

Evaluating training programmes: A grounded theory exploration of training evaluation as experienced by managers working in the textile industry in Bangladesh and the development of a new approach for the evaluation of training within that context

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## **Abstract**

The aim of this research was to assess the existing models for the evaluation of training and propose a context specific theory and model for adoption by the textile industry in Bangladesh. The research adopted grounded theory as the methodology. That guided the approach to literature inclusion, the in-depth interviews with a sample of 45 managerial and training provider participants and subsequent data analysis. Consequently, the research proposed a conceptual framework which led to the development of a new model for use in that particular context. The substantive theory and model developed explained how training could be evaluated effectively in a different cultural and business context from that of all existing theories and models. The research therefore made significant theoretical, managerial practice and methodological contributions to the subject.

The findings identified a new approach to the evaluation of training outcomes based on two causal conditions, six contexts, one intervening condition, six processes and four consequences/outcomes. These factors offered a different approach and way to evaluate training compared to the existing models. For example, the consequences/outcomes of training evaluation reflected evaluation based on the immediate outcomes, direct outcomes, behavioural outcomes and performance outcomes of training.

The outcome from this research offered a significantly improved integration of theory and practice for the effective evaluation of training within the context of the textile industry in Bangladesh. Consequently, that reflected both the managerial and theoretical contributions of the research. The proposed theory and model were unique to textile industry in Bangladesh and provided managers and training specialists with both data on the consequences of the training provided and guidelines on how approach the future design and delivery of training activities.

Finally, the research identified several areas for future research into specific aspects of training, its evaluation and the means of monitoring it. The methodology adopted was also a contribution to existing knowledge about the use of the grounded theory methodology in developing economies, specifically, the textile industry within Bangladesh.

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## **Declaration**

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed:

Date: 27/03/2020

### **STATEMENT 1**

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed:

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## Glossary

The major terms that were used in this thesis are explained below:

**A substantive theory:** A substantive theory emerges from conceptual categories which are grounded in the research data. Grounded theory is substantive in nature as it focuses on particular problems in a specific setting, or it is used to explain phenomena in a substantive area (Corbin and Strauss, 2015; Charmaz, 2014).

**Action and interaction strategies:** Action and interaction strategies are taken to manage or to handle a phenomenon under a specific set of perceived conditions that has certain outcomes or consequences (Strauss and Corbin, 1998).

**Axial coding:** Axial coding is the process of reassembling data that was fractured and labelled during the open coding process (Charmaz, 2014; Strauss and Corbin, 1998). Axial coding seeks to relate the identified categories to the subcategories forming their properties and dimensions (Strauss and Corbin, 1998).

**Causal conditions:** Causal conditions represent events, incidents and happenings that lead to the occurrence or development of a phenomenon (Corbin and Strauss, 2015).

**Conditional relationship guide:** A conditional relationship guide clarifies the links between the categories and subcategories. It enables an understanding of the relationships among the categories required to complete the reflective coding matrix.

**Consequences:** Consequences are the outcomes or results of action and interaction strategies (Strauss and Corbin, 1998).

**Context:** Context represents a specific set of properties that pertain to a phenomenon. That is, properties or attributes relating to a phenomenon are located along a dimensional range. Context is therefore the particular set of conditions in which the action/interaction strategies are taken to manage, or respond to, a specific phenomenon (Strauss and Corbin, 1998).

**Core category:** The core category is the central phenomenon around which all other categories are based. Once this has been identified, the storyline is generated as a restatement of the project in a form that relates to the core category (Corbin and Strauss, 2015).

**Data saturation:** Data saturation is when the same patterns occur over and over again and no new properties emerge (Charmaz, 2014; Glaser, 2001). In data saturation, the research reaches a point during data analysis when it is recognised that sampling more data will not lead to additional or new information being identified in relation to the research questions. Essentially, it emerges when the researcher finds only familiar data emerging again and again. At that point, they can confidently decide that the data is saturated, and consequently, a theory can be derived from what is already available.

**Grounded theory methodology:** Grounded theory is a fully-fledged methodology which provides a dynamic tool and allows the phenomenon being investigated to be understood through interaction between researcher and participants (Corbin and Strauss, 2015; Creswell, 2012; Denzin and Lincoln, 2011; Payne, 2007; Charmaz, 2006; Suddaby, 2006). Grounded theory methodology has a distinct philosophical positioning and theoretical underpinning (Becker, 1993). It is the methodological foundation that makes a research strategy different in identifying the empirical data needed to derive a theory based on an inductive research approach (Corbin and Strauss, 2015; Creswell, 2014; Payne, 2007; Wimpenny and Gass, 2000).

**Intervening conditions:** These represent the broad and general conditions bearing upon action/interaction strategies. They may be regarded as the broader structural context pertaining to the phenomenon and act to either facilitate or constrain the action/interaction strategies taken within that context (Corbin and Strauss, 2015).

**Open coding:** Open coding is the initial stage of the data analysis process through which data is broken down and conceptualised. Labels are assigned to the data in order to identify the categories, their properties and dimensions (Charmaz, 2014; Strauss and Corbin, 1998).

**Paradigm model:** The paradigm model is used to link categories and subcategories in a set of relationships. These relationships describe the phenomenon under study in terms of a set of conditions (causal, contextual) and in terms of action/interaction strategies and their consequences (Strauss and Corbin, 1998).

**Phenomenon:** The central idea, event or happening that a set of actions/interactions is directed at managing or handling, or to which the set of actions is related (Strauss and Corbin, 1998). Every phenomenon is subject to a number of conditions (causal, contextual, intervening).

**Reflective coding matrix:** A reflective coding matrix captures a higher level of abstraction. It is a relational hierarchy to develop and contextualise the core category to which all other subcategories relate (Strauss and Corbin, 1998).

**Selective coding:** Selective coding involves the process of selecting and identifying a core category and systematically, relating it to all other categories. It is the process of integrating categories through which a theory can be derived (Strauss and Corbin, 1998). It involves validating those relationships, defining categories, followed by refining and developing those categories.

**Theoretical sampling:** Theoretical sampling is a process of data collection in order to generate theory. A researcher collects data and analyses it after each interview and then decides what data to search for a collect next allowing a theory to be generated as data emerges.

## **Chapter 1: Introduction to the research**

### **1.1 Introduction**

This chapter described the background to, and motivation for, undertaking the research. This chapter also clarified, explained and justified the choice of research context, the aim of the research and the research questions. The research paradigm and philosophical assumptions underpinning grounded theory research will be introduced along with a justification for the use of literature at an early stage in grounded theory research. The chapter justified the use of grounded theory and explained the theoretical and practical contributions of the study. The chapter also defined and differentiated the terms theory and model and explained their use within the thesis. The chapter concluded with an outline of the thesis structure.

### **1.2 Background to the study**

The literature generally referred to training as the systematic acquisition of knowledge and skills that provided the potential for work performance improvement in the trainee their (Bulut and Culha, 2010; Towler and Dipboye, 2009; Aamodt, 2007; Velada and Caetano, 2007; Goldstein and Ford, 2002). Several writers (for example, Halfmann, 2013; Chih et al., 2008; Salas and Cannon-Bowers, 2001; Buckley and Caple, 2000) expanded that definition by adding attitudes to the development of knowledge and skills in order to enhance performance across a wide range of work activities. Whichever definition was preferred, it was clear from the literature that effective training represented an important contributor to the ongoing commercial success of an organisation and therefore, an important capital investment. Based on that view, Aghazadeh (2007) and Philips (2003) pointed out that the justification for the assessment of training effectiveness was based on the management need to determine the degree to which the objectives set for it were achieved, the extent that it contributed to commercial success and delivered value for money. In order to achieve that intention, training evaluation models need to be grounded in theory, contain suitable methods for the process of evaluation and be appropriate, effective and robust in practice. A number of training evaluation models have been developed over the years. For example, the 5 level models of Richard (2011), Guskey (2000), Philips (1997), Kaufman (1995), Hamblin (1974) and Kirkpatrick's (1959) 4 level approach (chapter 2 for a detailed discussion).

Since Kirkpatrick introduced the four-level training evaluation model in 1959, several new or enhanced models to evaluate the success and value of training have been proposed (Wang and Wilcox, 2006). Other writers (for example, Khalid et al., 2012; Aguinis and



Kraiger, 2009; Tamkin et al., 2002) claimed that the inadequacies of existing training evaluation models were a major reason why managers paid little attention to the need for it. For example, Scourtoudis and Dyke (2007) found that less than one percent of organisations evaluated the effectiveness of the training that they carried out.

According to Khalid et al. (2012) and Aguinis and Kraiger (2009), few publications reported research on the design and evaluation of training. According to Aguinis and Kraiger (2009), the development of an effective model for training evaluation that managers could easily relate to and adopt had yet to occur. The views of these writers were supported during the current research as very little published academic or professional material originated from developing economies including Bangladesh on the topic of training, development and its evaluation. Equally, the research failed to identify any published work relevant to the theory and practice of training or its evaluation in the context of the textile industry in Bangladesh. Given the heavy investment in training and development by many companies in developing countries including Bangladesh (Rahman, 2012), the current research was clearly justified.

Based on that background, the research intended to review company practice for, and managerial perspectives on, the evaluation of training within the context of the Bangladesh textile industry. From that research data and what relevant literature could be identified, a context specific theory along with a conceptual framework and training evaluation model would be proposed. The objectives for the research emerged from that aim. Subsequently, the specific research questions were identified from the objectives to guide and direct the research in the pursuit of the identified aim. In overview, the research critically reviewed the existing literature and sought (through field research and literature) to address weaknesses in the existing models of training evaluation as relevant to the textile industry in Bangladesh and to develop as the outcome, an appropriate context specific theory and model.

The initial literature review (discussed in chapter 2) suggested that training could be assessed based on trainee reaction to, and satisfaction with, the learning event; the learning achieved and the assessment of subsequent trainee behaviour and organisational results. The second stage literature review carried out during analysis of field data (discussed in chapters 4 and 5) addressed these issues in greater depth and added further theoretical insights about how training design, individual differences and organisational culture potentially impacted on training outcomes and evaluation. Six categories of evaluation were identified (from the analysis of interview data) that respondents thought could be used to assess the value of training programmes. All the outcomes were grounded within the context specific data

(discussed in chapter 4). The literature research carried out during the analysis phase of the research was integrated with the managerial perspectives that emerged from the field research and used to identify similarities and differences between them. That in turn underpinned and justified the development of a context specific model for evaluating training within the context of the textile industry in Bangladesh. The model developed through this research represented a major improvement over existing models in terms of it being more appropriate and more effective in offering managers in the research context a practical way to evaluate the training that they provided (chapter 5). The research also identified areas for further research, indicated at appropriate points in the thesis.

Prior to the main research project, a pilot study was carried out as a PhD programme assignment focussed on the requirements necessary for the completion of the full-scale project. The pilot research demonstrated that 30 large and medium sized companies from the textile industry that provided training and measured its effectiveness would be an appropriate number to include in the main research. The selection of which organisation to include in the research sample is fully explained in section 1.4 and its subsections. The pilot study also identified grounded theory methodology as the most appropriate choice for the main research because of its exploratory nature because of the lack of previous research in the specific context. During the pilot research, questionnaires were found to be an ineffective technique through which to effectively capture the full range and depth of respondent views in relation to training evaluation. For example, questionnaires assumed a degree of prior respondent knowledge relevant to the questions and did not fully capture participant insight and experience (Check and Schutt, 2012; Ponto et al., 2010). Also, when using a questionnaire, some questions might be ignored, or limited thought given to any question before responding. Both potentially affect the completeness and meaningfulness of the research data and hence the validity of the findings (Cresswell, 2014; Check and Schutt, 2012; Singleton and Straits, 2009; Strauss and Corbin 1998). Creswell (2014) and Ritchie and Lewis (2003) explained that interview imposed no restrictions on the content and manner of respondent answers, thereby encouraging flexibility and freedom in asking questions and providing responses. Thus, the interview method was selected to enable respondent views and feelings to be more effectively probed and therefore better understood. That approach produced comprehensive data about respondent views and experiences, which produced a more fulsome and representative analysis which led to stronger conclusions and outcomes from the research (discussed in chapter 4).

### **1.3 Motivation behind the study**

Existing training evaluation literature offered theories and models based on context specific research from western, developed economies. However, that research could not claim universal application because it did not incorporate significance testing to justify such claims (Corbin and Strauss, 2015; Crouch and Mckenzie, 2006; Ritchie and Lewis, 2003; Strauss and Corbin, 1998). Many factors differed between contexts and which might impact on the ability to transfer research findings between them. For example, differences in economic structure along with infrastructure, organisational and cultural differences might limit the ability to transfer research findings between contexts (Ritchie and Lewis, 2003). However, that did not imply that everything differed between contexts. For example, some elements within existing training evaluation models could be relevant to less developed contexts. That provided an opportunity for the current research to identify which elements could be safely transferred to the context of the textile industry in Bangladesh and which might need modification or replacement with context specific elements. Several writers (for example, Aguinis and Kraiger, 2009; Anderson, 2009; Salas and Cannon-Bowers, 2001; Kozlowski et al., 2000) argued that existing training evaluation models were problematic and produced inaccurate outcomes as a result of the incorporation of invalid elements and assumptions within them (discussed in chapter 2). That also provided an opportunity for the current research to contribute to the development of theory and practice in training evaluation.

In addition, several potentially relevant factors were ignored by the existing training evaluation models. For example, culture represented a fundamental component of society and was also deeply embedded in organisational systems and the actions of employees, firms, suppliers, customers and governments that operated within each culture (Lodorfos and Boateng, 2006; Sirmon and Lane, 2004; Hofstede, 2001). People were fundamentally and deeply embedded within the culture surrounding them through experience and sharing it with other people in the same environment (Hofstede, 2001; Datta and Puia, 1995). Culture varied between organisations and countries which could lead to confusion and in extreme cases conflict between the employees from different cultures, between organisations and international customers and also between satellite companies and parent companies located in different parts of the world (Datta and Puia, 1995). It could also lead to conflict between managers and employees within a company where the prevailing (or dominant) organisational culture was not aligned with management objectives. Hofstede (2001) suggested the need to mitigate cultural differences through the creation of understanding of the different cultural dimensions and practices that existed. That would consequently lead

to the implementation of strategies that would impact on all business activities, functioning and processes. For example, the research identified that in relation to training, the elements within the pre-learning stage (individual differences, work climate and organisational culture) could all produce a significant impact on training transfer outcomes (Grossman and Salas, 2011; Blume et al., 2010; Tracey et al., 1995). All the culture and related issues found by the research to be relevant to training evaluation were ignored in the existing training evaluation literature.

The researcher studied business and human resource (HR) at university and worked as an HR manager in the textile industry in Bangladesh for one year, and so gained experience in the design, planning and delivery of training in that industry. The research context was the researcher's home country, which along with work experience in the textile industry, facilitated organisational access through personal contacts. That meant that meaningful research data could be collected relatively easily. More importantly, the local and organisational culture and language were familiar and understood by the researcher which contributed to the collection of meaningful research data, an effective analysis and the development of findings that were effectively and strongly located within the research data and context.

In summary, therefore the research identified that the existing models for training evaluation contained weaknesses and that only limited use of existing models existed in practice. Plus, the research found that there was no existing training evaluation model that could lay claim to originate from, or be demonstrably relevant to, the proposed research context. Consequently, an opportunity for research to develop a context specific relevant theory and model existed.

#### **1.4 The context for the research and the justification for Bangladesh and the textile industry as the research focus**

A developing country was defined as a nation with a less developed industrial base and a lower Human Development Index (HDI) relative to other countries (UNDP, 2018). According to the United Nations Statistics Division (2013), developing countries were typically defined by their Gross National Income (GNI) per capita per year, with a GNI of US\$11,905 or less. World Bank (2015) data indicated that countries slightly over US\$ 11,905 would be considered a developing country for the year 2017 and the situation reviewed again for 2018. Developing countries faced many challenges and problems, which included rapid urbanisation which also created high levels of unemployment, environmental pollution, population density, inadequate infrastructure and poverty (UNDP, 2016).

However, developing countries played a significant role in global trade as they were heavily involved in the globalisation process. It was predicted that their role in global trade would more than double in 40 years from 2000 (WTO, 2005). For example, the same source predicted that the value of exports from India, China, Thailand, Bangladesh and Kenya would increase from 39% of world trade in 2006 to 69% in 2050.

In the 1980s, the leading textile exporting countries were West Germany and USA. However, by the 1990s these had been replaced by developing countries including China and Bangladesh (Dickerson, 1999). The developed world had become heavily dependent on output from the clothing industries in developing countries (UNIDO, 2013b). The developing world accounted for half of world textile exports and almost three-quarters of world clothing exports (UNCTAD, 2005). According to UNCTAD, Asia was the biggest exporter in those sectors, and in 2004 it accounted for about 45% of world textile exports and 47% of world clothing exports. The 2014 WTO statistics showed that in 2013 Bangladesh, India, Pakistan, Sri Lanka, Thailand, Vietnam, Indonesia, Malaysia and China all ranked among the top 15 textile and clothing exporters.

Over recent years, manufacturing went through a period of significant technological change (UNIDO, 2013b; McKinsey and Company, 2012). Konzen and Locker (2000) pointed out that rapid change in the textile and apparel markets had been facilitated through the increased adoption of technological and other innovations in those manufacturing industries. For example, in the textile industry, high-speed spinning frames and looms were developed in the 1950s and early 1960s, and during the 1970s rotor spinning and shuttle-less looms were introduced (UNIDO, 1993). Although, micro electronics based technology and the automation of industrial processes were introduced in the developed world from the late 1970s onwards, take up of the latest technology was very slow in developing countries (Konzen and Locker, 2000). A major reason being that countries such as India, Pakistan, Bangladesh, Malaysia, Vietnam, and Indonesia relied heavily on the availability of relatively cheap labour for employment in textile weaving. Those industries also relied on antiquated, often second hand machines (UNIDO, 2013a). In the textile industry, major technological change took place in the 1980s with the introduction of computer-aided design (CAD) to create garments, computer numerical control (CNC) cutting systems and computer-aided manufacturing (CAM) automated manufacturing processes (Gray, 1998; Groover and Zimmers, 1984). Since then, the adoption of CAD and CAM systems were gradually introduced in developing countries including Bangladesh, Thailand and Sri Lanka (UNIDO, 2015; Wijayasiri and Dissanayake, 2008; UNIDO, 1993).

In South and East Asian countries, the manufacture of labour-intensive products which included textile accessories, clothing, and shoe products became major sources of export in the early 1990s. That contributed to poverty reduction through the employment of unskilled workers (UNIDO, 1993). Textile industries could support a range of businesses from small to large and had a global focus compared to other economic sectors within developing countries, which contributed to economic development and poverty reduction (Halfmann, 2013). Foreign investment in garment industries was also a significant factor in economic growth for several developing countries, specifically, Bangladesh, India, China, Sri Lanka and Kenya (UNIDO, 2013a; Kinyanjui and McCormick, 2002). Exports of clothing from these developing countries to the USA, UK and Canada increased significantly after 2000 (UNIDO, 2013b). In response to demand growth, developing countries increased the rate of high technology adoption in the textile and clothing industries (Kinyanjui and McCormick, 2002). That was because computer technology was able to achieve and maintain efficiency of production, along with flexibility and standardisation in quality, which reduced manufacturing costs and increased the speed of response to changes in customer demand (Konzen and Locker, 2000).

Over recent years, textile companies in developing countries had, of necessity, to focus on employee training in order to create the skilled labour required to operate the increasingly technologically advanced manufacturing processes (Salinger, 2006; Konzen and Locker, 2000). However, as indicated in the previous section, there was only limited evaluation of training programmes within those contexts, and what little existed was grounded in models developed in very different contexts. A review of existing literature in chapter 2 showed that to the date of this research, no attempt had been made to explore training programme evaluation theory, models or practice in a developing country context. Therefore, the movement of textile manufacturing from developed to developing countries, along with the increased rate of technology adoption and the associated change in training requirements provided additional scope for undertaking research within that context.

#### **1.4.1 The context of Bangladesh**

Bangladesh embraced geographical and cultural diversity and contained nearly 50 sub-nations that lived together and maintained their own traditions, culture and religious practices. Thus, the country was of multicultural significance (National Report, 2012). The strength of the economy of Bangladesh rested to a significant extent on a vibrant rural economy, which included both agricultural and non-agricultural sectors. Other significant contributions to economic activity came from the money repatriated by expatriate workers along with the export of readymade garments, jute and jute goods, fish, tea and

pharmaceuticals (National Report, 2012). According to Mustafizur et al. (2009), Bangladesh had managed the macro-economic factors of its economy effectively over the years, which helped it grow and avoid being significantly affected by the 2008 crisis in the global economy.

Bangladesh sought to promote sustainable development anchored on three pillars economic, social and environmental (UNDP, 2016; National Report, 2012). Sustainable development should be centred on people, implying that the process was inclusive and promoted unity in cultural and other forms of diversity (UNDP, 2016; UNIDO 2015; National Report, 2012). Hence, Bangladesh adopted policies which included encouragement for ethnic groups to use their individual languages where appropriate; the promotion of the rights and prospects of women and children through the provision of equal education and service facilities; along with religious freedom for all cultural groups (UNDP, 2016). The country also focussed on the socio-economic development of various disadvantaged groups including street children, physically challenged people, and people from undeveloped areas, through health service provision, education support and participation in decision making at a local level (National Report, 2012). According to UNDP (2018), Bangladesh was one of the countries that had made the greatest progress over recent decades, as measured by the HDI. The same source indicated that the HDI for 2017 was 0.608, and that it had increased by 57.1% over the previous 27 years.

The private sector in Bangladesh was reported to be aware of the challenges of doing business in a sustainable way in response to environmental degradation, global climate change and changes in business negotiation processes (National Report, 2012). The investment in infrastructure, adoption of improved production processes and skills training were identified as necessary to further improve productivity and sustainability in economic sectors including agriculture, textile and clothing industries, international trade, rural development, education, environment, and forestry (UNDP, 2016; Islam, 2014; National Report, 2012).

In addition to the increased adoption of high technology manufacturing processes, information communication technology (ICT) was being increasingly adopted in both private and public sectors of the economy (Azam and Quaddus, 2013; National Report, 2012). At the beginning of the 21<sup>st</sup> century, the government was engaged in discussions with the international community to secure duty free and fairer access to the markets of all advanced economies for pharmaceutical, textile and readymade garment and other exportable products (National Report, 2012). Trade liberalisation by the EU, Japan and

Canada helped Bangladesh's exports grow sharply between 1991 and 2009, which raised the share of exports within GDP from 5.54% to 17.41%. Foreign Direct Investment (FDI) also facilitated development in Bangladesh as a capital-poor country (Rahman and Ali, 2013; Azam, 2010) and became a requirement for the involvement of international businesses in the country (Quader, 2009). The United Kingdom gained first position among the top 10 countries investing in Bangladesh during the years 1996 - 2010 with a sizeable proportion of the money going to the textile sector (Islam, 2014). Other countries that provided FDI inflows to Bangladesh included the USA, Egypt, South Korea, Netherlands, Singapore, Hong Kong, UAE, Japan, Malaysia, Australia, Denmark, and Switzerland (Razib, 2015; Islam, 2014). Over recent decades, a significant increase in international business and trade occurred as countries privatised their publicly owned business and opened their markets to foreign products and investment (Rahman and Ali, 2013). A trend that aided the growth of exports from Bangladesh. The result being that Bangladesh became a viable place to do business in the world. Despite suffering from political instability and inadequate infrastructure, the Bangladesh economy flourished and continued to grow. According to the Bangladesh Bureau of Statistics (BBS), GDP growth in the fiscal year (FY) 2015-16 stood at 7.11%, significantly up from 6.55% in FY2014-15 (BBS, 2016). Over recent years, many large and small Asian companies established operations in Bangladesh to take advantages of relatively cheap labour in order to market their goods to the fast-growing Bangladeshi middle class (Saha, 2016). A trend that further added to Bangladeshi economic development and growth.

Bangladesh played a significant role in global trade by exporting and importing manufactured products such as readymade garments, ceramics, pharmaceuticals and agricultural goods. It was therefore an active participant in the globalisation process (Halfmann, 2013; National Report, 2012). Export earnings from textile and readymade garments accounted for US\$21.5 billion in 2013 representing 80% of Bangladesh's total annual export earnings (BGMEA, 2015; Hossain and Moon, 2014). Bangladesh was increasingly significant in the global apparel industry. For example, Bangladesh had overtaken India in the volume of apparel exported by the end of 2009 (Hossain and Moon, 2014). Bangladesh was better placed to gain international competitive advantage compared to many other developing countries including India, Sri Lanka, South Korea and Hong Kong. That was due to the availability of relatively low-cost labour and historical linkages with international markets across several key industrial sectors including textiles (Hossain and Moon, 2014; Jahid, 2013; Haider, 2007). Within the South Asian region, Bangladesh also gained by taking advantage of regional accumulation, and other initiatives. For example,



through free-trade agreements with India, Sri Lanka, and other trade groups such as the South Asian Free Trade Area (SAFTA, 2018).

The World Bank (2010) country assistance strategy 2011-2014, recognised that Bangladesh had a good track record for growth and development compared to other South Asian countries. That in turn facilitated significant poverty reduction and social transformation (World Bank, 2015; National Report, 2012). Absolute poverty had declined to 31.5% by 2010 and reduced further to 29% by 2015 (Bangladesh Bank, 2017; UNDP, 2016). The government emphasised all major sectors of the economy as part of its commitment to meeting the millennium development goals of Vision 2021 (National Report, 2012). Bangladesh attracted international attention among development economists for the progress achieved in the social indicators of poverty alleviation. Positive improvements were found in the reduction of child mortality, economic growth, increased life expectancy, gender equality and the provision of education, learning and training across all economic sectors (UNDP, 2016; World Bank, 2015; National Report, 2012). Several studies indicated that Bangladesh performed much better than other South Asia countries including India, Nepal, Pakistan, and Sri Lanka on these social indicators (World Bank, 2015; Islam, 2014). In Bangladesh, companies in textile, clothing and pharmaceutical; along with non-government organisations (NGOs) had a significant role in poverty reduction and were actively engaged with it through their corporate social responsibility policies (UNDP, 2016; National Report, 2012).

Through globalisation, Bangladesh achieved significant progress across all three pillars of sustainable development, especially in the social element (Bangladesh Bank, 2017; National Report, 2012). Akther et al. (2018) argued that organisations in Bangladesh had been significantly impacted by change in the diversification of employment, increased levels of employee expectation and skill, the introduction of new systems and technology. Added to which, the globalisation of supply chain management; changes in customer perceptions of quality, choice and brand identity; and a massive degree of change was required. That level of change had to be accommodated to achieve sustainable competitive advantage. From the data above, Bangladesh clearly achieved success in its development of a significant global presence. As well as being a major exporter, Bangladesh increasingly imported more goods and services from both developed and less developed countries as the population developed economically, socially and culturally and became consumers (Bangladesh Bank, 2017; Hasan et al., 2016). Bangladesh seaports provided maritime access for the landlocked economies of Northeast India, Nepal and Bhutan (World Bank, 2015). Many companies from Northeast India, Nepal, and Bhutan moved their business operations to Bangladesh, because it was an important regional economic hub. In recent years,

Bangladesh also achieved the status of a potential gateway to China and to that end, a strategic highway was proposed to run from the southwest of China to the south of Bangladesh via Myanmar (Rahmatullah, 2009).

As previously suggested, culture represented an important factor in the effective functioning and success of an organisation. Culture was a significant force that shaped the values, lifestyle, beliefs and attitudes of everyone who interacted with an organisation and was subject to subtle changes over time (Hofstede, 2001). According to Parboteeah et al. (2005), national culture was one of the important influences on people perceptions, thoughts and attitudes. It also influenced and shaped national institutions and other characteristics within nations. People within each culture developed their own understanding, perceptions and ideas about, how they fitted into that context and therefore what behavioural expectations fell on them. However, that understanding and expectation was mostly intuitive and left unspoken. Several writers identified and discussed aspects of culture that were relevant to the current research. For example, Hofstede (2001) proposed four dimensions on which the differences between national cultures could be understood: individualism, power distance, uncertainty avoidance and masculinity. White et al. (2010) included cultural aspects when they suggested the requirement for effective communications in international business. Salacuse (1999) suggested that negotiation styles and practices differed between cultures. Brett (2017) extended that view and suggested that because individuals from different cultures had different social interaction patterns and difference resolution processes, that negotiation practices and power distance preferences would vary between cultural contexts. According to Abdullah et al. (2011), Bangladesh could be regarded as a high power distance country with strongly centralised authority. People were generally therefore heavily dependent for the directions and instructions on those holding positions of power. Specifically, in the workplace, subordinates generally accepted their position relative to their boss and did not expect participation in the decision making process. McLean and Lewis (2010) included cross-culture management, the impact of cultural diversity, cross-culture awareness training and cross-cultural communication as important factors in their review of culture in international business. Abdullah et al. (2011) suggested that Bangladesh provided an opportunity for the development of cross-cultural awareness within firms and among their stakeholders as they were required to adapt to globalisation in the twenty-first century. Abdullah et al. also suggested that managers must know how to communicate effectively with individuals and global business partners, within a cross-cultural environment.

Zhangwen and Hoque (2017) stated that in organisations where managers were taskmasters

rather than facilitators, employees lived in fear and distrusted management. Consequently, in such situations work was regarded as a chore and boring. Since employees managed by taskmasters were not involved in decisions about, or the direction of, organisational goals, they did not understand the implications of their tasks and hence, were unlikely to be committed to achieving them. Abdullah et al. (2011) explained that culture provided a framework for understanding the normal and expected employee behaviour in the workplace. For example, power distance, goals and values and the existence of a learning culture were considered by Abdullah et al. to be integral parts of the growth process of an organisation. That process included the degree to which it fostered employee commitment to the organisation and its objectives. He argued that where a positive and supportive organisational culture existed, employee goals and objectives were more closely aligned with those of the organisation. If employee efforts were appreciated and suitably rewarded by management, levels of job satisfaction and performance improved. Also, employees would also tend to feel more responsible for the overall well-being of the organisation. Taken together meaning that commercial success was more likely. Zhangwen and Hoque (2017) found that the negotiation processes in management and particularly in relation to employee relations in Bangladesh were heavily dependent on the nature of power distance and its role in the negotiating process. They found that 54% of respondents in their research considered negotiation as a way to build relationships where power distance was low. Therefore, power distance determined to a significant extent the levels of performance and commitment delivered by employees. Consequently, they argued that it was in the interest of organisations to minimise power distance and consider negotiation as a way to build employee relationships in order to foster a positive workplace environment. Such an environment they argued could be achieved when employees were involved in human resource activities such as planning, motivation and the development, organisation and delivery of training. When Bangladeshi executives negotiated any business deal, 58% of them (according to Zhangwen and Hoque, 2017) chose to focus on power distance. That meant that their preferred approach was to find a joint resolution of any problems in order to achieve a satisfactory deal. Points also supported by Abdullah et al. (2011). Abdullah also found that the best way to maintain good relationships with counterparts was through the creation of an effective learning culture and positive values at work. Wan Lee et al. (2012) and White et al. (2010) found that internal company communication could be influenced by national culture in Asian countries where power distance and collectivism were higher than in western cultures. In the age of globalisation, managers (including those from Bangladesh) were required to frequently negotiate effectively with counterparts from different cultural backgrounds. Consequently, managers at all levels needed an awareness of culture and how

it influenced business in negotiation, decision making and many other ways (Zhangwen and Hoque, 2017; Abdullah, et al. 2011). Issues that have many training implications. Culture will be included as appropriate to the research throughout the thesis.

Based on the above discussion, Bangladesh therefore provided opportunities for research owing to its unique economic and cultural situation as well as its geographic location (Akther et al., 2018).

#### **1.4.2 Justification for choosing the textile industry in Bangladesh**

The textile industry was chosen as the research context because of the significance of the industry to Bangladesh. According to Kafiluddin (2012), in addition to its direct role in exporting, the textile industry made a significant contribution to the supply of raw materials to the Bangladesh readymade garment (RMG) industry for use in the manufacture of clothing goods. The textile industry consisted of 3 distinct types of manufacturing (BTMA, 2008):

1. Fabric manufacturing
2. Yarn manufacturing
3. Dyeing, printing, clothing and finishing mills

The textile industry occupied a unique position in Bangladesh as it represented one of the largest and most significant sectors in the economy and provided social and environmental development (Hasan et al., 2016; Hossain and Islam, 2015; Haider, 2007). It was a significant part of the broader textile and garment industry (the largest exporting industry) which had experienced phenomenal growth over the previous 25 years (Hasan et al., 2016; Chowdhury, 2014; Haider, 2007). The textile industry operated continuous production in a high quality, rapid response, just-in-time market for the delivery of export goods based on continual interaction between exporter and importer (Adnan et al., 2015; Rahman, 2012; Tarek, 2008). According to BTMA (2008), the textile sector's contribution to the GDP of Bangladesh was 13% in 2007, rising to 17% in 2013 (Chowdhury, 2014). 81% of the export earnings of Bangladesh were from textile and textile related products (Rakib and Adnan, 2015; Mahmud, 2012) and 40% of industrial value-added production came from the textile sector (BGMEA, 2015). Islam et al. (2013) found that in 2012 the textile industry accounted for 45% of all industrial employment in Bangladesh, employing 4.2 million people (BGMEA, 2015). It was the fastest growing industry in Bangladesh (Hasan et al., 2016; Chowdhury, 2014). The clothing sector within the textile industry provided a significant (and growing) number of jobs for women workers (BGMEA, 2015) which further contributed to the achievement of the social element of sustainable development

discussed earlier. The textile industry was therefore very significant (and growing in importance) to the wealth and future development of Bangladesh, a point first argued by Haider (2007).

Over the thirty years prior to 2010, international trade and investment in the global textile and garment sectors was controlled by the Multi-Fibre Agreement (MFA) (Jahid 2013; Haider, 2007). That resulted in the application of quotas between the major garments importers (the United States, the United Kingdom, the European Union, Canada and Norway) and garment exporters from developing countries (BGMEA, 2015). Using the advantage of an insulated market under the provision of the MFA within the General Agreement on Tariffs and Trade (GATT), Bangladesh attained significant foreign exchange income, growth in exports, modernisation and industrialisation and the contribution from these to the rapid growth of GDP (Hasan et al., 2016; Jahid, 2013). To maintain GDP growth going forward, skills development training in the textile and clothing sectors emerged as essential in building work capability, developing production capacity, and enhancing the skill levels of local labour (Rahman, 2012). Factors that provided justification for the current research context.

Readymade clothing was exported from Bangladesh to around 90 countries including the UK, USA, Canada, Germany, France, Italy, Netherlands, Spain and Belgium (BGMEA, 2015; Razib, 2015). Bangladesh was the second largest garment exporter in the world (Bizvibe, 2017; McKinsey and Company, 2011). Bangladesh generated US\$28.09 billion in clothing exports in 2015-2016, a 10.21% growth over the previous year (Bizvibe, 2017). The denim manufacturing industry in Bangladesh was one of the largest in the world (McKinsey and Company, 2011). Bangladesh was the largest denim exporter to the EU with a market share of 23% and the third largest denim exporter to the USA after Mexico and China with a 11.3% market share (Bizvibe, 2017).

The textile industry faced many challenges to maintain its rate of growth and competitiveness in the global market (Hasan et al., 2016; Uddin, 2014; Jahid, 2013; Haider, 2007). The major reasons for the challenges to its position included competitive behaviour among other developing economies; level of investment required for new technology; increased cost of production; the investment needed in the continuous development of employee knowledge, skills and attitudes (KSAs); the lack of effective monitoring of employee skill and performance; increased energy costs and unfavourable trade policies in parts of the world (Shahriar et al., 2014; Islam et al., 2013; Haider, 2007). It was clear therefore that Bangladesh faced challenges if it was to meet the future demands of world markets (Jahid,

2013). To meet the demands of international customers, the textile industry needed to demonstrate that it had made significant improvement to several aspects of employment (Uddin, 2014). These included improvement in the protection of employee human rights; improvement to workplace safety; and the upgrading of policy and practice in the continuous training and development of employee (Mahmud, 2012). For example, to compete effectively in an increasingly global market, the textile industry needed to develop appropriate international marketing strategies and modern product design training programmes (Shariar et al., 2014; Rahman, 2012). Therefore, these requirements became, of necessity, the focus for attention and development by firms in the industry (Shariar et al., 2014; Mahmud, 2012; Tarek, 2008). That was because cost, design, quality assurance, flexibility of labour and production in the textile industry were critical factors that significantly impacted the ability of Bangladesh to maintain its position as a major exporter of readymade garments (Shariar et al., 2014; Uddin, 2014; Haider, 2007).

According to Haider (2007), the government of Bangladesh proposed that the textile industry needed to adopt new internet-based approaches to training and learning, along with the adoption of appropriate monitoring systems and the continuous review of training and its design. These were necessary, it was argued, to create versatile employee capability to maintain sustainable competitive advantage in the global markets of the 21<sup>st</sup> century (BGMEA, 2015). In 2005 the textile industry introduced a virtual learning platform for on the job training covering job instruction, coaching, mentoring, job rotation, apprenticeship and internship training (Tarek, 2008). Rahman (2012) suggested that many textile and garment companies in Bangladesh, invested significant capital in all forms of training (including e-learning) which contributed to their ongoing commercial success and therefore it was an important capital investment. Consequently, financial and business requirements existed for this activity to be monitored to determine the effectiveness and value of training and the degree to which the objectives set for it were achieved. In order to achieve that intention, training evaluation models needed to be grounded in theory and be appropriate, effective and robust in practice. Few publications reported research on training design, training needs assessment and training evaluation processes, and those that did were based on western contexts (Khalid et al., 2012; Aguinis and Kraiger, 2009). A view confirmed by this research which found very little published academic or professional material on the topic of training and its evaluation in developing economies, including Bangladesh (section 2.7). Aguinis and Kraiger (2009) went further by suggesting that the development of an effective model for training evaluation had yet to occur. Thus, the country and industry represented important research contexts to better understand the

theoretical and practical perspectives relevant to training and its evaluation and identify what might be done to ensure optimum outcomes for all stakeholders. Given the heavy investment in training by many companies in developing countries, including Bangladesh and the other factors indicated above, the current research was clearly justified.

### **1.5 Research paradigm and philosophical assumptions underpinning grounded theory research**

Research paradigm reflected the beliefs that guided research action (Cresswell, 2014; Bryman, 2012; Denzin and Lincoln, 2011; Lincoln et al., 2011). It consisted of ontology, epistemology, theoretical perspectives, methodology and research methods (Guba, 1990) (discussed in chapter 3). According to Crotty (1998), ontology reflected the nature of reality, that is, the nature of existence (Creswell, 2012; Lincoln et al., 2011; Guba and Lincoln, 2005). Crotty (1998) argued that ontology and epistemology were mutually dependent and difficult to distinguish conceptually because an ontological position implied a specific epistemological position and vice versa.

Epistemology was concerned with the form of knowledge (Denzin and Lincoln, 2011; Cohen et al., 2007; Guba and Lincoln, 2005) and sought to explain how that could be known (Denzin and Lincoln, 2011; Crotty, 1998). Consequently, it reflected how knowledge could be obtained, what it meant to know what was known and the relationship between the enquirer and the known (Denzin and Lincoln, 2011; Guba and Lincoln, 2005). This research recognised that multiple realities existed in the research context and sought to explore the data collected from the different perspectives provided by respondents. The research adopted a constructivist stance as its epistemological perspective because it encapsulated the belief that understanding the multiple realities in the research context would be most effectively articulated through interaction between the researcher and participants (discussed in section 3.2.2.2). Findings therefore expressed the phenomena being investigated in terms of their contextual understanding and significance (Saunders et al., 2015; Denzin and Lincoln, 2011; Charmaz, 2006; Guba and Lincoln, 2005).

The constructivist epistemological position governed the selection of the interpretive theoretical perspective (Crotty, 1998). The social construction of reality fell within the interpretive theoretical perspective (Flick, 2015; Crotty, 1998). Subsequently, that theoretical perspective guided the adoption of the grounded theory methodology for the research (discussed in chapter 3). Grounded theory was widely used in social research (Denzin and Lincoln, 2011; Payne, 2007; Suddaby, 2006) and was intended to provide understanding and insight into a given situation (Glaser, 2001). Grounded theory

methodology was chosen because it aligned with the philosophical position and epistemological stance of the research, along with its aim and objectives (sections 3.2.1 and 3.2.2). As a methodology, it had a distinct constructivist philosophical stance and interpretive theoretical perspective (Crotty, 1998) which made the research strategy unique as a way of deriving a theory by identifying appropriate empirical data through interaction between researcher and participants (Corbin and Strauss, 2015; Creswell, 2012). The research deployed grounded theory as a fully-fledged methodology, not just a means of data analysis (based on Corbin and Strauss, 2015; Charmaz, 2006; Strauss and Corbin, 1998). However, grounded theory data analysis methods were adopted to develop and validate the theory that emerged from the research data.

### **1.6 The initial literature review within grounded theory research**

In most research, the literature review would be conducted before the data collection and analysis phases of research to enable the contextualisation of the research, its design and choice of methods within existing knowledge (Creswell, 2012). However, in grounded theory research, a literature review prior to data collection and analysis was regarded by some as a constraining exercise. For example, pre-disposing the search for certain outcomes (Glaser, 2001; Strauss and Corbin, 1998; Glaser and Strauss, 1967). According to Charmaz (2014), grounded theory deliberately prioritised data collected from the field over existing literature. Doing so allowed understanding to be created from participant feelings, views and experience about a topic before being compared with existing knowledge. However, others argued that an early and brief literature review identified the rationale for a particular research approach (McGhee et al., 2007; Coyne and Cowley, 2006).

Payne (2007) remarked that a unique characteristic of grounded theory analysis was the dynamic interplay of data collection and data analysis which made for difficult decisions about when and how existing literature should be used. The earliest grounded theorists Glaser (1978) and Glaser and Strauss (1967) argued that a review of relevant literature should only take place when data analysis was completed. Subsequently, existing literature would be integrated with field data through comparative analysis once the core category had emerged, allowing a contextually based theory that took account of existing knowledge to emerge. According to Charmaz (2014, p.239), data collection and data analysis were “created from [the] shared experiences and relationships with participants and other sources of data” and the resulting theory “depends on the researcher’s views; it doesn’t and cannot stand outside of it,” meaning that existing literature was always subordinate to field data in the research process. The intention being not to ignore existing



knowledge but to engage with it critically and meaningfully through a focussed literature review after the field data was collected (Corbin and Strauss, 2015; Charmaz, 2014; Thornberg, 2012; Dunne, 2011; Charmaz, 2006). The rationale for this position being that the emergence of categories would not be contaminated by the imposition of prior knowledge not specific to the research context (Glaser and Strauss, 1967). By adopting the *tabula rasa* researcher stance, the researcher would have no prior understanding that could contaminate data collection or its analysis (Dey, 1999; Layder, 1998; Strauss and Corbin, 1998).

However, over time the stance of Strauss changed. For example, Corbin and Strauss (2015) and Strauss and Corbin (1998) explained that everyone brought considerable prior knowledge of professional and disciplinary literature to research, meaning that there could never be a true *tabula rasa* researcher. Corbin and Strauss (2015) recommended engaging appropriately with the existing literature as it had a role in all phases of research. They also argued that doing so enabled the identification of what was important for the development of a context specific theory. Their advice was to maintain an attitude of scepticism and not to allow literature (whenever it was used) to impose itself on the theory as it emerged from the analysis (Strauss and Corbin, 1998). Several writers (for example, Corbin and Strauss, 2015; Charmaz, 2014; Layder, 2013; Strauss and Corbin, 1998) advocated that a limited review of the literature should be undertaken at an early stage of the research in order to identify research problems, to formulate the research question and formulate a research plan.

In this research, a brief literature review was carried out at an early stage to provide academic honesty, to identify research gaps and clarify how the research would build on and contribute to existing knowledge (based on the work of Charmaz, 2014; Cutcliffe, 2000; Layder, 1998; Strauss and Corbin, 1998). Furthermore, it provided sensitising concepts and theoretical sensitivity that helped identify initial ideas for the research scope and sense of direction (Charmaz, 2014; Bowen, 2006). In addition, before the research was approved it was necessary to submit a research proposal that included a literature review on the proposed topic. However, an extensive literature review was delayed until after the data analysis phase of the research. That allowed the requirements of the academic process for research approval to be complied with and provided guidance on research design, knowledge gaps and the research questions, meaning that the conclusions that emerged were grounded in the research context and appropriately linked to existing knowledge (table 1.1).

Table 1.1: How the literature review was used in the initial and subsequent stages of the research

Purpose	Examples of how used within the research	
	Preliminary literature review prior to the research being undertaken	Literature review during data analysis phase of the research
To identify knowledge gaps.	The main gap identified: 1) There is no training evaluation model developed in a developing country context.	The main gaps identified: 1) The potential relationship between training and employee performance, commitment and creativity were not captured by existing training evaluation models. 2) The behavioural outcomes and performance outcomes of training were not captured in the existing training evaluation models. 3) That individual differences and work environment factors had the potential to impact on training transfer outcomes and training evaluation context but were ignored in the training evaluation literature. 4) Potential contextual factors were ignored in the existing training evaluation models.
To formulate the broad research question.	The literature on training evaluation provided a number of conceptual areas to examine, for example, training evaluation contexts and processes. Thus, supporting the formulation of questions to ask participants.	The exploration of the processes that were or could be adopted by organisations to evaluate training in relation to the previously identified training contexts in the textile industry in Bangladesh. It confirmed respondent views that six processes could assess the contexts of trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity within the textile industry in Bangladesh.
To provide insights into where to carry out the research. To validate research findings and contribute to new knowledge following field data analysis.	The lack of literature on training and its evaluation in developing countries, including Bangladesh provided the basis for location selection for the research. The significance of the textile industry in the economic and social development of Bangladesh was also identified through literature and contributed to its selection as the focus of the research.	Research findings were integrated with existing literature, for example, the training evaluation factors and levels identified by the research. That indicated where existing theory was deficient in relation to the context of the textile industry in Bangladesh. It also allowed a clear contribution to new knowledge, for example, through the development of the revised training evaluation model incorporating additional factors specific to the research context.

### 1.7 The aim and objectives of the research

The preliminary review of existing literature enabled the development of background concepts before entering the field research stage. For example, existing training evaluation theory and models had emerged in developed economy contexts and might not be generalisable to the developing economy context of Bangladesh, or the textile industry within it. However, that literature provided a meaningful basis from which to explore the topic in the context of the textile industry in Bangladesh. The preliminary literature research was used to provide the basis for identifying the aim for the research, the objectives and the

specific research questions to be addressed.

The aim that originally emerged was based on the identification of issues that had not previously been addressed through research or the experience of the researcher. Grounded theory research often began with a broad research question or aim which became more specific and focused as the research progressed (Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998). That pattern was evident in this research as the originally identified aim (for the pilot research) for was refined and became, “to assess the existing models for the evaluation of training and subsequently, to propose a new theory based on the context of, and managerial perspectives from, the textile industry in Bangladesh and to explore the potential of a model based on the emergent theory for use in that context.”

The specific objectives for the research that flowed from the aim were:

1. To understand company practice in the textile industry in Bangladesh for the evaluation of training programmes.
2. To explore the views of relevant managers and training specialists about any additional factors that could be used to evaluate training programmes.
3. To explore the thoughts of relevant managers and training specialists about the techniques/ methods that could be used to assess the factors identified to measure the value or success of training programmes.
4. To analyse the views of relevant managers and training specialists about any intervening factors that could influence the evaluation of training programme outcomes and processes.
5. To assess the existing models for the evaluation of training from the perspective of the Bangladeshi textile industry context.
6. To generate a context specific theory and practical model that could provide a more appropriate means of measuring the effectiveness and value of training provision.
7. To compare the context specific theory and model developed through the field research with the existing theories and models of training evaluation to identify any benefits and contributions that arise from it.

The term relevant managers and training specialists used in the objectives above refer to the categories of people who formed the respondent population for this research (section 3.6.1 and appendix B for a detailed explanation).

### **1.8 The research questions**

The conceptual framework, goals, research methods, validity and research questionnaire were closely integrated with each other in the research process. The Maxwell (2013)

interactive model was followed as the basis for the establishment of a link between the research questions and the other components of the research (chapter 3, figures 3.4 and 3.5). The research questions provided the specific issues to be addressed during the field research, which in turn led to the identification of appropriate research methods to achieve the desired outcomes and research validity. As a result, the following research questions emerged that allowed the objectives to be met and therefore, the aim of the research to be achieved. The specific research questions were:

1. How companies in the textile industry in Bangladesh assessed the effectiveness of training programmes? (relevant to objectives 1 and 5)
2. What other factors were required or useful for the evaluation of training programmes within the textile industry in Bangladesh? (relevant to objectives 2 and 5)
3. How the factors identified in RQs 1 and 2 could be measured in order to assess the value or success of training programmes in the context of the textile industry in Bangladesh? (relevant to objectives 3 and 5)
4. What factors influenced the evaluation of training programme outcomes and processes (relevant to objectives 4 and 5)
5. Based on the answers to RQs 1, 2, 3 and 4, what context specific theory and practical model provided the most appropriate means of measuring the effectiveness and value of training within the research context? (relevant to objective 6)
6. To what extent did the answer to research question 5 provide a development of the existing training evaluation models, thereby contributing to new knowledge, company policy and practice in the context of the textile industry in Bangladesh? (relevant to objective 7)

### **1.9 Theoretical and practical contributions of the research**

As previously indicated, there was no academic literature that reflected the study, theory or practice of training or its evaluation in the context of Bangladesh or its textile industry. A small number of training related studies were found that focussed on non-textile sectors of the economy in Bangladesh or the textile industries in other developing countries in the region. These sources were integrated into the research as appropriate (chapter 5). The outcome from this research was the development of a context specific substantive theory that identified a framework for the appropriate evaluation of training within the textile industry in Bangladesh (section 5.2.5 and figure 5.1). The research therefore represented a major contribution to the creation of new knowledge within a previously ignored context. The theoretical contribution of this research was the introduction to the academic and practitioner communities of a new definition of training evaluation and its associated

processes (section 5.2.6 and its subsections). A new theory was developed that potentially offered an improved integration of theory and practice for effective training evaluation within the textile industry in Bangladesh.

The Straussian grounded theory (Strauss and Corbin, 1998) methodology adopted for this research and associated data analysis processes were also major contributions to new knowledge because they had not been used previously for research in either the topic, or the research context.

New concepts were introduced for the evaluation of training programme within the textile industry in Bangladesh. For example, employee commitment and employee creativity were not found in any of the existing training evaluation models, or training literature (section 5.2.2). Also, four processes for the assessment of training programme which were not found in existing training evaluation models were identified. They were productivity ratio, performance appraisal, monitoring and creativity workshop session (section 5.2.3).

The model developed through the research offered a new approach to the evaluation of training programmes based on the immediate outcomes, direct outcomes, behavioural outcomes and performance outcomes resulting from the training intervention. That reflected an approach not found in any existing training evaluation model. The emergence of a context specific model also identified intervening condition, namely contextual factors (individual differences, work climate and organisational culture) which influenced the training evaluation contexts and subsequently, the training evaluation processes (section 5.2.4 and subsection 5.2.5.1.2). These factors were also ignored in the existing training evaluation models. The revised model also introduced the training evaluation causal conditions of training needs assessment and training objectives validity, again factors that were ignored in the existing training evaluation models (section 4.4 and subsection 5.2.5.1.1). Another contribution of the research was the identification of a new definition of training evaluation.

The proposed theory and associated model provided companies and training providers in the textile industry in Bangladesh with a unique model designed to effectively provide managerial and employee benefits. Benefits that should ultimately contribute to commercial advantage. The new model offered practical and context appropriate guidelines for managers and training specialists on how to assess the most important effects and outcomes of training provision. The practical benefits would therefore allow managers to focus attention, time, effort and resources on the most important areas of training impact such as individual,

team performance and business performance, as well as identify improvements necessary to current training and the design of future training programmes.

Finally, this research provided a basis for future research to determine the relevance and appropriateness of the revised model in the textile industry, for other industries and other developing economies. It also identified several areas of future research into more specific aspects of training, its evaluation and the means of monitoring it. For example, the current research was exploratory and solely based on a management perspective; consequently, it would be useful to carry out further research (perhaps using different research approaches) that incorporated an employee perspective. The argument being that it is employees who undergo much of the training provided by organisations and it would be useful to obtain their perspective on the implications of the current research, perhaps leading to its refinement and development. Therefore, this research offered a significant contribution to existing theory, practice and the identification of future research opportunities.

### **1.10 Theory and model in grounded theory research**

Grounded theory represented an inductive, systematic methodology for the generation of theory through rigorous data analysis. It was an iterative research process leading to the development of conceptual categories which formed the basis for an emergent theory (Saldana, 2015; Charmaz, 2014). As a methodology, it enabled a theory to be developed which offered an explanation grounded in the views and experience of the management population within the research context (Saldana, 2015). For example, the concepts that emerged through the application of grounded theory analysis to the data in the current research offered a way to understand the research phenomenon (chapter 4). Consequently, training programme evaluation emerged as the core category and was the basis of the explanation of how respondent perspectives could be integrated into a broadly consensual approach to context specific training evaluation.

In practice, theory and model are related terms often used interchangeably in grounded theory research, but there are differences between them. A theory is a conceptualised framework that emerged from, and was a consequence of, an analysis (Corbin and Strauss, 2015). It was a generalised representation of a phenomenon which was widely accepted by the research community and supported by evidence obtained during research. However, a theory that emerged from such an analysis might be ultimately proved to be flawed or wrong, because human opinion and understanding can be wrong – for example, it was once accepted that the world was flat. A theory may be used as a mechanism to understand, explain or predict the behaviour of a concept (Lincoln et al., 2011). On the other hand, a

model was a symbolic, physical, or verbal representation of a concept which emerged from analysis in order to make understanding clear by avoiding unnecessary detail (Creswell, 2014). A model might be developed from a theory and might be used to simplify multiple or complex theoretical concepts. Specifically, a model contained only the important elements and relationships of the phenomena in question (Corbin and Strauss, 2015). For example, the concepts that emerged through data analysis in this research offered a way to understand the research phenomenon (chapter 4). Consequently, a new substantive theory of training programme evaluation was generated in chapter 5. The emergent model based on that theory offered a diagrammatic representation that incorporated the conceptual categories identified earlier in the research. The resulting model (figure 5.1) offered a clear representation of the phenomena of training programme evaluation.

### **1.11 Organisation of the thesis**

The thesis is divided into six chapters, described below.

Chapter one briefly outlined the underpinning for the research and the thesis structure. It began with an explanation of the background to the study. Then justified the research context, explained the motivation for undertaking the research and the aim, objectives and research questions. That was followed by the rationale for conducting a partial literature review at an early stage of the research. The research paradigm and philosophical assumptions and the justification for using grounded theory were also briefly presented, as was the theoretical and practical contributions of the study. The chapter concluded with a brief discussion of the distinction between theory and model in grounded theory research and an explanation of the thesis structure.

Chapter two explained the initial review of the literature which was undertaken to identify extant knowledge and any knowledge gaps. It was conducted prior to the field work and used to justify the research topic. A wide range of theoretical concepts were discussed in the initial review of the literature, including those relevant to an understanding of training, the evaluation of training, and available training evaluation models. The literature related to training in developing countries, the concept of different types of training, training transfer, the value of training and its evaluation for organisations were also discussed in the chapter.

Chapter three described and justified the research approach and research design adopted. The research philosophy, the philosophical assumptions and theoretical underpinning for the research was also explained. The constructivist epistemological position and the interpretive theoretical perspective adopted to guide the research were also outlined. The

research was guided by the grounded theory methodology which was explained and justified. Also provided was a detailed explanation of the data sources, data collection and data analysis methods adopted. The choice of data analysis method was guided by Straussian grounded theory, which along with the theoretical sampling, sample criterion and sample sizes was fully explained.

Chapter four presented the research findings that emerged from the data collected in order to be able to address the research questions. A range of categories were identified through the application of grounded theory data analysis processes. The integration of the categories and development of the core category, training programme evaluation were fully explained. They were subsequently used in chapter 5 to generate a new context specific substantive theory and model of training programme evaluation.

Chapter five discussed the comparative literature review and integrated the research findings with the emergent and initial literature sources. The emergent new substantive theory and associated model were developed and compared with existing literature. Justification for the development of a new substantive theory and the contribution of the research to new knowledge, theory and practice were also discussed in the chapter. It also justified the research as a comprehensive and innovative approach to the creation of new knowledge and a practitioner appropriate model.

Chapter six concluded the thesis with a presentation of the conclusions and recommendations from the research. This chapter also demonstrated the achievement of the research aim and objectives, along with the key findings of the research. It also presented an evaluation of the research. The strengths and limitations of grounded theory along with how they impacted on research validity, the avoidance of bias and the implications of the research for practice and future research were also discussed.

## **1.12 Summary**

This chapter outlined the background to, and motivation behind, the research from the development of the original research idea and plan through the pilot phase, to the development of a viable PhD research project. The aim of the research was to explore existing models for training programme evaluation and consequently, to generate a theory and model through grounded theory for use in the specific research context. The justification for using grounded theory was also addressed in this chapter as was the theoretical and philosophical positioning. This chapter also briefly illustrated the theoretical and practical contributions of the research. This chapter concluded with an outline of the structure of the thesis along with a very brief outline the content of each



chapter. The next chapter will review the relevant literature in order to articulate existing knowledge of training and training evaluation theory.

## **Chapter 2: Initial literature review of training and its evaluation**

### **2.1 Introduction**

Grounded theory research should begin with some prior literature knowledge according to Suddaby (2006). That was required for a determination of both the methodological approach and the epistemological stance to be adopted in the research (Stern, 1995). As grounded theory research, this study began with a limited initial literature review related to training and its evaluation. The initial literature review identified existing knowledge and research gaps relevant to the research and its context (based on Corbin and Strauss, 2015; Chiovitti and Piran, 2003; McCann and Clark, 2003). Plus, it provided the basis for the development of appropriate research questions (based on Corbin and Strauss, 2015; Layder, 2013; Strauss and Corbin, 1998). The literature reviewed in this chapter provided an initial understanding of training and training programmes, the organisational value of training, the concept of different types of training, its role, training transfer and the models used to evaluate it and its outcomes. The evaluation of training and training programme literature relating to Bangladesh and other developing countries in the region was also included in this review. The literature review also provided guidelines for the analysis contained in this chapter and chapters 4 and 5.

### **2.2 Training and training programmes**

In the literature, training generally referred to a learning and development experience which created significant and positive changes in the trainee and therefore achieved the desired objectives of the organisation (Karthik, 2012). It was therefore the structural and functional foundation for the development of employees and the foundation for guiding them through different job and organisational situations (Kooij et al., 2010). Training played an important role in enhancing the skills of a workforce and provided a significant basis for competitive advantage (Aragon et al., 2014; Kooij et al., 2010; Kraiger, 2003). Companies that organised training regularly and integrated it with the organisational culture tended to be more competitive (Porter, 1990). Garcia (2005) commented that training was an effective means by which employee productivity and performance was enhanced. It represented a holistic approach within human resource management (HRM) intended to develop employee capability and commitment, which resulted in employee retention, lower turnover, lower absenteeism, improved motivation and productivity (Kooij et al., 2010; Dessler and Varkkey, 2009; Jaw and Liu, 2004; Guest et al., 2003). Many researchers (for example, Bulut and Culha, 2010; Towler and Dipboye, 2009; Aamodt, 2007; Velada and Caetano, 2007; Stavrou et al., 2004; Cole, 2002) explained that training

was the continuous process of increasing the knowledge and skills of an individual to allow them to perform their duties effectively. Other research (for example, Halfmann, 2013; Obisi, 2011; Chih et al., 2008; Michel, 2001; Salas and Cannon-Bowers, 2001; Aswathappa, 2000; Buckley and Caple, 2000) suggested that attitudes should also be included in the definition. Consequently, they defined training as the systematic development of knowledge, skills and attitudes (KSAs) that collectively led to improved performance across a wide range of activities. Mullins (2010) simplified this line of thought when he argued that training was subject oriented learning in order to change individual behaviour and attitudes. Karthik (2012) concluded that training had several objectives that sought to enhance competency in, for example, technical, human, conceptual and managerial areas. Karthik suggested these were important for individual and organisational growth and that training objectives guided trainees as to what was expected from them as a result of the training received.

The literature above also suggested that because training was intended to create an efficient employee who was supportive of company objectives, a company should provide a broad range of training. For example, training focussed on soft skills development, interpersonal relationships, problem solving, quality improvement, time management, workplace safety, managerial training, employee efficiency, violence prevention, etc. Karthik (2012) built on that view and explained that because training should be a continuous process that involved a wide range of task and soft skills, it had the potential to make a significant contribution to the profitability of an organisation. Several writers (for example, Towler and Dipboye, 2009; Stavrou et al., 2004; Salas and Cannon-Bowers, 2001) suggested that training could be a source of competitive advantage if employees were provided with appropriate skills and encouragement to align their attitudes with those desired by the organisation. According to Kraiger (2003) and Salas and Cannon-Bowers (2001), profitable and successful organisations tended to spend more money on the provision of training than less successful companies. Many training programmes were criticised (for example, Halfmann, 2013; Kraiger et al., 2004; Salas and Cannon-Bowers, 2001) as faddish and/or expensive, therefore, largely irrelevant or unlikely to be cost effective. Consequently, although training had a potential to impact on many organisational variables, there was some doubt about the existence of a positive correlation between it and organisational performance (Towler and Dipboye, 2009; Kraiger, 2003; Wright and Geroy, 2001).

The literature reviewed above broadly suggested that training reflected the intent to enhance the KSAs of trainees. The literature also suggested that beyond the core purpose there were potentially positive and significant effects to be gained for both trainees and

organisations through the provision of training intended to enhance employee productivity, performance and commitment. However, it was also apparent that not all companies used training effectively to support their business objectives. Plus, not all training was appropriately targeted, well designed, or effectively presented for the desired outcomes to be achieved. The literature reviewed above clearly established the relationship between training, employee KSAs and work-related behaviour.

### **2.2.1 Different types of training**

The most popular training methods used by organisations were either on the job or off the job training (Morgan and Rochford, 2017; Dessler, 2006; Treven and Mulej, 2000). On the job training had a long history in training practice and was termed “sitting by Nellie” as a semi-derogatory way of indicating the lack of formal organisation in the process and the heavy reliance on existing employees to train new employees (Heery and Noon, 2008). It was a process common in low-skill factory type jobs, which could be quickly and easily learned. However, in the past three decades more formal approaches to on the job training emerged as an integral part of HRM practice. According to Rothwell and Kazanas (1994), it would be either structured or non-structured in its approach to the acquisition of the necessary KSAs for the achievement of effective job performance. Several writers (for example, Sahar and Ronald, 2017; Baum and Devine, 2007; Heras, 2006; Taylor and Davies, 2004; Kaynak, 2003) argued that on the job training was cost effective, saved time and provided a benefit to both trainees and the organisation. More formal approaches to on the job training were typically used for a range of situations including basic job instruction, coaching, mentoring, job rotation, apprenticeship and internship training. Heery and Noon (2008) pointed out that one of the earliest training methods to emerge many centuries ago was that of master craftsman and apprentice. The term of an apprenticeship traditionally lasted several years until the skill level of the master was acquired. However, the duration of apprenticeships had greatly reduced over recent years. According to Sleight (1993), such training should be carried out by an expert or supervisor who was specifically trained to provide it (very different to the traditional “sitting by Nellie” approach). Baum and Devine (2007) argued that job instruction which consisted of step by step training involved the trainer explaining to the trainee how to carry out a particular task, demonstrating it and then observing the trainee practicing what they had been taught. During many repetitions of explanation followed by practice, the trainer would correct mistakes made by the apprentice and encourage accuracy, performance and independence in the execution of the allotted tasks. Such approaches to training were widely adopted within the factory production system where short-cycle, simple and repetitive work was the norm and could

be quickly and cheaply learned. However, its role had significantly reduced over recent years as work became more complex (Sleight, 1993).

Coaching was a one-to-one approach to on the job training used where the trainee already possessed some level of knowledge and skills in a job which it was necessary to develop further. In coaching, trainers facilitated learning and guided the learner rather than instructed or trained them directly (Morgan and Rochford, 2017). Coaching helped to identify weaknesses in employee capability and tried to focus on helping the employee overcome them. Mentoring represented another form of on the job training, focused particularly on the development of behaviour and attitudes (Morgan and Rochford, 2017; Baum and Devine, 2007; Kraiger et al., 2004). As with coaching, it was also based on one-to-one interaction, usually by a person senior to the trainee, and was used mainly among managerial level employees, or those with an identified career progression potential.

Another type of on the job training was systematic job rotation, effectively a more complex form of job instruction discussed previously (Tarus, 2014). In job rotation, employees were systematically moved around different positions and even different departments for a pre-determined period (Tarus, 2014; Delpasand et al., 2010; Dessler and Varkkey, 2009). The committee assignment approach to on the job training had several different names but tended to be based around a group of trainees being required to solve a given problem (Kaynak, 2003). That approach involved group discussion and activities intended to develop effective teamwork along with other skills and knowledge during the process. Internship represented a fixed and limited period of work experience offered to potential employees to gain work experience, often without pay (Baum and Devine, 2007).

According to Rothwell and Kazanas (1994), off the job training offered training away from the job and workplace. It was designed to provide training in tasks common to the current and future work activities of attendees. It was typically carried out in a classroom or workshop and based on any combination of lectures, case studies, role play or simulation, demonstration followed by practice, conferences, discussions, seminar, or behavioural modelling. The main purpose of lecturers was to ensure that employees were well informed about their job roles and to encourage discussion of any queries. The case study method was typically used to learn and apply different problem solving skills to a given situation. In role play, a problem situation would be simulated by asking employees to assume particular roles and to act out their responses to the situation (Sahar and Ronald, 2017; Cornelius et al., 2011; Baum and Devine, 2007). Thus, allowing participants to practice and experience possible processes and outcomes in dealing with the given scenario.

The role play would usually be recorded, with trainees provided with the opportunity during subsequent discussion to review their performance and that of others (Cornelius et al., 2011). Demonstration and practice involved trainees being shown a series of tasks and then being required to practice them under the guidance of instructors. A workshop was usually a small group of people meeting over a short period of time to concentrate on specific areas of concern, it represented a highly interactive, experimental, problem solving way to develop and enhance skills (Baum and Devine, 2007). A conference tended to be a large event over a longer period of time and represented several people meeting to discuss a particular subject, with each participant contributing to the analysis and discussion of issues related to the topic.

### **2.2.2 The organisational value of training**

Literature identified that the organisational rationale for undertaking training was to ensure that employees were able to do their jobs easily and effectively, thereby contributing to the economic wellbeing of the organisation (Halfmann, 2013; Obisi, 2011; Chih et al., 2008; Salas and Cannon-Bowers, 2001). Kalaiselvan and Naachimuthu (2011) found that higher levels of expenditure on training produced positive business benefits, whilst lower levels produced little or no business benefit. It was clear from the literature that some training was mandatory, for example, health and safety and specific job requirements. However, most training was discretionary, meaning that organisations sought to add value though it (Halfmann, 2013; Salas et al., 2012; Stavrou et al., 2004). For example, the purpose of discretionary training was described by Kooij et al. (2010) as the achievement of increased productivity, improved job satisfaction and morale, reduced absenteeism and an increased level of commitment to the organisation and its goals. Organisations keen to improve their efficiency, productivity and profitability provided training intended to maximise employee potential, which resulted in them becoming important assets for the organisation (Garcia, 2005). Such training could also contribute to the achievement of competitive advantage through the employee acquisition of new KSAs along with the encouragement to actively support management objectives (Towler and Dipboye, 2009). Such benefits provided strong encouragement for an organisation to invest in training to be able to differentiate itself by more effectively meeting current and future customer needs and thereby enhancing organisational sustainability (Bulut and Culha, 2010; Stavrou et al., 2004; Tan et al., 2003). This view was supported by Stavrou et al. (2004) and Salas and Cannon-Bowers (2001) who pointed out that to achieve success, organisations required a considerable investment in human capital. At a management level, organisations sought to add value through training in order to enhance the efficiency of management, improve problem solving

and strengthen leadership (Halfmann, 2013).

Training also represented a significant capital investment for companies facing market or technological threats, demands or change; or to facilitate change of a more general nature (Bulut and Culha, 2010; Jaw and Liu, 2004; Tan et al., 2003). Also, employees expected training to be provided by their employers in order to improve their skills, career development and prospects (Grohmann and Kauffeld, 2013). Halfmann (2013) and Kooij et al. (2010) pointed out that employees increasingly expected to balance work and personal life more effectively than in the past and argued that doing so led to the reduction of stress. They then argued that training had a part to play in the achievement of work life balance and stress reduction. Training also had the potential to enhance the quality of the working lives of employees, which in turn could help maximise employee competence and align employee behaviour and attitudes with organisational objectives (Grohmann and Kauffeld, 2013; Halfmann, 2013; Obisi, 2011; Mullins, 2010).

Therefore, the literature review clearly established the importance of training in relation to the relationship between the level of investment and the level of benefit achieved (Bulut and Culha, 2010). However, training cannot fully achieve the benefits potentially available unless the impact of it on employee behaviour and organisational functioning can be easily and effectively assessed (Halfmann, 2013; Kooij et al., 2010; Kraiger et al., 2004).

### **2.3 Training evaluation and its justification as the research focus**

Eseryl (2002) suggested that training evaluation represented the systematic collection of information to determine the relevance, effectiveness, impact and value of training relevant to the objectives set for it, particularly related to improved job performance. Combs and Falletta (2000) suggested that the determination of training needs and performance improvement at the business level should be included in training evaluation. Aziz and Ahmed (2011) and James and Roffe (2000) explained that it was the process of comparing the actual experience of, and outcomes from, training with what was expected or intended. They also suggested that training evaluation had a role in decision making about future training design and provision. Colombo and Stanca (2014) suggested that the determination of training needs and requirement for performance improvement at the business level should both be included in training evaluation. Burkett (2005) suggested that training should be evaluated to facilitate decisions about the value that it delivered to the organisation. Aziz and Ahmed (2011) and Dawson (1995) suggested that training evaluation should involve the systematic and impartial collection of data devoid of subjective opinion. That would enable the evaluator to draw meaningful conclusions regarding the success of

training in terms of the achievement of organisational objectives and the degree to which the implementation and promotion of learning policy was followed (Dawson, 1995). His views represented a useful addition to the explanations offered above and were supported by the work Russ-Eft and Preskill (2009).

According to Russ-Eft and Preskill (2008) and Mann (1996), training programmes frequently underwent business case evaluation prior to adoption. The purpose being to identify the employee numbers and groups that would most benefit from the proposed training and the likely return on the investment. Simpson (2002) argued that the business case evaluation of training prior to implementation should also allow the identification of the alternative training methods available and a justification for the choices made. Consequently, there were two types of training evaluation evident in the literature. One was the business case evaluation of a new programme and the other was the review of training activity once it had been delivered. Both served very different purposes and it was the second purpose that was the focus of this research. The literature reviewed earlier established the importance of training in relation to the levels of investment involved and the potential returns and benefits sought. However, Halfmann (2013) and Kooij et al. (2010) pointed out that training could not meet these expectations unless the impact and effects of it on employee behaviour and performance could be effectively measured. Used for this second purpose, training evaluation models needed to be grounded in an underlying theory and offer appropriate methods for the measurement of outcomes and achievements from the training delivered. According to Massey (2004), the information gained through evaluation could be used to justify the continuation of such training (or its improvement), an assessment of the value and contribution of the training department or as part of the assessment process for further investment in training activities. Colombo and Stanca (2014) described such evaluation as the key to the subsequent development of training provision requirements. It was also argued by Schmidt (2009) that the evaluation process could be used to review diversity related issues in organisations. It was for the reasons outlined above that the current research focussed on training evaluation following the delivery of training as a necessary pre-requisite to seeking to justify future training options.

#### **2.4 Existing models for the evaluation of training programmes**

A number of models have been developed to evaluate training. For example, Kirkpatrick's 1959, 1976, 1994 (revised by Kirkpatrick and Kirkpatrick, 2006) 4 level approach to the evaluation of training programmes and the 5 level models of Hamblin, 1974; Kaufman, 1995; Philips, 1997; 2003; 2011 (revised by Philips and Philips 2016); Guskey, 2000 (revised in 2002, 2012 and 2017); Richard, 2011. Table 2.1 presents the major training



evaluation models in a way that allowed comparison between the levels of evaluation offered by them. Each of the models in that table will be discussed and critically evaluated below.

**Kirkpatrick's training evaluation model (1959, 1976, 1994; revised by Kirkpatrick and Kirkpatrick, 2006)**

In a series of articles in the Journal of the American Society of Training Directors, Kirkpatrick (1959) suggested that training programmes could be evaluated at 4 distinct levels, level 1 - reaction, level 2 - learning, level 3 - behaviour and level 4 - results. The original framework remained relatively unchanged in the subsequent reviews of 1976 and 1994 and that of Kirkpatrick and Kirkpatrick (2006). The model continues to be widely used for assessing training effectiveness (for example, Paull, 2016; Steele et al., 2016; Salas and Cannon-Bowers, 2001). The basics from Kirkpatrick's 4 levels of training evaluation were also found in the later evaluation models (as explained by Paull, 2016; Philips and Philips, 2016; Blau et al., 2012; Laing and Andrews, 2011). Kirkpatrick (1976) demonstrated a causal relationship between the variables used in the original model and suggested that the higher-level training outcomes (levels 3 and 4) depended on the lower-level training outcomes (levels 1 and 2) being achieved. Therefore, a positive reaction to training was needed if it was to add to trainee KSAs, also making it more likely that they would be applied in subsequent work activities. Conversely, if trainee reaction was negative, it would adversely impact on the higher-level outcomes (Kirkpatrick and Kirkpatrick, 2006). The four levels in Kirkpatrick's (1959) model indicated in table 2.1 were:

**Level 1 - Reaction:** This level measured what participants thought and felt about the training programme as it was experienced. According to Kirkpatrick (1994), reactions provided insights into the aspects of the training that trainees found interesting and useful and identified aspects that needed to be changed. Moreover, Kirkpatrick argued that if trainees did not respond positively to the training as experienced, they were unlikely to actively participate in the learning process. The feedback obtained at level 1 could therefore be used to improve the design and delivery of future training. Usually such feedback would be collected by the training provider at the conclusion of the training, usually through the trainee completing a form.

**Level 2 - Learning:** This level measured the degree to which participants learned what it was intended that they would learn (the acquisition of new KSAs) as a result of the training experienced, Kirkpatrick (1994). The identification of what had been learned (compared to that expected) would help the design and planning of future training. Kirkpatrick proposed that learning could be assessed through the pre- and post-testing of trainees.

**Level 3 - Behaviour:** This level reflected the extent to which it changed the subsequent work behaviour of trainees as they applied the learning acquired from the training, Kirkpatrick (1994). Kirkpatrick proposed that the degree of behaviour change could be assessed by a supervisor or manager through observation both before and after training.

**Level 4 - Results:** This level assessed the effects on the business following a training programme. This could take the form of improvements in productivity, quality, efficiency, sales volume, and the identification of any reduced costs or increased profit (Kirkpatrick and Kirkpatrick, 2006).

#### **Hamblin's five levels of evaluation (1974)**

Hamblin (1974) modified Kirkpatrick's model by suggesting that evaluation represented a systematic and continuous process to assess the effectiveness and value of training by collecting information, then evaluating and validating it using evidence rather than opinion. According to Tamkin et al. (2002) and Holton (1996), Hamblin's five level model was very similar to Kirkpatrick's, with the first three levels being identical. However, Hamblin (1974) split the fourth level of Kirkpatrick's model into two. Hamblin termed them organisation and ultimate value (Tamkin et al., 2002). As with Kirkpatrick, Hamblin believed that all levels in his model had a degree of cause and effect in the relationships between them. Consequently, trainee reactions in his model resulted in changes in work behaviour which in turn led to change in organisation functioning which ultimately contributed to the value generated (Holton, 1996). Hamblin's five levels are as follows (see also table 2.1):

**Level 1 - Reaction:** This level identified participant reactions to the training as experienced. According to Hamblin (1974), participant reactions should be sought about training design, training content, training delivery and the resources provided to facilitate the training. The results of which would identify which elements in the process trainees found useful and identify any areas for improvement or change in the future design and delivery of the training. This level was the same as Kirkpatrick's level 1 - trainee reaction.

**Level 2 - Learning:** This level evaluated what participants learned through the training provided in terms of the KSAs acquired (Hamblin, 1974). Hamblin explained that reactions at level 1 determined to a significant degree the learning achieved at level 2. A positive trainee reaction would lead to positive KSAs achievements and vice-versa. The arguments being the same as used in Kirkpatrick's level 2 - learning.

**Level 3 - Job Behaviour:** This level measured the degree to which actual job behaviour

changed following attendance at the training provided. Hamblin (1974) suggested that training could be regarded as successful if the desired behaviour changes were achieved. Behaviour could be assessed through observation by a supervisor or manager. This was therefore the same as Kirkpatrick's level 3 - behaviour.

**Level 4 - Organisation:** This level sought to assess the effects on the organisation of the training provided. It only represented part of the assessment covered by level 4 in the Kirkpatrick model. This level in the Hamblin model measured two distinct areas of effect. Firstly, the effects of training at the departmental level and secondly, the effects on the entire organisation.

**Level 5 - Ultimate value:** This level measured the degree to which the training affected the ultimate economic value of the organisation (Hamblin, 1974). Hamblin explained that although the effectiveness of training could be measured in terms of the effect on a trainee's personal goals including enhanced financial reward, job opportunities (both of which created and growth in self-esteem); these did not automatically lead to commercial benefits for the organisation. Consequently, in the Hamblin model, evaluation at level 5, sought to address factors related to commercial success. Kirkpatrick's level 4 - results was therefore similar to the ultimate value in the Hamblin model.

#### **Kaufman's training evaluation model (1995)**

According to Kaufman (1995), evaluation was a disciplined inquiry to assess input and process to understand the success of training and whether increased organisational performance and societal contribution resulted. Kaufman added a fifth level to the original Kirkpatrick model, which he called societal contribution, (Tamkin et al., 2002). As with the Kirkpatrick and Hamblin models, this model was designed to evaluate training programmes from both trainee and organisational perspectives, but additionally it sought to assess the impact of training on society (Kaufman, 1995). Each of these levels is described below (see also table 2.1):

**Level 1 - Resources and processes:** According to Kaufman (1995), this level comprised two sub-levels, 1a and 1b. Level 1a focused on the input factors of the availability and quality of materials provided to support the learning activity. Level 1b considered the processes included in the training activity, their quality and the degree to which they contributed to the outcomes desired. Level 1b also sought to assess the level of trainee satisfaction with the training programme. Kaufman stated that level 1 focused not only on learner satisfaction but also on the organisational inputs that impacted on learner achievement and satisfaction. Consequently, this level was differentiated somewhat from

the level 1 focus in the Kirkpatrick and Hamblin models.

**Level 2 - Acquisition:** This level focused on individual and small group results, what Kaufman termed the micro benefits (Kaufman, 1995). Benefits that reflected the extent to which the training objectives and desired outcomes were actually met. This level was similar to both Kirkpatrick's and Hamblin's level 2 - learning.

**Level 3 - Application:** According to Kaufman, this was another aspect of micro analysis which examined the degree that newly acquired KSAs were applied at work at the individual and small group levels. This level in the Kaufman model was similar to Kirkpatrick's level 3 - behaviour and Hamblin's level 3 - job behaviour.

**Level 4 - Organisational payoffs:** According to Kaufman, this level was intended to evaluate the organisational consequences of the training provided. Success at this level would be assessed in terms of overall organisation performance and increased return on investment. Here, the macro benefits achieved through training was assessed and was analogous to Kirkpatrick's level 4 - results, along with elements of Hamblin's level 4 - organisation and level 5 - ultimate value.

**Level 5 - Societal contributions:** Kaufman stated that this level represented the mega analysis of the results expected from successful training. It was intended to achieve that by seeking to measure the degree that the organisation benefited society. This level was not included in either the Kirkpatrick or Hamblin models, which differentiated it from them.

#### **Philips five levels of evaluation (1997, 2003, 2011 and Philips and Philips, 2016)**

Philips (1997) adapted Kirkpatrick's framework by adding return on investment (ROI) as a fifth level, arguing that it offered the most valuable information on training impact. Philips offered guidance on calculating the ROI for training and performance improvement programmes. Phillips recognised the difficulties in isolating the effects of training on ROI because there were many other factors that impacted on it. Philips and Philips (2016) updated and extended his original work to include additional research and the development of a results-based approach to HRD. His revised approach incorporated the evaluation of training design, methods of data collection and the measurement of success in the calculation of programme costs and the ROI. It also suggested how management support for HRD programmes could be increased. Philips suggested that the fourth level (results) in the Kirkpatrick model could incorporate the concept of ROI by assessing the impact of training in monetary terms and comparing that to the total cost of providing it.

Philips (1997) argued that it was important to monitor (through training evaluation) the training function, its activities as well as assess the organisational, social and financial costs and benefits of the training undertaken. Philips and Philips (2016) suggested that training created a chain of impact beginning with trainee reactions to, and satisfaction with, the training; followed by the KSAs acquired and their application to job behaviour; which led to a positive impact on the business and finally, improvement in ROI. Philips also stated that if training evaluation was not done at each level, it would be difficult to determine the effects at the higher levels of business impact and ROI. The five levels in this model are explained below (see also table 2.1):

**Level 1 - Reaction and Satisfaction:** Philips (2011) recommended that trainee reaction to, and satisfaction with, the training programme and activities could be used to determine future training plans and design. Philips also suggested that a questionnaire or similar approach could be used to assess training at this level. Like Kirkpatrick, Philips and Philips (2016) argued that positive trainee reactions at level 1 did not guarantee that new skills or knowledge had been learned, or that if learned they would be applied in normal work activities.

**Level 2 - Learning:** Evaluation at this level measured the KSAs gained through the training as experienced. This was necessary to assess the degree to which trainees absorbed the material provided and learned how to use it. However, a positive assessment at level 2 did not automatically mean that trainees applied what they had learned once they were back at work (Philips and Philips, 2016). This level was similar to the Kirkpatrick, Hamblin, Kaufman and Guskey level 2 - learning (acquisition for Kaufman). According to Philips (2011), this was another aspect of micro analysis and examined the degree to which newly acquired KSAs were applied back at work at both the individual and small group levels.

**Level 3 - Application and Implementation:** This level measured the extent to which newly acquired KSAs were applied back at work and that other desired behaviour changes became evident. However, Philips and Philips (2016) argued that even when trainees applied what they had learned back at work that did not automatically translate into positive business results. That was because many other factors also impacted on organisational performance. This level was similar to Kirkpatrick's level 3 - behaviour, Hamblin's level 3 - job behaviour, and Kaufman's level 3 - application.

**Level 4 - Business impact:** This level measured the impact of training on the business through the assessment of factors including output, quality, order lead-times, manufacturing

times, costs and customer satisfaction (Phillips, 2011). This level contained similarities with Kirkpatrick's level 4 - results, Hamblin's level 4 - organisation and Kaufman's level 4 – organisational payoff.

**Level 5 - Return on investment:** This level measured the financial benefits achieved by the organisation as a result of training compared with training programme costs. Phillips and Phillips (2016) pointed out that the (ROI) should be considered as the final level of evaluation as it compared the financial benefits that resulted from the training with the total cost of providing it. ROI was expressed as a cost/benefit ratio. Phillips argued that using the ROI would enable decision makers to compare the ultimate value of training investment with other potential investment opportunities. This level of evaluation was more specific (in that Phillips prescribed how it should be measured) than the top level in any of the other models discussed.

### **Guskey's professional development model (2000, 2002, 2012 and 2017)**

Guskey (2000) proposed a model specifically for the evaluation of professional learning courses provided by colleges and professional associations and which consisted of five levels. It was included here for the sake of potential relevance to the current research and completeness. Guskey revised and updated his work to include additional research, expanded coverage, and new examples. Guskey (2002) said that the model represented an adaptation of Kirkpatrick (1959) but specifically intended to analyse the value of training programmes in professional development. According to Guskey (2012), the five levels were hierarchically structured and ranged from simple measures at the lower levels to more complex at the higher ones. Each succeeding level required additional time and resource for data collection and analysis. Guskey's five levels are explained below (see also table 2.1):

**Level 1 - Participant reaction:** This level determined reactions to the professional learning experience in relation to the perceived needs of students for continuing employment and career advancement (Guskey, 2012). He argued that this was the most common form of professional learning evaluation undertaken and was the easiest data to gather and analyse. The information used in this assessment would usually be collected through a questionnaire (Guskey, 2017). The questions focussed on whether participants liked and valued the experience. This level was similar to the Kirkpatrick, Hamblin and Phillips level 1 - reaction, but with a focus appropriate to the specific context. It is slightly different to the Kaufman level 1 - resources and processes because it did not adopt the two sub-levels from that model.

**Level 2 - Learning:** This level focussed on measuring the acquired KSAs of participants, plus their disposition to apply what was learned (Guskey, 2012). The techniques used at this level included testing what was learned, simulation or skill demonstration, oral or written personal reflection, or participant portfolios (Guskey, 2017). This level of evaluation would be carried out after the completion of a professional learning programme. Analysing the data collected was intended to provide a basis for improving the programme in terms of the content, along with its format, design and structure. If participants already possessed some of the KSAs covered by the programme, then some form of pre- and post-programme assessment would be required to judge the impact of the training provided (Guskey, 2012). In general terms, this level was similar to the Kirkpatrick, Hamblin, Kaufman and Phillips level 2 - learning (acquisition for Kaufman), but focussed on the specific training context.

**Level 3 - Organisation support and change:** This level required the level of organisational support provided for the successful application of the outcomes from the professional learning experience to be assessed. However, Guskey (2017) pointed out that the lack of positive results did not automatically reflect poor training, because organisational policies, politics, lack of support for training, poor accommodation or facilities provided for the training could also impact on the implementation of training outcomes. These factors were also reflected the earlier work of Holton (1996). Level 3 - organisational support and change was not included in the Kirkpatrick, Hamblin, Kaufman or Philips models because they did not the specifically apply to the professional development context.

**Level 4 - Participant use of new knowledge and skills:** This level determined the degree to which participants applied the KSAs acquired to their work. This level could not be assessed immediately after the completion of the learning event, as time was needed for participants to adopt in their work the ideas and practices acquired (Guskey, 2017). Therefore, measurement needed to be undertaken at different points in time to assess if and how learning was applied across time. This level was similar to the Kirkpatrick, Hamblin and Kaufman level 3, (behaviour for Kirkpatrick, job behaviour for Hamblin and application for Kaufman), but focussed on the specific training context.

**Level 5 - Learning outcomes:** This level of evaluation assessed the degree to which the objectives set for improvement in academic knowledge, behaviour or other relevant areas occurred. Level 4, participant use of new knowledge and skills, assessed the extent to which participants applied the acquired KSAs in the short to medium term. Whereas, level 5-learning outcomes, measured the extent to which the acquired KSAs impacted on professional development in the longer term. Guskey suggested that the key assessment

techniques would be test results and structured interviews. Level 5 addressed the ultimate purpose of professional education that sought to establish the benefit for participants and their employers over time (Guskey, 2017). This level of analysis was not included in any of the other models.

### **Richard's five levels evaluation framework (2011)**

Richard (2011) presented his model as a connected levels framework and argued that it provided a scientifically robust but simple framework for practitioners to use for evaluating workplace learning. In common with a number of the other models introduced above, he proposed five evaluation levels, outlined below (see also table 2.1):

**Level 1 - A pre-learning stage:** This level measured individual trainee characteristics along with the organisational, socio-political and economic factors active in the organisational context. He argued that it was important to understand these issues before designing and providing a training programme. To do so allowed the design and delivery to be aligned with contextual requirements. Richard (2011) suggested that data should be sought about individual employee characteristics such as position in the organisation, their motivation to learn and personal abilities and also organisational characteristics such as job design, industrial relations climate and human resource strategies. In addition, information should be collected on any wider social, political and economic factors such as government training policy that might impact on future training plans. This level was absent from all the models introduced earlier.

**Level 2 - The trigger (need) for learning:** The need for learning shaped the aim, objectives and design of training according to Richard (2011). He argued that ensuring training design was relevant to the needs of the organisation improved the effectiveness of the delivered training programme. This level had a more specific focus than his level 1 and was absent from all of the models introduced earlier.

**Level 3 - The learning event:** This level included the assessment of the elements within the learning event. For example, the programme aim, the design of the event, the appropriateness of the content to the aims, the delivery methods and style, the assessment processes, the location of the training and the facilities provided. This level was similar to Kirkpatrick's and Hamblin's level 1 - reaction, Kaufman's level 1 - resources and processes, Guskey's level 1 - participant reactions and parts of Phillips level 1 - reaction and satisfaction.

**Level 4 - The application of learning:** This level reflected the extent to which the acquired KSAs were applied in the work setting (Richard, 2011). This level was similar to elements



from the Kirkpatrick level 3 - behaviour, Hamblin level 3 - job behaviour, Kaufman level 3 - application, Guskey level 4 - participant use of new knowledge and skills and Phillips level 3 - application and implementation.

**Level 5 - The impact of learning:** This level assessed the degree to which the aim of the training was achieved. For example, assessment of the degree to which individual and team KSAs changed and performance at the individual, group, department and organisational levels improved (Richard, 2011). This level was similar to elements from the Kirkpatrick level 4 - results, Hamblin level 4 - organisation, Kaufman level 4 - organisational payoffs and Phillips level 4 - business impact. This level was not included in Guskey's model.

Table 2.1: Existing models for the evaluation of a training programme

Kirkpatrick 1959	Hamblin 1974	Kaufman 1995	Philips 1997	Guskey 2000	Richard 2011
					<b>Level 1</b> Pre-learning stage
					<b>Level 2</b> The trigger for learning
<b>Level 1</b> Reaction	<b>Level 1</b> Reaction	<b>Level 1</b> Resource and process level	<b>Level 1</b> Reaction and satisfaction	<b>Level 1</b> Reaction	<b>Level 3</b> The learning event
<b>Level 2</b> Learning	<b>Level 2</b> Learning	<b>Level 2</b> Acquisition	<b>Level 2</b> Learning	<b>Level 2</b> Learning	
				<b>Level 3</b> Organisation support and change	
<b>Level 3</b> Behaviour	<b>Level 3</b> Job behaviour	<b>Level 3</b> Application	<b>Level 3</b> Application and implementation	<b>Level 4</b> Participant use of new knowledge and skills	<b>Level 4</b> Application of learning
<b>Level 4</b> Results	<b>Level 4</b> Organisation	<b>Level 4</b> Organisational pay off	<b>Level 4</b> Business impact		<b>Level 5</b> The impact of learning
	<b>Level 5</b> Ultimate value				
		<b>Level 5</b> Societal contribution			
			<b>Level 5</b> ROI		
				<b>Level 5</b> Learning outcome	

### 2.4.1 Summary

Several of the training evaluation models introduced above acknowledged that they had modified Kirkpatrick's model, or that their models were very similar to (or based on) Kirkpatrick's original work. This section contributed to an understanding of how knowledge, research, and practice relating to training evaluation evolved over time. The similarities and

differences between models are summarised in table 2.1.

The dates indicated in the above table are the original publication dates for each of the models included. The dates of subsequent revisions and updates are not shown, but are discussed at appropriate points in the relevant sections of the chapter. The training evaluation models reviewed established current knowledge about how the effectiveness and/or value of training should be established as relevant to this research. That was a necessary first step in the research and provided an indication of what informed company practice. In the following section, the literature from a different perspective on training effectiveness will be reviewed before a critical review of all the models introduced will be presented to identify problems and gaps in the current literature.

## **2.5 Training transfer**

Training transfer focussed on what was necessary for training to successfully impact on the current and future work activities of employees (Segers and Gegenfurtner, 2013). It was based on the view that what happened during a training event was less important than what happened subsequently in making use of the acquired KSAs. This topic appeared regularly in the training literature (for example, Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Aguinis and Kraiger, 2009; Baldwin et al., 2009; Kozlowski and Bell, 2008; Burke and Hutchins, 2007; Salas and Cannon-Bowers, 2001; Baldwin and Ford, 1988). A number of writers attempted to summarise the meaning and processes involved in training transfer (for example, Baldwin et al., 2009; Cheng and Hampson, 2008; Burke and Hutchins, 2007; Alvarez et al., 2004; Yamnill and McLean, 2001). That work typically focused on trainee and work environment characteristics and their impact on the degree to which training was transferred to work activity and impacted on organisational functioning.

According to Blume et al. (2010), transfer of training referred to the extent to which the KSAs acquired resulted in sustained change in the way that work was performed. In other words, the successful transfer of training to the work setting was as important as what was learned during training. Blume et al. (2010) argued that successful training transfer involved in two main processes:

- (a) Generalisation: The extent to which KSAs acquired during training were applied to different settings, people and situations.
- (b) Maintenance: The extent to which changes that resulted from a learning experience persisted over time.

Several writers studied both processes across a variety of research settings (laboratory, simulations, field studies and field experiments) and across different time intervals. They

identified factors that affected transfer regardless of research setting and time interval. As a result, it was possible to understand training transfer as a dynamic and complex process (Blume et al., 2010; Salas and Kozlowski, 2010; Ford and Kraiger, 1995; Baldwin and Ford, 1988). Training transfer was therefore viewed as important leverage through which development activities impacted on relevant outcomes (Blume et al., 2010).

Although training was primarily focused on learning outcomes, a key indicator of its effectiveness was the extent to which KSAs were used during work and resulted in meaningful changes in job performance (Grossman and Salas, 2011; Blume et al., 2010; Salas and Kozlowski, 2010). According to Blume et al. (2010), the extent to which learning was transferred to work, along with the identification of what caused training to fail to be transferred, were the key factors to evaluate. The Baldwin and Ford (1988) model of training transfer was the earliest, simplest and most influential conceptual framework and served as a useful guide for subsequent research (Blume et al., 2010). The Baldwin and Ford (1988) model of training transfer incorporated three main elements:

- (a) Training inputs, including trainee characteristics, training design and work environment.
- (b) Training outputs, including the degree to which learning occurred during training and the retention of that material after the programme was ended.
- (c) Conditions of transfer, this assessed the application of the knowledge and skills acquired to the job context, and the maintenance of that learning over time.

Baldwin and Ford's model spawned much research (Blume et al., 2010 for a comprehensive review). The goal of Baldwin and Ford (1988, p.64) was to "provide a critique of the existing transfer research and to suggest directions for future research." They analysed 63 studies spanning 1907 to 1987 and summarised the key findings related to the linkage between training input factors and subsequent transfer to the work setting. Since their review, the transfer literature had expanded to address many of the issues raised by them (Ford and Weissbein, 1997). The general consensus being that a wide range of individual differences and characteristics, along with factors in the work environment, had the potential to impact on training transfer outcomes (Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Ford et al., 1992). The most critical components of the work environment identified through that research included transfer climate, support for trainees, opportunity to apply the KSAs acquired and trainer follow-up (Salas et al., 2006).

Expanding Baldwin and Ford's approach, Broad and Newstrom (1992) argued that (a) the role of key stakeholders and (b) time to implement training transfer should also be considered. Key stakeholders included executives, supervisors, performers, performance

consultants, evaluators, performance partners, co-workers, subject-matter experts, etc. (Broad, 2005). Three key time periods were identified: pre-training, training, and post-training. By incorporating time and stakeholder elements, Broad and Newstrom laid the foundation for more focussed models of training transfer. For example, a focus on the individual in training transfer (Russ-Eft, 2002) produced a typology that focused on situational elements that directly affected the trainee, rather than the trainee's dispositional and personality characteristics. Kontoghiorghes (2004) argued that traditional models were overly simplistic and ignored the extent to which transfer processes were embedded in, and dependent on, the organisational context. He advocated a more systematic approach, asserting that organisational factors that directly or indirectly influenced performance, and therefore, a trainee's belief about the degree to which training would result in enhanced performance, had not been given insufficient attention by researchers in training transfer research.

A meta-analysis was carried out by Blume et al. (2010), which updated the earlier Baldwin and Ford (1988) analysis. They identified 89 studies and produced a comprehensive and rigorous summation of the predictor variables linked to training transfer outcomes and effectiveness. Tannenbaum et al. (2012) also systematically assessed the evidence for the validity of the predictors of transfer effectiveness and confirmed the Blume et al. conclusions. A brief summary of the key findings from the Blume et al. (2010) meta-analysis is presented below.

**Learning experience:** Blume et al. (2010) did not focus directly on whether the design of training (e.g. content, pedagogy) predicted transfer. Instead, they examined the following outcomes of training: (1) learning outcomes: level of post training knowledge achieved by trainees and self-efficacy were found to have a moderate association with subsequent transfer; (2) trainee reaction: affective reactions to the training were found to have a moderate influence on transfer outcomes; and (3) learning objectives: the pattern in the results suggested that the relationship between predictors and training transfer were stronger when the content of the training focused on open rather than closed skills. Tannenbaum et al. (2012) noted that closed skills required trainees to respond in a specific way according to a set of rules implemented in a precise fashion. With open skills, there was no single correct way to act, but rather freedom for the employee to perform in a variety of ways to achieve the end result (Blume et al., 2010).

**Training intervention:** Their meta-analysis also examined the effects of previous interventions designed to enhance future transfer. The interventions examined were

optimistic previews, goal setting and relapse prevention. The impact of such interventions on transfer outcomes was found to be negligible.

**Work environment.** They found that the work environment had the potential to impact on training transfer (Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Burke and Hutchins, 2007). Factors in the work environment found to be strong predictors of the successful transfer of training included transfer climate and support provided to trainees in applying what they had acquired (Blume et al., 2010). When trainees perceived a positive transfer climate, they tended to apply learned competencies more readily to their work (Blume et al., 2010; Roberson et al., 2009; Burke and Hutchins, 2007; Salas et al., 2006; Colquitt et al., 2000; Rouiller and Goldstein, 1993). Support from supervisors and peers had a strong, significant effect on whether or not trainees used their newly acquired KSAs (Grossman and Salas, 2011) and was found to be one of the most salient aspects of the work environment related to transfer (Blume et al., 2010; Roberson et al., 2009; Burke and Hutchins, 2007; Hawley and Barnard, 2005; Cromwell and Kolb, 2004).

**Trainee characteristics:** Blume et al. (2010) identified that individual differences and characteristics including self-efficacy and motivation to learn impacted on the effectiveness of training transfer. Blume et al. (2010) found that the trainee characteristics of cognitive ability, conscientiousness, and voluntary participation had the strongest positive relationship with training transfer effectiveness. While neuroticism, pre-training and post training self-efficacy, motivation to learn and a learning goal orientation had small to moderate relationships with transfer effectiveness.

These findings confirm the salience of the three categories of work environment, trainee characteristics and training design originally identified by Baldwin and Ford (1988) as predictors of training transfer effectiveness. A review by Grossman and Salas (2011) reviewed the impact of the predictive factors on the successful transfer of training to different tasks and contexts and confirmed the conclusions of Blume et al. (2010). The training transfer material discussed above was integrated into the following critical review of training evaluation models as appropriate.

## **2.6 Critical review of existing models for the evaluation of training**

Many scholars (for example, Khalid et al., 2012; Anderson, 2009; Kraiger et al., 2004; Kraiger, 2003; Alliger et al., 1997; Shelton and Alliger, 1993; Alliger and Janak, 1989) criticised existing training evaluation theory and models. For example, Aguinis and Kraiger (2009) argued that the hegemony approaches to the models of training evaluation were not scientifically based. By that they meant that each of the models of training

evaluation was based on the assumptions underpinning them. Essentially, each level in the models was organised in an ascending order which implied that the levels were positively correlated, rather than assessing independent factors.

Kirkpatrick's four level model remains the most widely used and is frequently referred to in the HRD literature (for example, Steele et al., 2016; Chang and Chen, 2014; Blau et al., 2012; Khalid et al., 2011; Aguinis and Kraiger, 2009; RussEft and Preskill, 2009; Kirkpatrick and Kirkpatrick, 2006; Kraiger et al., 2004; Phillips, 2003; Tamkin et al., 2002; Holton, 1996; Shelton and Alliger, 1993; Alliger and Janak, 1989). His model has been extensively criticised (for example, Aguinis and Kraiger, 2009; Kraiger et al., 2004; Phillips, 2003; Holton, 1996; Alliger and Janak, 1989). For example, studies that sought to replicate Kirkpatrick's model produced results that were not uniform, or standardised, therefore making it impossible to validate the model (Chang and Chen, 2014; Wertz, 2005; Lockwood, 2001; Tidler, 1999). Several writers (for example, Paull, 2016; Steele et al., 2016; Chang and Chen, 2014; Kahlid et al., 2012; Anderson, 2009; Aguinis and Kraiger, 2009; Kirkpatrick and Kirkpatrick, 2006; Kraiger et al., 2004; Kraiger, 2003; Alliger et al., 1997) found that most training evaluation within organisations focussed primarily on levels 1 and 2 in Kirkpatrick's model, with little emphasis on evaluation at levels 3 and 4. That was partly due to the difficulty in assessing the impact of training on organisational performance at levels 3 and 4 (for example, Cheng and Hampson, 2008). According to Kirkpatrick (1994), trainee reactions at the first level simply reflected the degree to which they were satisfied with the training programme as experienced. However, measuring training immediately after it finished missed information that only became apparent after a period of time (Short, 2009; Mann, 1996). The implication being that for training to impact on employee behaviour, time and opportunity was necessary to apply and practise what had been learned (Paull, 2016; Chang and Chen, 2014; Karthik, 2012; Bates and Davis, 2010). According to Gegenfurtner et al. (2009) and Ramlall (2003), because training sought to influence participant learning, behaviour and/or attitudes, training outcomes should be measured against these in subsequent work activity. The extent to which KSAs acquired through training resulted in sustained change in the way that work was performed was the focus of the training transfer literature reviewed above and particularly that of Blume et al. (2010) and Baldwin et al. (2009). Several writers (for example, Grossman and Salas, 2011; Blume et al., 2010; Baldwin et al., 2009) suggested that trainee satisfaction with the training as experienced had a moderate association with subsequent training transfer outcomes.

Kirkpatrick (1959) argued that successful training produced changes in individual, group, departmental and organisational performance. A claim supported by more recent studies

(for example, Steele et al., 2016; Chang and Chen, 2014; Velada and Caetano, 2007; Zwick, 2006; Faems et al., 2005). Conversely, Wright and Geroy (2001) and Alliger et al. (1997) found no significant link between training and organisational performance. According to Wright and Geroy (2001), training sought to achieve enhancement in organisational performance, but they found that in practice the relationship was generally too small to be significant. Roberson et al. (2009) suggested that although organisational performance could be considered a significant element in the evaluation of training outcomes, it had hardly ever been studied in training transfer research.

It was argued above that Kirkpatrick's model assumed that each level had a designated ascending order based on casual relationships and positive correlations between them. However, Kirkpatrick failed to demonstrate such a link (reported by Holton, 1996). Two meta-analysis studies of Kirkpatrick's training evaluation framework (Kraiger et al., 2004; Alliger et al., 1997; Alliger and Janak, 1989) found insufficient evidence for claiming the existence of a causal linkage between training and outcomes. They argued that there was only a small positive relationship between learning and behaviour and between behaviour and organisational results. The successful transfer of training to work depended on other factors that included a favourable work climate and a positive learning culture (Grossman and Salas, 2011). Similarly, Blume et al. (2010) identified an appropriate learning culture as significant to the extent that learning was transferred to the job and produced meaningful changes in job performance.

However, Wright and Geroy (2001) found a moderate and positive correlation between the learning level and the results level in all training evaluation models. Therefore, it could be argued, the results level was not required as a separate assessment level. However, when training outcomes could not be measured accurately at the behavioural or results level, significant uncertainty was created about whether the training achieved the goals set for it (Singer, 1990). Kirkpatrick's model assumed incremental importance between the ascending levels e.g. that each successive level of training outcome provided information that was more important than the previous one (Aguinis and Kraiger, 2009; Kraiger et al., 2004; Alliger and Janak, 1989). For example, Kirkpatrick (1994) explained that level 4 - results supplied the most significant information about training programme effectiveness in relation to the likelihood of increased sales, reduced cost, increased production, improved quality, increased efficiency and lower labour turnover at the organisational level. However, in practice, Kirkpatrick did not provide adequate justification for the incremental importance assumption in his model and no evidence had since emerged that supported it (Guerci et al., 2015; Kraiger, 2003; Alliger et al., 1997).

Guerci et al. (2015) and Salas and Cannon-Bowers (2001) argued that Kirkpatrick's model was incomplete because it presented an oversimplified view of training outcomes by not considering individual or contextual factors that might influence the evaluation process. A wide range of research (for example, Salas and Cannon-Bowers, 2001; Ford and Weissbein, 1997; Cannon-Bowers et al., 1995; Ford et al., 1992; Tannenbaum and Yuki, 1992) identified several individual, organisational, environmental and training design factors that impacted on training effectiveness, all of which Kirkpatrick's model ignored. For example, contextual factors namely organisational goals and values (Ford et al., 1992); the work climate for learning transfer (Colquitt et al., 2000; Rouiller and Goldstein, 1993; Noe and Schmitt, 1986); the learning culture of the organisations (Tracey et al., 1995); organisational stakeholders involved in the training process (Guerci et al., 2015) and the nature of interpersonal support in the workplace for skill acquisition or behaviour change (Bates and Davis, 2010) were all suggested to have a significant impact on the effectiveness of training as measured by the outcomes. All work which demonstrate the value and convergence of the training evaluation literature and the training transfer literature, themes that reappear in chapter 5.

Kirkpatrick's model was regarded as an easy model through which to measure immediate and short-term training outcomes. That was usually achieved through the basic information which assessed the extent that training attained its objectives at levels 1 and 2 (Khalid et al., 2012; Kirkpatrick and Kirkpatrick, 2006; Shelton and Alliger, 1993). However, levels 3 and 4 in Kirkpatrick's model provided results that focussed on information that whilst potentially of most value in assessing the overall impact of training on the competitive position and profitability of a businesses, were the most difficult to determine and so infrequently used in practice. The training transfer literature suggested that a different focus to that of Kirkpatrick (and later models) could have benefit in meeting the need for training evaluation. That approach provided focus on the factors necessary to achieve successful transfer, themes subsequently incorporated in the development of the context specific training evaluation theory and model in chapter 5.

Hamblin (1974) was one of the first to modify Kirkpatrick's model. The justification being that Kirkpatrick did not fully consider the design of the training event or the original business need (for example, Kaufman and Keller, 2006). Hamblin believed that there were cause and effect relationships between all the levels in his model. Positive trainee reactions to learning created positive learning outcomes that created changes in job behaviour that led to changes in the organisation and finally its ultimate value (Kraiger, 2003; Tamkin et al., 2002; Holton, 1996). Holton (1996) argued against using reactions as an outcome of



training because there was little relationship between them and the learning acquired. However, Blanchard et al. (2001) and Clement (1982) found a significant correlation between reaction and learning when they tested Hamblin's model. Warr et al. (1999) argued that although the Hamblin and Kirkpatrick models showed that participant reactions were related to learning they were not related to job behaviour. It was also argued that positive trainee opinions about training did not automatically lead to improved learning (Alliger and Janak, 1989). Doubt about the level of casual relationship between variables was therefore established, and it was not clear if the results at the lower levels of the models could predict the results at the higher levels (Tamkin et al., 2002). According to Blume et al. (2010) and Bates and Davis (2010), training programmes were successful only when the knowledge and skills acquired were transferred to the workplace. However, even though learning was successfully applied in the workplace, there remained a question as to whether it would impact on organisation level results (Kirkpatrick and Kirkpatrick, 2006). Successful learning transfer to the job required time to elapse for the outcomes to be achieved and for the use of the KSAs to be maintained over time (Bates and Davis, 2010; Tamkin et al., 2002; Baldwin and Ford, 1988), factors missing or undervalued in the existing models.

Hamblin's model for training evaluation was argued to contain several limitations. For example, as with Kirkpatrick's model, that of Hamblin lacked in rigour because of the inclusion of invalid assumptions and elements within it (Tamkin et al., 2002; Alliger et al., 1997; Clement, 1982). Tamkin et al. (2002) pointed out that the model did not consider individual differences or contextual factors that could impact on the achievement of successful training. Views supported by several writers (for example, Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Burke and Hutchins, 2007) who argued that individual differences and the work environment both impacted on training transfer. Hamblin included the contribution of training to a company and society at levels 4 and 5. However, Clement (1982) argued that change at these levels were dependent on a wide range of non-training factors that included the number of individuals who had been trained, the number that were able to transfer the learning acquired to their work and company policies on social engagement. According to Blume et al. (2010), environmental predictors that included training transfer climate and peer and supervisory support for it were strong predictors of successful training transfer. A number of studies (for example, Tannenbaum et al., 2012; Burke and Hutchins, 2007; Salas et al., 2006; Salas and Cannon-Bowers, 2001; Ford and Weissbein, 1997; Tannenbaum and Yuki, 1992) showed that Hamblin did not take into account several significant individual and environmental predictors which had the potential to impact on the achievement of training effectiveness.

Kaufman's (1995) model represented a revision of Kirkpatrick's by moving beyond the organisation and attempting to measure the benefits of training to society and the surrounding environment (Kraiger et al., 2004; Kraiger, 2003; Phillips, 2003; Alliger et al., 1997). The five levels in Kaufman's model proposed a simplified reflection of the effectiveness of training compared to Kirkpatrick, because it did not consider the influence of organisational context (Grossman and Salas, 2011; Bates and Davis, 2010; Blume et al., 2010; Burke and Hutchins, 2007; Salas et al., 2006; Salas and Cannon-Bowers, 2001; Wright and Geroy, 2001; Colquitt et al., 2000; Alliger et al., 1997). However, as already indicated, organisations primarily utilised only level 1 - resources and processes, and level 2 - acquisition, with few using level 3 - application, level 4 - organisational payoff or level 5 - societal contribution. Kirkpatrick's model was expanded by Kaufman to consider the internal and external training consequences for performance and organisational improvement (Kraiger et al., 2004; Stokking, 1998). Stokking also suggested that the model lacked clarity in the distinction between the desired chronology of activities and the importance of implementation at the different levels. Broad and Newstrom (1992) argued that it was necessary to explicitly consider the role of key stakeholders in training transfer, factors missing from Kaufman's model. Kaufman's model also assumed that the organisation was the key stakeholder for evaluation and neglected the needs of other stakeholders (Wright and Geroy, 2001). It also ignored the nature and importance of interpersonal support in the workplace for skill acquisition and application (Bates and Davis, 2010).

According to Kaufman (1995), level 4 - organisational payoff was designed to evaluate the organisational results and level 5 - the societal contributions to measure the contribution in terms of client and society benefits. However, according to Kraiger et al. (2004) and Alliger et al. (1997), these two levels in Kaufman's model did not reflect the direct impact of training outcomes or demonstrate a strong link between them and the training delivered. Wright and Geroy (2001) claimed that most training did not impact the organisational payoff level because other factors more strongly impacted on it (for example, supply chain influences, marketing strategy and market conditions). Although Kaufman's societal contribution level differentiated it from Kirkpatrick's model, it reflected a potentially large and vague context which required the need for a macro level analysis. However, such analysis was both complex to undertake and subject to the effects of other factors, making it difficult to isolate the effects of training (Kraiger, 2003). Alvarez et al. (2004) argued that the difficulty in the determination of training effects at level 5 in Kaufman's model meant that it offered no advantage over the original Kirkpatrick model and was also impractical for use by practitioners.

The Philips training evaluation model (1997) incorporated the four levels of evaluation developed by Kirkpatrick and was only differentiated from it by the addition of a fifth level, ROI (Sachdeva, 2014; Alvarez et al., 2004). ROI compared the financial benefits that accrued from training with the cost of providing it (Philips and Philips, 2016; Sachdeva, 2014; Chmielewski and Phillips, 2002). However, the measurement of ROI in relation to a single training programme was complex and difficult because so many other factors were active at the same time in the dynamic context of an organisation (Subramanian et al., 2012). A different approach was adopted by Blume et al. (2010) and other writers who suggested that the focus of training evaluation should be on the factors that produced successful training transfer rather than complex factors such as ROI. The argument being that successful training transfer would ultimately lead to the best outcome for the organisation, even if that could not be quantified in financial terms.

A training programme directly contributed to the organisation when managers were subsequently able to get an improved performance from subordinates (Subramanian et al., 2012). However, many factors other than human performance influenced a company's success or failure. For example, the economic and/or competitive environments, raw material prices, internal company system and procedure changes and government taxation policies etc. All of which suggested that it was difficult to prove a direct link between training and company performance, especially over the medium to long term. Calculating the impact of a training programme's ROI was an expensive and time-consuming process, because it required a significant volume of data and involved complex calculations, a reality accepted by Philips and Philips (2016). Consequently, it was significantly more difficult and expensive to apply than Kirkpatrick's results level (Matalonga and Feliu, 2012; Alvarez et al., 2004; Kraiger, 2003). Also, because elements other than training impacted on business performance, it was necessary to demonstrate that the ROI ignored them and focussed only on the costs and benefits of training (Subramanian et al., 2012). Like the Kirkpatrick and Kaufman models, Philips did not consider organisational or environmental contexts in the measurement of training costs or benefits. That added to the complexity involved in measuring ROI meant that it added nothing significant or of practical value to the equivalent levels offered by the other models (Sachdeva, 2014; Matalonga and Feliu, 2012; Subramanian et al., 2012; Alvarez et al., 2004).

The model proposed by Guskey (2000) involved assessment that ranged from simple to complex, across the levels (Guskey, 2012). All of which required significant resources for data collection and analysis (Amy, 2010). The justification for the model being that the cause and effect relationships between the levels presumed positive results at each level

before any effect at the higher level would be detected (Praslova, 2010). Guskey's model represented an adaptation of the Kirkpatrick (1959) model and was intended to be applied to the specific context of professional development (Guskey, 2012). Amy (2010) indicated that Guskey's model had three potential implications for the evaluation of organisational development. Firstly, it provided a framework through which to evaluate the relationship between professional development and changes in participant behaviour. Secondly, it called for routine data collection and the explanation of results. Thirdly, the model provided an overall systemic process for gathering the data needed to inform evaluation.

However, one weakness of the Guskey model was identified as the lack of evaluation regarding organisational support for training (Guskey, 2012; Fitzpatrick et al., 2011; Praslova, 2010). According to Fitzpatrick et al. (2011), the model contained several other limitations. Firstly, the application of the model required a significant timescale, along with an in-depth analysis of current, acquired and future KSAs to determine improvement. For example, level 1 assessment would be conducted immediately after the delivery of a development activity, but the assessment of level 5 would only be conducted about one year later. Many things could change during that time period, including faculty turnover, trainee turnover, trainee job changes or organisational change, any of which could impact on the meaningfulness of the results. Additionally, in any learning environment multiple programs were likely to be active at the same time with trainees potentially attending more than one programme making the results and effects of individual professional development activities difficult to differentiate (Fenton and Watkins, 2007). Blume et al. (2010) argued that when trainees found the climate and support for professional development positive, they tended to apply what they had learned to their work more effectively and enthusiastically. Amy also indicated that to ensure the validity and reliability of the data collection instruments, the evaluator was required to be involved in both the development of the professional development activities and the evaluation of them, points supported by Guskey (2012). Fitzpatrick et al. (2011) pointed out that it was necessary to collect significant and useful information for an evaluation process to be effective. Thus, information about a program's impact could inform all aspects of professional development, including program design, implementation, and follow-up, points subsequently supported by Guskey (2017).

Richard (2011) suggested that his model was scientifically robust and provided easy to use measurements for the learning outcomes of training. Richard argued that the motivation to learn was a key driver for effective training, but that the organisational triggers associated with statutory requirements, policy development, organisational change and training needs

analysis were often more important drivers for it. Richard suggested that organisational investment drove the requirement for value in an organisation and that direct and indirect workplace training had a significant part to play in the achievement of it. Richard (2011) did not require evaluation at level 1, the pre stage of learning in his model, but he viewed it as important because it could impact significantly on the subsequent success (or failure) of training. The important elements in the pre-stage of learning were, according to Grossman and Salas (2011) and Blume et al. (2010), the wide range of individual differences, trainee characteristics and organisational culture factors that would subsequently produce a significant impact on training transfer.

According to Richard (2011), learning should be designed to be relevant to the needs of the organisation, which therefore provided the basis for the assessment of the effectiveness of the training delivered. Virtually all of the training evaluation literature suggested that evaluation should be part of management decision making (Steele et al., 2016). For example, information should be generated about learning inputs and outcomes in relation to training effectiveness which should lead to the continuous improvement of the training offered (Hubbard, 2014; Cascio, 1991; Flamholtz, 1985). Although Richard introduced a more complex and holistic model than Kirkpatrick, it ignored one important element associated with training outcomes in that it excluded the impact of stakeholder involvement on them (Steele et al., 2016). Hubbard (2014) explained that the value of training evaluation should be worth the cost of the processes involved, an aspect of training evaluation ignored in all the evaluation frameworks discussed. However, as Steele et al. (2016) and Boudreau (1991) indicated, decision making about such processes and results could become corrupted by intentional or unintentional bias. Such effects might originate in the data collected, or through the evaluators making decisions influenced by personal, professional, organisational or political reasons, resulting in the results being of limited value and potentially invalid.

Kirkpatrick's (1959) model was the original, widely known model and served as the basis for the subsequent major evaluation approaches, table 2.1. However, among practitioners its use was commonly restricted to levels 1 and 2 because of their simplicity, ease of use and the complexity required to assess the higher levels. The potential upside of the Kirkpatrick model being that it included an important link to business objectives, although there was little evidence of that being used in practice. Weissner et al. (2008) and other writers went further than critiquing the Kirkpatrick model and argued that there was neither a complete nor totally appropriate model available for the evaluation of training programmes. They argued that most evaluation models produced partial or questionable

outcomes as a result of the incorporation of invalid assumptions and elements. They also pointed out that the use of such models generally focused on the individual levels of satisfaction and learning results. Several writers (for example, Karthik, 2012; Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001; Salas and Cannon-Bowers, 2000; Martocchio and Baldwin, 1997) argued that none of the existing theories addressed training as a contribution to reduced labour turnover, reduced absenteeism, reduced levels of conflict or increased productivity.

It was apparent from the above discussion that the higher levels in all of the models currently available were all too complicated for adoption if organisations did not have the time, financial resources or the technical capability to do so. The difficulty of separating out factors other than training that also impacted on business functioning was also a limiting factor in the use of the higher levels in the models. Several writers discussed above stressed that a key test of the viability of any model of training evaluation was that it had the ability to compare results achieved with what was expected. For practitioners, a number of factors existed that generated confusion and uncertainty about what evaluation was, what it was for, and how it could be used most effectively. For example, the requirements of different stakeholders; the number of evaluation models available; organisational political pressure to focus on short-term benefits and/or which showed the training function in a positive light; limited demand from senior management for the effective evaluation of training and limited competence within evaluation practice; all resulted in limited use of the full potential of any of the models available. However, it was clear from the work of several writers that to achieve the best overall return from training investment, training outcomes in relation to the transfer of KSAs to the workplace should be determined by subsequent participant behaviour, taking into account a range of situational factors, individual differences and characteristics. An approach different to the standard training evaluation literature by concentrating on factors that led to acquired KSAs being applied to work settings and which resulted in meaningful changes in job performance. The factors that had the most direct impact on successful training transfer were suggested in the literature to include trainee characteristics, training design and the work environment. The inclusion of the training transfer literature in the critical evaluation of the existing training evaluation models demonstrated that much common ground existed between them. That underscored the view that there were deficiencies within the existing training evaluation models and gaps in the literature. Consequently, the aim of this research was well founded in the search to better understand whether the current models could be more appropriately focussed on the needs of the specific research context. The

incorporation of the training transfer literature further adds to the potential to develop and adopt a more comprehensive and practical approach to training evaluation. In short, the literature review supports the research intention to explore the topic of training evaluation in a new and different context and adapt an existing model or develop a new one relevant to it. The following section will explore training evaluation literature specifically relevant to the research context to identify additional perspectives that need to be considered in planning the research.

## **2.7 Training programme literature relating to Bangladesh and other developing countries in the region**

This section explored training related literature from Bangladesh and other developing countries to identify issues of relevance to this research. According to Rahman (2012), many companies, particularly in developing countries, viewed training in terms of the maximisation of a return on investment. Rahman argued that in developing countries training reflected a set of human resource management practices that contributed to the sustainable development of internal stakeholders in the best interests of the business. Hossain and Islam (2012) suggested, based on research in Bangladesh that most organisations needed to focus on the introduction of training and its evaluation to create an effective workforce. Akther et al. (2018) suggested, based on their research in several Asian countries, that organisations needed effective training in order to maintain market competitiveness and ensure business survival. For example, a three-week course that covered training, project management and their evaluation was conducted two or three times each year from 2006 with most of the participants being from developing countries, particularly Bangladesh, Pakistan, India, Nepal and Sri Lanka (Hassan, 2015; Aarthi, 2014; Akther et al., 2018). The success of that programme over several years demonstrated that training provision and its evaluation were active topics in several developing countries in the region. However, no literature was found which specifically explored training evaluation in developing country textile industries. Neither was any literature found that explored which factors impacted on training outcomes, or how to evaluate the level of success achieved. Findings that confirmed the earlier work of Betcherman et al. (2004). Therefore, relevant literature from a range of industries in developing countries was identified and used in the current research where appropriate.

Moyeen et al. (2001) suggested that the private sector in Bangladesh needed to recognise the importance of training for the enhancement of employee performance because organisational success was heavily dependent on it. Rahman (2012) remarked that over the years training in Bangladesh had contributed to the achievement of sustainable

development. Tarek (2008) argued that the emergence of global markets demonstrated the need for training to create a dynamic workforce to help achieve company objectives and success. Points particularly pertinent to the textile industries in Bangladesh as the global markets comprised customers with more options and bargaining power than suppliers. Therefore, customers were able to make choices based on criteria other than price, product or supply chain factors (Ahmed, 2005). These arguments were supported by Halfmann (2013) who said that training was particularly significant for the textile, chemical and pharmaceutical industries in Bangladesh in order to improve productivity and efficiency. Tarek (2008) suggested, based on a study of the textile and readymade garment sectors in Bangladesh, that training had the potential to address the skill gaps that were an impediment to increased productivity in all developing economies. Customer demand for excellent product quality and supplier compliance with high standards of employment practice resulted in a wide range of training requirements to achieve sustainable, long-term business relationships in developing countries (UNDP, 2016). Therefore, it was clear from the literature that training evaluation represented an important basis for understanding the value and effects of the training provided. Although recognition of that had not resulted in any published research into the topic.

Akther et al. (2018) pointed out that some businesses in Bangladesh had employee training centres that provided business specific training intended to maximise employee performance. They also suggested that such organisations generally recruited unskilled individuals for employment and then provided them with job related training designed to maximise performance delivery. However, they also found that many organisations in Bangladesh did not have their own training centres and in some cases did not employ training professionals. Instead, such organisations relied on the recruitment of experienced people, with the use of outside training providers for additional training. For example, some textile companies in Bangladesh undertook training provided through the Institute of Apparel Research & Technology (IART) for technical training and the Bangladesh Institute of Administration and Management (BIAM) for the development of management level employees. Akther et al. (2018) explained that however training was provided, training needs analysis (TNA) and previous training evaluation results frequently determined the necessity for and the type and design of training to be provided. The National Institute of Textile Training Research and Design (NITTRAD) in Bangladesh was founded to help organisations across all sectors of the textile industry create centres of excellence and improve employee efficiency by offering training needs analysis, training and its evaluation (Tarek, 2008). Aarhi (2014) reported that companies in the textile and clothing



sectors in Bangladesh planned to invest in skills training for an estimated five thousand workers at all levels by 2016. The intention is being to increase productivity and the long-term employability of industry workers. Moreover, Aarthi pointed out that the Skill Development Centre of Excellence Training Institute (SDCETI) offered skilled workers within the textile and clothing sectors a range of skill development training in order to raise their levels of capability. Tarek (2008) indicated that a considerable number of employees from the textile industry in Bangladesh attended a wide range of training programmes each year, all of which needed to be monitored in order to assess the effectiveness, outcomes and level of success achieved.

Betcherman et al. (2004) argued that in developing economies training transfer evaluation was required to identify the outcomes and impact of training and whether the training objectives had been met. Karthik (2012) and Betcherman et al. (2004) also argued that evaluation should go beyond the identification of the degree to which training was successful but should also identify which training best suited the context specific training needs. They also suggested that training evaluation should identify which employee groups and individuals would need to be trained in the future.

A study of the training evaluation strategies to ensure training transfer in public sector organisation in Pakistan was undertaken by Azeem et al. (2012). They found that HRD training represented a significant way to achieve the organisation's objectives. However, they also noted that evaluating training outcomes was limited in the Pakistani public sector. They also found effective training evaluation could enable management to construct a results oriented training plan. Thus, Azeem et al. concluded that a training assessment strategy was required to ensure training effectiveness in the public sector. Azeem et al. also suggested that individual differences or organisational culture were factors that could impact on successful training transfer. But, they did not propose an approach how to evaluate training outcomes. Factors that were argued by several writers discussed above to be significant (for example, Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010).

A study of HRD strategies at various levels in the construction industry in India by Singh (2004) revealed that there were few professional trainers involved in construction-related training. They suggested that frequent refresher training for many of the key skill areas, along with efforts to provide systematic technical training, were essential to the success of construction projects. Although the transfer of learning was among the issues addressed by this research, it did not explore the extent to which it impacts on training outcomes; neither

did it explore how training could be evaluated. Another study from India, into training practice in the Indian Steel Industry by Nageswaramma and Padmaja (2017), suggested that the effectiveness of training could be maximised by following a ten-step programme. The steps were: (1) training-needs identification, (2) pre-training activities, (3) planning and organising the programme, (4) designing the module (s), (5) feedback on the faculty, (6) feedback from the external faculty, (7) development and control of training plans and budgets, (8) development of in-house faculty, (9) the use of external seminars and training programs, and (10) a focus on delivering quality training. Their ten-step approach to training effectiveness had synergy with elements from several of the existing models of training evaluation discussed earlier. For example, step 2, pre-training activities, would lend itself to evaluation through Richard's (2011) level 1, the pre-training stage. Also step 10, focus on delivering quality training, reflects elements from several of the levels across all of the existing models. For example, levels 1, 2, 3 and 4 from Kirkpatrick's (1959) model all contained elements that would be relevant to the delivery of quality training. However, Nageswaramma and Padmaja (2017) did not offer any guidance on how the 10 steps could be measured in order to evaluate the success of training.

Singh (2006) proposed a model which could be used for the design of cross-cultural training intended to address issues in the globalised world. However, in doing so he did not identify anything related to the degree to which cross-cultural issues in a developing country impacted on the success of training, or indeed, what other factors could be used to evaluate such programmes. Karuppannan (2012) carried out research on employee attitudes to the training provided by the Vellore District Cooperative Bank in India. Having done so, he argued that training and development were necessary for improving the quality and efficiency of all levels of employee. He also concluded that training was essential for organisational development in a world of fast changing technology, economic and market conditions and the social environment. However, he did not include anything related to training evaluation, training transfer or how they might be used to improve the training provided. Sayeed (2002) studied training in three major subsectors of banks in India (public, private and multinational). He concluded that training evaluation was a systematic process used to determine the worth, value or meaning of the training provided. He went on to argue that without training evaluation, guidance on future effective and objective based training could not be provided and the training budget could not be effectively created or managed. He also pointed out that the result of training on trainee learning and behaviour could not be determined unless a well-defined training evaluation process existed. However, having established the case for effective training evaluation being a

primary requirement for the achievement of effective training provision he did not indicate how that could be achieved. Neither did he refer to training transfer or existing training evaluation models. Research by Karuppanan (2012) in a private sector bank in India suggested that the effectiveness of training could be measured fairly by comparing the pre-training expectations and knowledge of trainees with their post-training experience. He also demonstrated that the grouping of variables used by the bank to evaluate training broadly matched the first two levels in Kirkpatrick's model of training evaluation. His work included aspects of training transfer because they attempted to explain the extent to which individual characteristics influenced the transfer of acquired knowledge to work activities. That research specifically informed aspects of the context specific theory and model development of this research as discussed in chapters 4 and 5.

Sing (2003) researched 84 organisations from a range of businesses from across the major domestic industries in India. He used the Huselid (1995) questionnaire to study the relationship between training and organisational performance. The results demonstrated that Indian organisations were not convinced that investment in training resulted in higher performance. Sing also analysed previous research on the evaluation of training in relation to behaviour and performance outcomes. For example, the extent to which trainee learning and subsequent behaviour resulted in organisational performance improvement. However, that research did not specifically explore the variables identified in the existing training evaluation models but adopted similar perspectives to the training transfer approach. However, he did not provide any empirical evidence about the relationship between behaviour and performance outcomes. Srimannarayana (2016) incorporated themes from training transfer when he conducted a training focussed work climate survey in 70 different organisations in India. The results demonstrated that a reasonably good training work climate, for example, support from managers to use newly acquired KSAs, resulted in good performance at work. A study in the cement industry in India by Singh (2005) focused on the role of trainers and the important characteristics necessary to be an effective trainer. That research demonstrated that trainer knowledge along with their skill and performance in session delivery was important characteristics. They also identified a positive climate surrounding training, training course design, appropriate training methods, evaluation of training activities and the facilities provided to support training, as relevant to successful training delivery. That research identified issues that were also evident in the existing training evaluation models discussed earlier. For example, the evaluation of training activities identified by Singh and Srimannarayana were reflected in level 1 - trainee reaction, in the Kirkpatrick (1959) model and the equivalent level in the other

models. There were also synergies between the work of Singh and Srimannarayana with elements from the training transfer and training evaluation literature because their work focussed on the factors that led to successful delivery.

The earlier sections of this chapter demonstrated clearly that training evaluation had been a leading area of research in the developed world for many years. However, a limited number of studies existed on training or the evaluation of training programmes in developing countries, specifically Bangladesh. Of the literature that did exist from developing countries, very little was from the textile industry and none at all from Bangladesh. Consequently, there existed an opportunity for research to add to the available stock of knowledge about the determination of the effectiveness and value of training in the context of the Bangladesh textile industry.

## **2.8 Issues identified from the training evaluation literature in relation to the proposed research**

In section 2.2, training was defined as subject oriented learning in order to change individual attitudes and/or change behaviour. Having reviewed the western based training evaluation models in section 2.4, the training transfer literature in section 2.5, and the literature from developing countries in section 2.7, several issues were identified in relation to the proposed research context. For example, the relationship between training and subsequent employee work behaviour, including issues such as employee commitment and individual performance outcomes, that were not fully captured by the existing literature (sections 2.4, 2.5, 2.6 and 2.7). Also, the full evaluation of training was often problematic when results were needed easily or quickly (section 2.6). Individual differences, contextual and environmental factors that impact on training or its evaluation (found in the training transfer literature) were ignored in all the existing training evaluation models.

The literature suggested that training had the potential to impact on performance outcomes at the organisational level, but little empirical evidence was found that supported that possibility. That was because of the difficulty in establishing direct links between training and organisational performance. For example, as a result of the time-lapse between training and any attributable impact on organisational level performance. Plus, factors other than training also impacted on organisational performance. For example, information technology, leadership, employee commitment, employee levels of motivation, levels of innovation, quality levels, policies and procedures, corporate governance, supply chain management, marketing strategies market conditions, and pressure from customers. However, most existing training evaluation models included levels of assessment that

attempted to identify training outcomes based on organisational results or performance. However, the criteria proposed required large volumes of data and were complex and difficult to assess. Consequently, for all of the reasons indicated, these levels from the existing training evaluation literature were rarely used in practice (section 2.6). Therefore, research was justified that sought to identify an effective assessment of training that captured the significant impact themes and was easy to use.

Many companies in Bangladesh and other developing countries invested significant amounts of capital to enhance employee KSAs. A small number of studies were found from developing countries that explored aspects of training and training evaluation from the perspective of training transfer (section 2.7). However, no studies were found from the context of the textile industry in Bangladesh which explored training evaluation or training transfer (section 2.7). From the above review of available literature, the identified knowledge gaps for each training evaluation model have been summarised in table 2.2. That analysis was used to inform the design of the research, the research process and to identify suitable, measurable factors for the evaluation of the effectiveness of training in the context of the textile industry in Bangladesh. However, the training transfer literature was not included as a separate entry in that table because it did not offer a model that could be represented in that way. However, it was incorporated subsequently where appropriate in the research analysis and conclusions in chapters 4 and 5. Because of the background to the research outlined above and in chapter 1, the research was designed to be exploratory and broadly focussed in terms of training and its evaluation processes within the specific context. The aim, objectives and research questions for this research based on the all the literature reviewed in this chapter were explained in sections 1.7 and 1.8.

Table 2.2: Identified knowledge gaps

Existing literature		
Existing theories	Research base context	Identified knowledge gap
Kirkpatrick 1959	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Hossain and Islam, 2012; Rahman, 2012; Bhatnagar, 2007; Betcherman et al., 2004.</p> <p><b>2. Individual differences and work environment factors</b> As discussed in sections 2.5 and 2.6 identified by Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Salas et al., 2006; Yamnill and McLean, 2001; Colquitt et al., 2000; Ford et al., 1992. Had the potential to impact on training transfer outcomes and training context but ignored in the training evaluation literature.</p> <p><b>3. Contextual factors</b> As discussed in section 2.6 and identified by Guerci et al., 2015; Salas and Cannon-Bowers, 2001; Ford et al., 1992. Ignored in the training evaluation literature.</p> <p><b>4. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001; Salas and Cannon-Bowers, 2000. Not considered in the training evaluation literature.</p> <p><b>5. Individual performance</b> As discussed in section 2.6 and identified by Karthik, 2012; Kraiger, 2003; Salas and Cannon-Bowers, 2000; Martocchio and Baldwin, 1997; Huselid, 1995. Not considered in the training evaluation literature.</p>
Hamblin 1974	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Hossain and Islam, 2012; Rahman, 2012; Bhatnagar, 2007; Betcherman et al., 2004.</p> <p><b>2. Individual differences and work environment factors</b> As discussed in sections 2.5 and 2.6 identified by Grossman and Salas, 2011; Blume et al., 2010; Salas et al., 2006; Tamkin et al., 2002; Colquitt et al., 2000; Alliger et al., 1997; Ford et al., 1992. Had the potential to impact on training transfer outcomes and training context but ignored in training evaluation literature.</p> <p><b>3. Contextual factors</b> As discussed in section 2.6 and identified by Salas et al., 2006; Salas and Cannon-Bowers, 2001; Ford and Weissbein, 1997; Tannenbaum and Yuki, 1992. Ignored in the training evaluation literature.</p> <p><b>4. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001; Salas and Cannon-Bowers, 2000. Not considered in the training evaluation literature.</p> <p><b>5. Individual performance</b> As discussed in section 2.6 and identified by Kraiger et al., 2004; Kraiger, 2003; Salas and Cannon-Bowers, 2000; Alliger et al., 1997. Not considered in the training evaluation literature.</p>

Kaufman 1995	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Hossain and Islam, 2012; Rahman, 2012; Bhatnagar, 2007; Betcherman et al., 2004.</p> <p><b>2. Individual differences and environmental factors</b> As discussed in section 2.5 and 2.6 identified by Grossman and Salas, 2011; Blume et al., 2010; Salas et al., 2006; Salas and Cannon-Bowers, 2001; Wright and Geroy, 2001; Alliger et al., 1997. Had the potential to impact on training transfer outcomes and training context but ignored in training evaluation literature.</p> <p><b>3. Contextual factors</b> As discussed in section 2.6 and identified by Grossman and Salas, 2011; Blume et al., 2010; Alvarez et al., 2004; Wright and Geroy, 2001; Colquitt et al., 2000; Alliger et al., 1997. Ignored in the training evaluation literature.</p> <p><b>4. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001. Not considered in the training evaluation literature.</p> <p><b>5. Individual performance</b> As discussed in section 2.6 and identified by Kraiger et al., 2004; Kraiger, 2003; Salas and Cannon-Bowers, 2000; Alliger et al., 1997. Not considered in the training evaluation literature.</p>
Philips 1997	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Hossain and Islam, 2012; Rahman, 2012; Bhatnagar, 2007 Betcherman et al., 2004.</p> <p><b>2. Individual differences and environmental factors</b> As discussed in section 2.5 and 2.6 identified by Sachdeva, 2014; Matalonga and Feliu, 2012; Subramanian et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Alvarez et al., 2004. Had the potential to impact on training transfer outcomes and training context but ignored in the training evaluation literature.</p> <p><b>3. Contextual factors</b> As discussed in section 2.6 and identified by Sachdeva, 2014; Matalonga and Feliu, 2012; Subramanian et al., 2012. Ignored in the training evaluation literature.</p> <p><b>4. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001. Not considered in the training evaluation literature.</p> <p><b>5. Individual performance</b> As discussed in section 2.6 and identified by Kraiger et al., 2004; Kraiger, 2003. Not considered in the training evaluation literature.</p>
Guskey 2000	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Rahman, 2012; Hossain and Islam, 2012; Chimote et al., 2012; Bhatnagar, 2007; Betcherman et al., 2004.</p> <p><b>2. Individual and contextual factors</b> As discussed in section 2.6 and identified by Fitzpatrick et al., 2011; Fenton and Watkins, 2007; Praslova, 2010. Had the potential to impact on training transfer outcomes and training context but ignored in the training evaluation literature.</p> <p><b>3. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001. Not considered in the training evaluation literature.</p> <p><b>4. Individual performance</b> As discussed in section 2.6 and identified by Kraiger et al., 2004; Kraiger, 2003. Not considered in the training evaluation literature.</p>

Richard 2011	Western based	<p><b>1. Not developed or validated in a developing country</b> As discussed in section 2.7 and identified by Hossain and Islam, 2012; Rahman, 2012; Bhatnagar, 2007; Betcherman et al., 2004.</p> <p><b>2. Stakeholder involvement</b> As discussed in section 2.6 and identified by Steele et al. (2016). Ignored in the training evaluation literature.</p> <p><b>3. Commitment</b> As discussed in section 2.6 and identified by Kooij et al., 2010; Jaw and Liu, 2004; Bartlett, 2001. Not considered in the training evaluation literature.</p> <p><b>4. Individual performance</b> As discussed in section 2.6 and identified by Kraiggr et al., 2004; Kraiger, 2003; Salas and Cannon-Bowers, 2001; Alliger et al., 1997. Not considered in the training evaluation literature.</p>
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## 2.9 Summary

Following Layder (2013), Chiovitti and Piran (2003) and McCann and Clark (2003) the initial literature review identified research gaps in the subject area and allowed the development of sensitising concepts. This provided both a solid grasp of existing knowledge (guided by Charmaz, 2014) and identified topics for exploration (Corbin and Strauss, 2015; Strauss and Corbin, 1998; Stern, 1995). This ultimately framed the impact of the literature review on the grounded theory approach to this research (guided by Charmaz, 2014).

The key points that emerged from the literature review were: (1) that all the training evaluation models currently available originated from Western contexts. (2) The existing training evaluation models did not consider individual difference, environmental factors and contextual factors for measuring training outcomes. (3) The existing training evaluation models did not consider employee commitment or individual performance for measuring training outcomes. (4) There were no studies in the training evaluation field specifically located within the context of the textile industry in Bangladesh. (5) There were no studies based on the textile industries in any other developing country in the region. (6) There were few studies about training, development or its evaluation from any developing country in the region. (7) That the training transfer literature, which adopted a different approach to the identification of training benefits, did not fundamentally change or amend the existing training evaluation models, or the research gaps identified. Consequently, both literature and theoretical gaps were identified which justified the current research. Therefore, this research offered a means to contribute to new knowledge and applied approaches to the evaluation of training programmes, specifically within the research context. In addition, the initial literature review identified the most appropriate methodological approach and epistemological framework for the research. The research philosophy, methodology and methods for this research are discussed and justified in the next chapter.



## **Chapter 3: Research philosophy, research methodology and adopted research method**

### **3.1 Introduction**

The chapter begins with a general discussion of the research philosophy and philosophical position underpinning the research. That is followed by an explanation and justification of the ontological and epistemological stances for the chosen theoretical perspective and the research methodology that emerged from those choices. An explanation and justification for the constructivist epistemological stance and the interpretivist theoretical perspective for the research is then presented. The inductive research approach was adopted for the research and is also justified in the chapter. The justification for a qualitative research approach is also provided. A discussion of the contextual factors which informed the choice of the Crotty research design is then presented. The justification for the grounded theory methodology adopted and an explanation of how that informed the research method choices and the conduct of the research then follows. The data collection and analysis process including sample size, sampling procedure, data recording methods, the use of memos and constant comparison analysis are then explained. The development of the emergent theory from the conceptual categories derived through open coding, axial coding and selective coding processes will then be discussed. The chapter concludes with an explanation of substantive theory in relation to the outputs expected from the research.

### **3.2 Research philosophy and the philosophical assumptions underpinning the research**

#### **3.2.1 Research philosophy**

Saunders et al. (2015) and Guba and Lincoln (2005) explained that research philosophy represented a system of beliefs and assumptions about the development of knowledge. It embraced the assumptions that underpinned every aspect of research which included the ontological, epistemological and methodological positioning and the research methods adopted (Crotty, 1998). The research philosophy also reflected the assumptions which underpinned the research strategy adopted (Saldana, 2015; Saunders et al., 2015; Charmaz, 2014). According to Saunders et al. (2015), the four main research philosophies were pragmatism, positivism, realism and constructivism (also referred to as interpretivism). However, positivism and interpretivism were the most widely used in research (Denzin and Lincoln, 2011).

##### **3.2.1.1 Positivist research philosophy**

Positivists believed that reality was stable and could be observed, described and explained from an objective viewpoint without interfering with the phenomena being studied (Sarantakos,

2012). Positivists contended that the phenomena being studied should be isolated from other phenomena and that the research methods and observations should be repeatable. That involved the encapsulation of reality in a controlled environment, with variations in a single independent variable being applied and studied (typically as a laboratory experiment). Regularities in, and relationships between, the constituent elements of the phenomena would then be identified during the research (Saunders et al., 2015).

### **3.2.1.2 Interpretivist research philosophy**

Interpretivists contend that only through the subjective engagement in, and interpretation of, reality could it be fully understood. In interpretive philosophy, knowledge was relative to circumstances and consequently, existed in multiple forms as the subjective personal representations of reality (Denzin and Lincoln, 2011). It was focussed on the identification of the multiple meanings in both human experience and ways of knowing that were active in the research context (Denzin and Lincoln, 2011; Guba and Lincoln, 2005). The interpretive philosophy posited that truth and meaning were created for each person through their interactions with, and experience of, the world that they inhabited.

Interpretivism was the research philosophy adopted for the current research. The primary justification being that respondent views about, and understanding of, training evaluation would be based on their personal experience in the research context and was what the research sought to capture. Consequently, the research would not claim to discover absolute truth, but reflected contextual truth as understood and articulated by respondents (guided by Flick, 2015; Crotty, 1998). Although the knowledge created by this research was constructed from participant understandings, it was based on consistent underpinning principles (discussed below).

### **3.2.2 Interpretivist philosophical assumptions for this research**

A consistent set of assumptions was required to constitute a credible and coherent research philosophy. That choice informed the methodological choices, research strategy, data collection techniques and data analysis procedures (Cresswell, 2014; Denzin and Lincoln, 2011; Guba and Lincoln, 2005; Crotty, 1998). That allowed the design of a coherent research project in which all elements fitted together within a justified philosophical underpinning (Denzin and Lincoln, 2011). The following sections justify the philosophical positioning of the research to provide the underpinning for the research framework adopted.

#### **3.2.2.1 Relativism: The ontological position**

“Ontology is the study of being” (Crotty, 1998, p. 10) and therefore, raised questions about the nature of reality and the nature of the human being in the world (Denzin and Lincoln, 2011).

Ontology addressed the question of whether reality existed within human consciousness and experience (Denzin and Lincoln, 2011). Critical realist and relativist ontological perspectives represented the two main possibilities for ontological positioning (Guba and Lincoln, 2005). Critical realists believed that the world existed independently of the human experience of it, with only glimpses or fragments accessible to the individual or researcher (Letourneau and Allen, 2006). From that perspective, understanding the realities that existed in a particular context was achieved through reasoning rather than direct observation, because only the results of causal forces (rather than the causal forces themselves) could be observed (Clark et al., 2007; Cohen et al., 2007). On the other hand, relativist ontology was the belief that reality was a subjective experience for each individual because nothing existed outside of the human mind and thought (Denzin and Lincoln, 2011; Crotty, 1998). From that perspective, reality was human experience and human experience was reality (Denzin and Lincoln, 2011). Consequently, with multiple interpretations of experience come multiple realities, there would be as many realities as there were research contributors (Guba and Lincoln, 2005).

The relativist ontological position was adopted for this research because it accepted that there was no single reality or truth to be found, only the multiple realities experienced by respondents. The research also adopted the Crotty (1998) view that ontology and epistemology were mutually dependent and difficult to distinguish because each ontological position implied a particular epistemological position and vice versa. For example, the multiple realities within the relativist ontological position were consistent with the subjective constructivist epistemological position.

### **3.2.2.2 Constructivism: The epistemological position**

Epistemology provided the philosophical grounding for understanding knowledge as “a way of understanding and explaining how I know what I know” (Crotty, 1998, p. 3). It sought to explain how a researcher came to know reality in the research context and in doing so was concerned with the relationship between the enquirer and the known (Denzin and Lincoln, 2011; Guba and Lincoln, 2005; Crotty, 1998). Logically, the ontological position confirmed the epistemological position adopted by the research (Crotty, 1998). According to Charmaz (2014) and Guba and Lincoln (2005), constructivist research represented relativist, transactional and subjectivist world views.

This research adopted the constructivist epistemology as the most appropriate basis for the identification of the research methodology, along with the aim, objectives and research questions, following Crotty (1998) (justified in sections 3.2.2 and 3.5). The constructivist

view being that the multiple realities identified during research would be socially constructed through interaction between researcher and participants (Flick, 2015; Charmaz, 2014; Bryman, 2012; Denzin and Lincoln, 2011; Lincoln et al., 2011; Lincoln and Guba, 2005; Crotty, 1998). That required qualitative research to understand those realities and allow theory to emerge from them (Saldana, 2015; Saunders et al., 2015; Creswell, 2014). Meaning that to fully understand the investigated phenomena, findings should be created and interpreted in terms of their contextual understanding and significance (Flick, 2015; Saunders et al., 2015; Charmaz, 2014; Denzin and Lincoln, 2011; Lincoln et al., 2011; Cohen et al., 2007; Lincoln and Guba, 2005).

The adoption of the constructivist paradigm encouraged meaningful engagement with participants in their social setting. The aim being to understand and reconstruct participant experience and attempt to reach a consensus between their differing perceptions, leading to the development of meaningful, context specific outcomes. That would be achieved through iterative analysis in which constructions would be open to new or modified interpretation as additional data was integrated into the analysis. Crotty's (1998) view was that the constructivist and interpretive paradigms were interconnected in such a way that the positivist, objectivist or subjectivist epistemologies could not be sustained at the same time. According to Crotty, any theory or model from the existing literature might not align with the views held by people in a different context to the original research. The current research sought to identify a training evaluation theory and model relevant to the Bangladeshi textile industry context, whereas the existing literature originated from different industries in western, developed economies.

### **3.2.2.3 Interpretivism: The theoretical perspective**

Crotty defined the interpretive theoretical perspective of his research design framework as "the philosophical assumptions informing the methodology" (Crotty, 1998, p.3) and suggested that many theoretical research perspectives resulted from particular epistemological and ontological stances. For example, he suggested that the interpretive theoretical perspective comprised elements of both constructivist and subjectivist epistemology, which could justify a variety of methodologies including grounded theory, case study and action research (views supported by Saunders et al., 2015; Creswell, 2014; Denzin and Lincoln, 2011; Guba and Lincoln, 2005; Lincoln and Guba, 1985).

The interpretive theoretical perspective was adopted for this research because it focused on the social construction of reality in a particular social setting based on the understanding and experience of the people in that context (based on Easterby-Smith et al., 2018; Flick,

2015; Saunders et al., 2015; Sarantakos, 2012; Crotty, 1998). The outcome from such research would therefore be based on the impact of the phenomena on the people from that context and the researcher's interpretation of the data collected. According to Crotty (1998), such research reflected a constructivist epistemological position, which governed the choice of the interpretive theoretical perspective and informing the choice of grounded theory methodology (discussed in sections 3.2.2.1 and 3.2.2.2).

Interpretive research supported the adoption of flexible research structures (Creswell, 2014) and accepted that the researcher entered the field with some prior insight and background knowledge of the research context and topic, even if they had not undertaken a specific literature review. However, Sarantakos (2012) argued that the prior insights available to a researcher were not sufficient to understand or interpret social life in every research context as each was relatively unique. Thus, the constructivist-interpretive perspective was adopted for this research in order to provide a logical and consistent basis to understand the phenomena being investigated through the perspective of participants. That would generate the construction of context specific meanings, taking existing knowledge into account as appropriate. That perspective provided the basis for the formulation of the aim, objectives and research questions for the research (sections 1.7 and 1.8).

#### **3.2.2.4 Grounded theory: The methodology**

Methodology represented the strategy, plan of action and processes behind the choice and use of research methods (Crotty, 1998). Different methodologies had common underlying interpretive theoretical perspectives, for example, grounded theory, phenomenology, ethnography and action research (Charmaz, 2014; Creswell, 2014; Crotty, 1998). However, each methodology could be implemented through different combinations of research methods (Saunders et al., 2015).

Grounded theory methodology was used in the current research to capture the data that was needed to derive a context specific theory (Charmaz, 2014; Coyne and Cowley, 2006; Wimpenny and Gass, 2000) (sections 3.5 and 3.6). According to Charmaz (2006, p. 330), grounded theory research was consistent with constructivist epistemology and ontology by “placing priority on the phenomena of study and seeing both data and analysis as created from shared experiences and relationships with participants and other sources.” Charmaz also believed that from that perspective, grounded theory was firmly within the interpretive tradition. The interpretive research philosophy justified earlier supported the adoption of the grounded theory methodology which involved the involvement of participants in creating understanding. Grounded theory methodology was closely aligned with the

interpretive view of qualitative research and the inductive approach to it (Cresswell, 2014; McGhee et al., 2007; Charmaz, 2006; Crotty, 1998).

### **3.3 Research approaches**

According to Cresswell (2014) and Maxwell (2013), a research project should outline of the different research approaches available, followed by a detailed explanation of the approach adopted. That ensured rigorous research that demonstrated effectiveness and validity. Cresswell (2014) pointed out that the choice of research approach depended on the nature of the research problems and questions being addressed, researcher experience and their views about the world and stakeholders (the philosophical underpinning). The choice of research approach was either development of hypothesis (deductive approach) or the formulation of research questions (inductive approach) (Saunders et al., 2015). The approach adopted is discussed below.

#### **3.3.1 The deductive and inductive approaches**

The deductive approach tested the efficacy of a theory or hypothesis (Saunders et al., 2015; Silverman, 2013; Wiles et al., 2011). It represented an approach that sought to develop a generalisable result and/or re-examine the results from previous research (Wiles et al., 2011). Deductive reasoning occurred when a conclusion was derived logically from a set of premises, the conclusion being held to be true when the premises were found to be true (Ketokivi and Mantere, 2017). Experimental research was the most common deductive based research method. Deductive research started with theory, often developed from existing literature, and the research was designed to replicate or test that theory (Saunders et al., 2015; Silverman, 2013). The main benefit from such research was the generalisability of results, based on appropriate sampling and statistical tests of significance (Saunders et al., 2015).

When research embarked on an enquiry without theory to guide or influence it, knowledge creation began with the collection of data. The analysis of data collected allowed a theory to emerge that was not based on hypothesis testing (Bryman, 2012), referred to as inductive research (Flick, 2015; Saunders et al., 2015). An approach that could be used to create a new theory, or to explore the possibility of applying or adapting an existing theory to a new context (Flick, 2015; Saunders et al., 2015; Bryman, 2012).

#### **3.3.2 Justification for choosing the inductive approach**

The deductive approach was not appropriate to this research which focussed on generating a context specific theory and model. The research was therefore consistent with the inductive approach as underpinned by the philosophical perspectives discussed above.

Qualitative research reflected the inductive approach because the data collected meant that issues could be investigated from perspectives specific to the research context (Easterby-Smith et al., 2018; Saunders et al., 2015). The inductive approach to qualitative research being based on in-depth interviews was consistent with grounded theory (Creswell, 2014; Patton, 2014; Crotty, 1998; Strauss and Corbin, 1998). The inductive approach did not require random sampling or statistical testing of results because participants were selected for their ability to contribute relevant information. That meant that theory development was focussed on the specific research context. Consequently, the generalisability of results to different contexts could not be claimed (Saunders et al., 2015). The inductive approach was appropriate to this research because it was intended to develop a context specific conceptual theory and model for the evaluation of training within the textile industry of Bangladesh.

The final reason for choosing the inductive approach was that it aligned with the nature of the research. The inductive approach aimed to condense the raw data into a summary format, then develop connections between the research findings and the research objectives. Consequently, it allowed the development of a theory that reflected the underlying experience, processes and perceptions obtained from both the context and literature (Creswell, 2014; Patton, 2014; Bryman, 2012).

### **3.3.3 Quantitative research, qualitative research and mixed methods**

The main research approaches of qualitative, quantitative and mixed methods research will be briefly reviewed below, followed by a justification of the methodology adopted (based on Maxwell, 2013). Quantitative research was based on the positivist paradigm and was deductive because the results were usually based on quantitative data subjected to statistical tests to establish correlation based proof and hence allow generalisability to be claimed for the results (Saunders et al., 2015; Silverman, 2013; Sarantakos, 2012; May, 2011).

Qualitative research was based on the social constructivist paradigm, the main purpose being to understand the meaning of social issues within their context (Flick, 2015; Creswell, 2014; Wiles et al., 2011). It sought to investigate how each participant interpreted the reality created by their unique experience (Silverman, 2013; Bryman, 2012). Qualitative research required an inductive approach which produced a theory that was relevant only to the research context that generated it (Saunders et al., 2015; Charmaz, 2014; Zhang and Creswell, 2013; Creswell, 2012; Wiles et al., 2011; Coffey and Atkinson, 1996). The differences between qualitative research and quantitative research are summarised in table 3.1.

The mixed methods approach was associated with the combination of qualitative and quantitative data within a research project (Creswell, 2014; Bowers et al., 2013; Zhang and

Creswell, 2013; Wisdom et al., 2012). Research using the mixed methods approach collected both qualitative and quantitative data based on a distinct research design, philosophical assumptions and theoretical framework. It used both inductive and deductive reasoning to draw conclusions (Saunders et al., 2015; Zhang and Creswell, 2013; Sarantakos, 2012).

Table 3.1: The differences between a quantitative research and qualitative research approach

	<b>Quantitative research approach</b>	<b>Qualitative research approach</b>
General framework	Seeks to confirm hypothesis about phenomena.	Seeks to explore phenomena.
Analytical objective	To quantify variation on a continuum (e.g. height in human beings) rather than in discrete units or categories. To predict casual relationships between two variables. To describe the characteristics of a population.	To describe variation in a phenomenon. To describe and explain relationships between variables. To describe individual experience and group norms.
Question format	Closed	Open ended
Data format	Numerical	Textual
Flexibility	Study design is subject to statistical assumptions and conditions. Participant responses do not impact on subsequent questions asked.	Study design is iterative. Participant responses impact on subsequent questions asked as leads that emerge in each answer provided are followed.
Methodology used	Experimental research or case study. Experimental research is the most common method used in quantitative research and is based on the positivist paradigm (Saunders et al., 2015). Experimental research includes a hypothesis and variables that can be measured, calculated and compared. Most importantly, experimental research is completed in a controlled environment (Saunders et al., 2015; May, 2011). This is referred to a deductive research method (Saunders et al., 2015).	Grounded theory, ethnography, (Creswell, 2014; Crotty, 1998), phenomenological research, case study (Crotty, 1998). Grounded theory research is the most common method used in qualitative research (Creswell, 2014; Crotty, 1998; Strauss and Corbin, 1998). It is consistent with constructivist epistemology and relativist ontology. Its focus on the phenomena under study and recognising that both data and analysis is created from shared experiences and relationships between participants and other sources (Crotty, 1998). Grounded theory methodology is closely aligned with the interpretive view of qualitative research and inductive approach (Creswell, 2014). The interpretivist view of qualitative research seeks to develop a theory from the active participation between researcher and participants (Charmaz, 2006).
Research Methods	Highly structured methods, such as, questionnaire, survey and structured observation (Creswell, 2003; Crotty, 1998).	Semi-structured methods, such as, in-depth interview, focus groups and participant observation (Creswell, 2003; Crotty, 1998; Strauss and Corbin, 1998).

Source: Mack et al. (2005)



### **3.3.4 Justification for a qualitative research approach**

The philosophical assumptions about the nature of reality discussed earlier were supportive of the choice of methodology for this research. Thereafter, a rigorous research approach was required that emphasised the validity of the research findings. That required the research approach to be justified by appropriate ontological, epistemological and methodological underpinning (Tuli, 2010). The epistemological position of constructionist and theoretical position of interpretivist (discussed earlier) were adopted because they were appropriate to the aim and objectives, which in turn supported qualitative research.

Qualitative research was appropriate for obtaining participant thoughts about the critical features of a given situation (Creswell, 2014; Denzin and Lincoln, 2011; Lincoln and Guba, 2005). Reasons that made it an appropriate choice for the current research. The adoption of an inductive approach and qualitative research based on in-depth interviews was consistent with grounded theory. The data collection method adopted involved interviews with respondents with direct experience of training evaluation in the research context which allowed the construction of context specific outcomes (Creswell, 2014; Patton, 2014; Crotty, 1998; Strauss and Corbin, 1998). The data collection procedures for the research were designed to be sensitive to, and tease out, the multiple meanings and realities held by participants from the research context about training evaluation. Qualitative research was adopted because it offered the most relevant research approach (supported by appropriate ontological and epistemological underpinning) through which to better understand the phenomenon in the specific research context (Denzin and Lincoln, 2011; Lincoln et al., 2011; Charmaz, 2006).

### **3.4 Framework for the research design**

This section focussed on the establishment of what research design was and when it would be used in the current research. Different views about when research design should occur in the research process existed (for example, Maxwell, 2015; Saunders et al., 2015; Tuli, 2010; Crotty, 1998) and the main two will be discussed below. According to Saunders et al. (2015), research design consisted of 6 stages (or layers), referred to as the research onion (figure 3.1), the stages were: philosophies, approaches, strategies, choices, time horizons, techniques and procedures. According to Saunders et al. (2015), the first layer in the research onion involved defining the research philosophy (epistemological and theoretical perspectives) which provided the basis for the selection of either an inductive or deductive research approach—the second layer. The research strategy was the third decision layer which required choices that needed to be consistent with decisions taken in the previous layers. The options available included experiment, action research and grounded

theory etc. At the fourth layer the choices were the mono, mixed or multi-methods of research approach. The fifth layer identified the time horizon to be adopted. The options being either longitudinal or a single point in time. Finally, the sixth layer was about which techniques and procedures to adopt for data collection and analysis (Saunders et al., 2015).

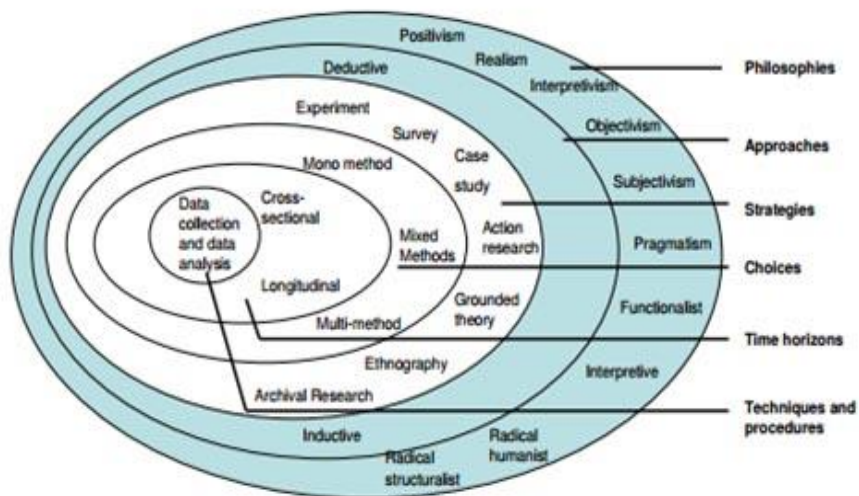


Figure 3.1: The research onion, Saunders et al. (2015)

Crotty (1998) offered a simpler research design model that consisted of four elements, epistemology, theoretical perspective, methodology and methods (figure 3.2). Unlike the Saunders research onion, epistemology and theoretical perspectives were not combined in Crotty’s research design. Crotty (1998, p.10) argued that ontology and epistemology were mutually dependent although distinct when he said, “to talk about the construction of meaning [epistemology] is to talk of the construction of a meaningful reality [ontology].”

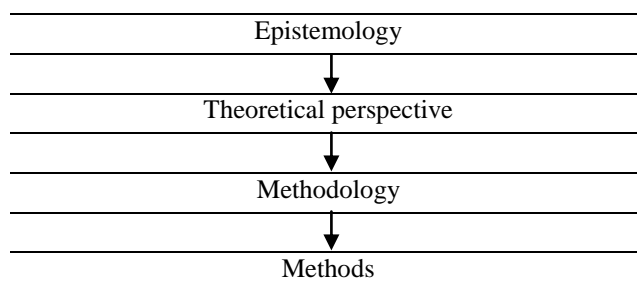
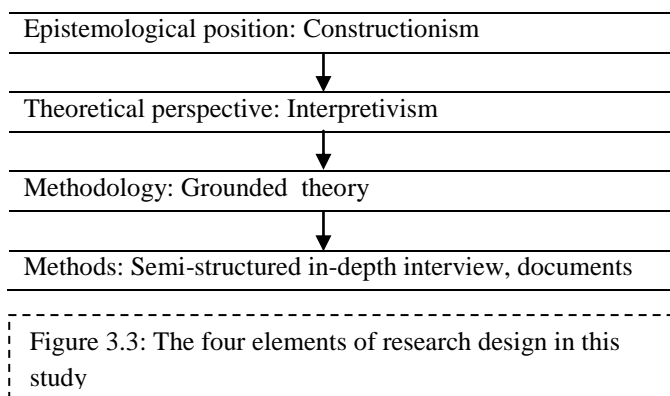


Figure 3.2: The four elements of research design, Crotty (1998)

The four elements of research design proposed by Crotty (1998) were adopted as the design framework for this study. That was because Crotty’s research design offered a model that was consistent with the aim and objectives of the current research and was a comprehensive, although simpler, representation of research design than that offered by Saunders et al. (2015). In addition, it reflected the philosophical assumptions for the research, which in turn made it easier to identify and justify an appropriate epistemology,

theoretical perspective, methodology and methods. The use of Crotty’s model for the type of research proposed was also supported by Denzin and Lincoln (2011) and Tuli (2010) who suggested that it maintained research rigour. The Crotty research design framework applied to the current research indicated that the epistemological position (constructivism) and theoretical perspective (interpretive) was consistent with the grounded theory methodology adopted (figure 3.3). The choice of grounded theory methodology subsequently informed the choice of in-depth interviews as the research method to be employed, again consistent with the Crotty model.



The nature of the data needed to achieve the research aim of developing a context specific theory and model for the evaluation of training was rich and deep. Consequently, in addition to the Crotty (1998) research design framework, the contextual factors influencing research design model developed by Maxwell (1998) was integrated into the research design (figure 3.4). In the Maxwell model, the research questions formed the central focus, surrounded by the four main research factors as shown in figure 3.4. Referred to as the components of the interactive model they reflected the goals, conceptual framework, validity and research methods relevant to the research questions in qualitative research designs (Maxwell, 2013; Lincoln et al., 2011; Guba, 1990).

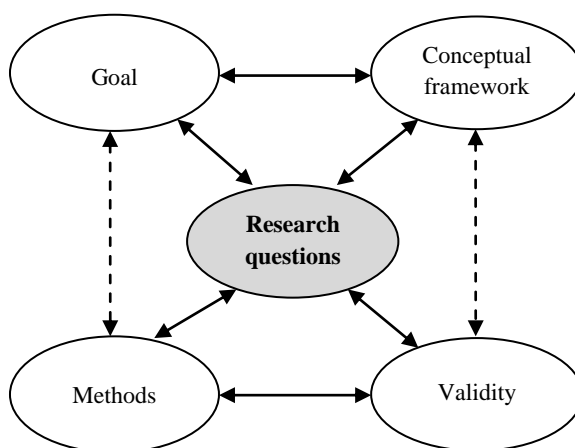


Figure 3.4: Components of the interactive model, Maxwell (1998)

Maxwell (2013) argued that the goals, research questions and conceptual framework elements in figure 3.4 (the upper triangle) were closely integrated with each other in the research process. That was evident in the current research as Maxwell's goals represented the aim and objectives as the outcome of the research (Maxwell, 2013). The goal of the current research was to review existing theories of training evaluation to identify issues that provided research opportunities specific to the context. Then to seek context specific participant views about that topic and, having brought the research data and existing literature together, develop a context specific theory and model. The conceptual framework in the Maxwell model could be explained either in narrative or graphical form and represented a synthesis of prior research findings, personal experience and literature in seeking to explain the phenomenon (Miles et al. 2015; Maxwell, 2013). Consequently, it mapped out the actions required in the course of the study based on researcher prior knowledge and observations during the research. The conceptual framework set the stage for the presentation of the research questions that drove the investigation being reported. In effect, the research attempted to answer questions that had not been answered previously and by doing so add to existing knowledge.

In the lower triangle of the model (figure 3.4), the methods, validity and research questions were also closely integrated with each other in the research process. The methods element was used to identify how the research questions would be operationalised as questions to be asked during interviews. That contributed to research validity through the development of (through the chain of evidence established) a theory of training programme evaluation that originated from, and was specific to, the context of the textile industry in Bangladesh. For example, soon after each interview respondent answers were quickly transcribed and cross-checked against the field notes and audio recordings. Also, the Corbin and Strauss (2015) grounded theory data analysis phases were strictly followed, e.g. open coding, followed by axial coding, and then selective coding. Plus, continual comparison of emergent data with relevant literature was undertaken during the analysis process.

Surrounding the five central components forming the core of the model Maxwell identified more specific contextual factors that lay behind and supported them. These also influenced the design of this research. The full model is illustrated as figure 3.5. Not all the contextual factors illustrated in figure 3.5 were relevant to the current research (thought experiments, for example), but the relevant components are discussed at appropriate points in the thesis. For example, research paradigm represented the epistemological, theoretical, methodological and research method perspectives of the research discussed in this chapter. Several writers (for example, Maxwell, 2013; Cohen et al., 2007; Richie and Lewis, 2003; Crotty, 1998;

Strauss and Corbin, 1998) provided guidance on research paradigm choices which was followed in this research and contributed to research validity and underpinned the research design and execution.

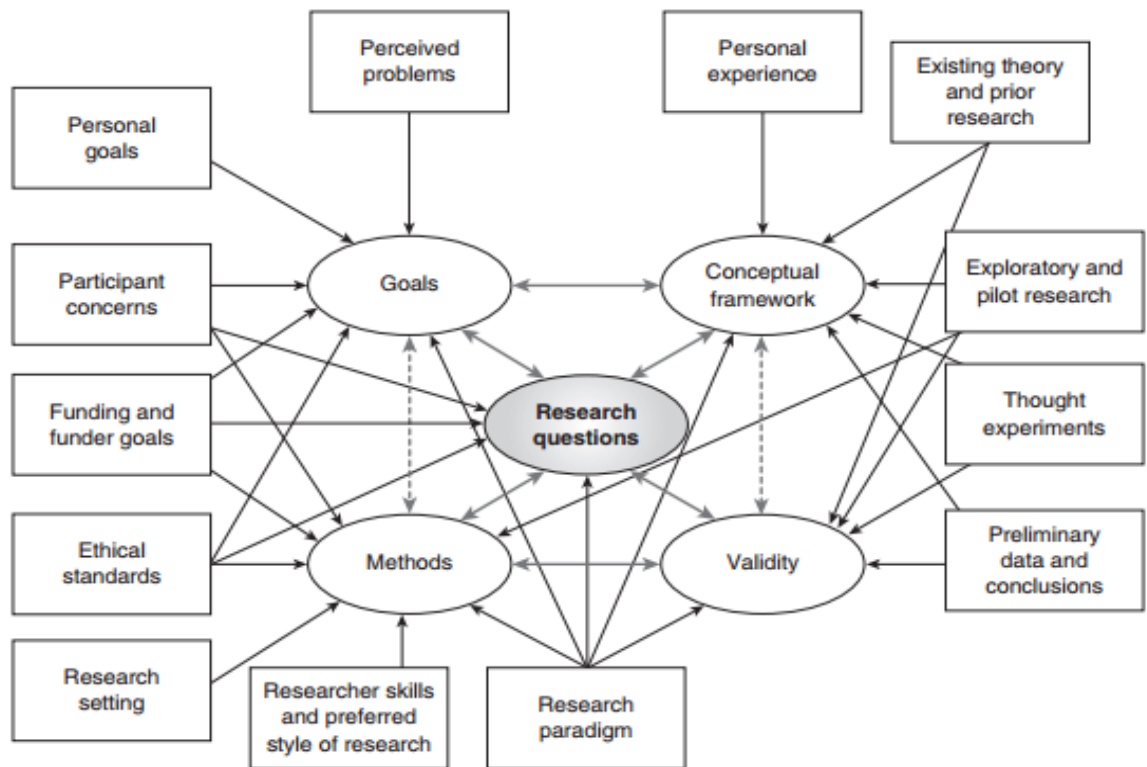


Figure 3.5: Contextual factors influencing research design, Maxwell (1998)

### 3.5 Research methodology: Grounded theory methodology justification

Crotty (1998, p.3) defined research methodology as “the strategy, plan of action, process or design, lying behind the choice and use of particular research methods and linking the choice and use of methods to the desired outcomes.” McCallin (2003) said that since grounded theory first appeared in 1967 three main versions had emerged. They were Straussian grounded theory (Strauss and Corbin, 1998), classical (Glaserian) grounded theory (Glaser, 2001), and constructivist grounded theory (Charmaz, 2006) (section 1.6).

Grounded theory methodology was chosen because it aligned with the philosophical position and epistemological stance of the research, along with its aim and objectives (section 3.2.2 and its subsections). That methodology offered a distinct philosophical positioning and theoretical underpinning (Becker, 1993) and made the research strategy unique as a way of identifying appropriate empirical data through which to derive a theory (Wimpenny and Gass, 2000). It also provided the most suitable means through which to generate theory based on an inductive research approach (Corbin and Strauss, 2015; Creswell, 2014; Becker, 1993). It was widely used and provided a dynamic tool through which to deliver understanding and insight into a given situation (Denzin and Lincoln,

2011; Payne, 2007; Suddaby, 2006). It provided the most appropriate theoretical perspective for the current research because it allowed the phenomenon being investigated to be understood through interaction between researcher and participants (Corbin and Strauss, 2015; Creswell, 2012; Charmaz, 2006).

The research adopted the Straussian version of grounded theory (Strauss and Corbin, 1998) which advocated an early, limited review of literature to identify research problems and the overall research question, which led to the formulation of the aim and objectives for the research. The other advantage was that it offered practices and principles as flexible guidelines rather than rigid rules and requirements to be applied in understanding the various realities found in the research context (Charmaz, 2006, updated 2014). As a result, the research adopted the Charmaz (2014) and Strauss and Corbin (1998) data analysis techniques to develop a context specific theory and model of training evaluation grounded on participant understandings. That allowed the researcher and participants to jointly construct the meaning of training evaluation within the research context in a way that was consistent with the philosophical underpinning.

### **3.6 Grounded theory data collection and analysis**

Straussian grounded theory dictated an iterative process involving data collection, coding, categorising, making comparisons between categories and theoretical sampling until theoretical saturation was achieved (Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998). Data analysis continued until theoretical saturation was reached, meaning that no new codes, categories, properties, dimensions, relationships, actions/ interactions or consequences were identified (Corbin and Strauss, 2015). The research data was iteratively analysed during the data collection phase and consequently the context specific theory emerged progressively. That iterative process continued until the final version of the theory emerged (following the above sources). During data analysis the emerging theory was compared with existing literature relating to training evaluation in order to locate the findings within existing knowledge (chapters 4 and 5).

Figure 3.6 shows that interview data was transcribed for subsequent analysis. The iterative process of analysis began with open coding of the original interview data to develop codes. Subcategories and categories were identified during open coding through the following techniques, initial coding, in vivo coding, process coding, descriptive coding, jotting down and analytic memos (subsection 3.6.3.1). That was followed by axial coding which established the relationships between categories and subcategories (classified as the properties and dimensions of a category) through analytic memos, a coding paradigm and

the conditional relationship guide (subsection 3.6.3.2). That led to selective coding which identified the core category and integrated all categories with it and allowed the development of the context specific theory. That was achieved through the use of analytic memos, a paradigm model and the reflective coding matrix (subsection 3.6.3.3). That iterative process continued until theoretical saturation was achieved. At the point of theoretical saturation, all the data was available and analysed allowing the development of the emergent theory (as guided by Strauss and Corbin, 1998).

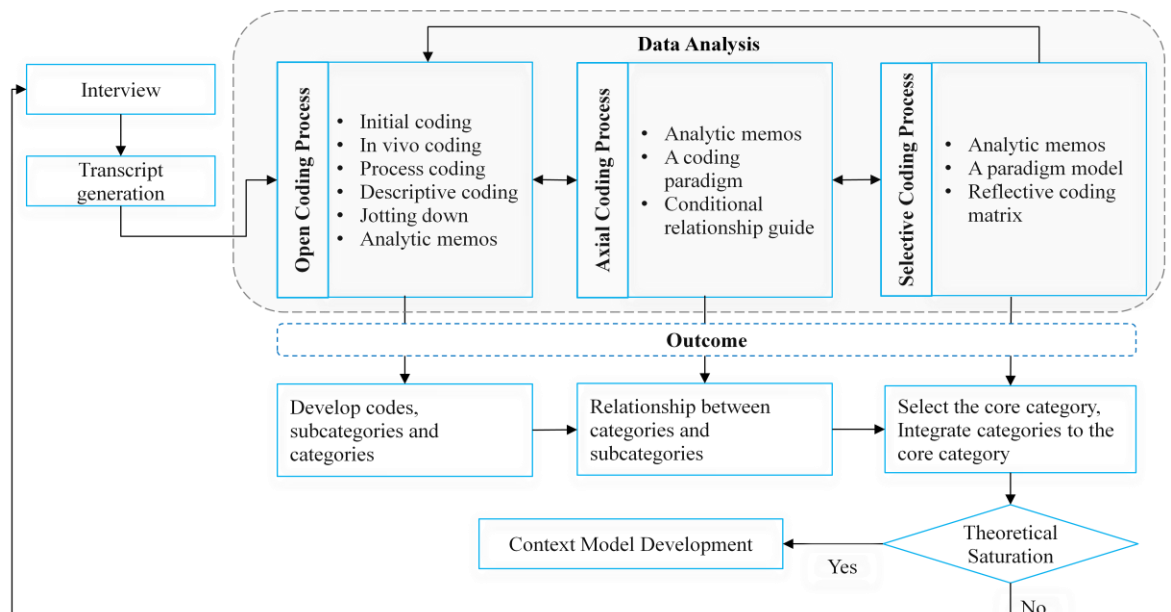


Figure 3.6: The iterative data analysis process

### 3.6.1 Theoretical sampling, sample criterion and sample size

Non-probability sampling was used, with the sample size unknown at the beginning of the research (following Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998). Purposive sampling was adopted at the outset of the research and became theoretical sampling when respondents were sought who could offer specific insights useful to the development of the research (following Miles et al., 2015; Cutcliffe, 2000; Strauss and Corbin, 1998). Theoretical sampling continued until theoretical saturation was achieved. The sampling process and number of interviews was therefore guided by on-going theory development during the constant comparison between categories (section 3.6.3 and its subsections and section 3.6.4).

Respondent selection was guided by the requirements of the research. Participants were selected based on their experience and knowledge relevant to the research topic and who were willing to be interviewed. Selection was based on the following criteria: participants had to work in a company in the research context; work in a human resource development

(HRD) department, training and development (T&D) department or production department; they also had to have experience, knowledge, or direct involvement in training provision and/or its evaluation.

Based on that selection criteria, mid and top level managers were recruited as it was they who were most involved in the commissioning of training, the design and delivery of it, or they held responsibility for ensuring that the outcomes from training were transferred to the workplace. Therefore, such individuals had the personal, professional and organisational interest in knowing company practice, the achievement of the best outcomes from training and its effective evaluation. Managerial activities associated with training which justified selection for interview included responsibility or involvement in any of the following: skill development for employees, career development and promotion, performance evaluation, interpersonal and group communication improvement programmes, organisational performance improvement programmes, the introduction of high technology production machinery and computer systems. An approach supported by Miles et al. (2015) and Black (2010) who suggested that participants should be identified and selected because they had the most appropriate characteristics within the population of interest to the research. Abdullah et al. (2011) suggested that managers in Bangladesh were generally taskmasters, very keen to make decisions, communicate effectively with individuals and global business partners within a cross-cultural environment. Zhangwen and Hoque (2017) stated that in organisations where managers were taskmasters rather than facilitators, employees lived in fear and distrusted management. Consequently, employees managed by taskmasters were not involved in decisions about, or the direction of, organisational goals, they did not understand the implications of their tasks, were unlikely to be motivated or involved in the development and delivery of training. More importantly, Abdullah et al. (2011) suggested that high power distance and centralised authority was the norm in Bangladeshi workplaces. That would be typified mean that employees were heavily dependent on managers or power holders to give instructions. Plus, employees were not generally encouraged to show initiative or allowed to participate in decision making, planning and implementation processes. Finally, at a practical level, managers had the greatest knowledge and experience of training and its evaluation in their normal duties, meaning that they were best placed to provide meaningful information and provide insights into given situations. Factory and technical level employees were deliberately excluded from this preliminary investigation because they would be likely to have different perspectives on training and to include them would potentially complicate (and possibly confuse) what was designed to be exploratory research. However, subsequent research, based on these findings, would be an appropriate



opportunity to integrate their perspectives into the development the emergent theory and model.

At the outset of the research a sample of 50 respondents was thought to be the approximate number required, but interviews stopped after 45 when theoretical saturation was achieved. 42 of the participants interviewed were from 30 different textile companies in Bangladesh and 3 from different textile industry training providers. Company names were replaced with code numbers, A1 to A33 and participant names were replaced with code numbers, C1 to C45 (appendix A). The textile companies and training institutes were chosen based on several criteria including company size (medium and large), known to make training provision and ease of researcher access (achieved through knowledge of the industry and the local and organisational culture). Additionally, organisations were chosen based on their willingness to participate. Crouch and Mckenzie (2006) and Ritchie and Lewis (2003) suggested that the appropriate sample size for a qualitative study was usually smaller (frequently less than 50 samples) than required for quantitative studies because the frequency of particular responses was less significant in qualitative research. They argued that diminishing returns applied in a qualitative sample as data volume did not necessarily reflect additional or improved outcomes. That was because a single piece of data ensured that it became meaningful in qualitative analysis. Qualitative research was concerned with contextual meaning and not generalisability.

To better understand the 45 participants, basic biographical data was collected (appendix B) which included: academic qualifications, level of seniority and their department. During interviews all respondents confirmed that they had experience and knowledge of training provision and how it was evaluated in their organisations.

### **3.6.2 Data sources**

According to Corbin and Strauss (2015) and Charmaz (2014), grounded theory methodology allowed data to be shaped, reshaped and refined in order to understand and interpret social life in relation to the specific research objectives. The methodology also encouraged flexibility, thereby allowing the data to be collected through several different sources. For example, primary data through in-depth interviews (subsection 3.6.2.1) and secondary data through documentation (subsection 3.6.2.2). The research followed Strauss and Corbin (1998) in that primary data was emphasised more than secondary data. An approach supported by Easterby-Smith et al. (2018) and Ritchie and Lewis (2003) who argued that for research focussed on a defined problem, primary data provided more realistic, reliable and impartial information than that from secondary sources. Secondary data was used in the

research to support and qualify primary data, which enriched the analysis and contributed to the development of context meaningful conclusions (subsection 3.6.2.2).

### **3.6.2.1 Interviews**

Initial contact was made with potential respondents either by phone or email in order to seek their agreement to take part and to arrange an appropriate date and time for the interview. The interview session typically lasted between 60 and 90 minutes. The opportunity to contact participants after their interview, were it necessary to clarify or seek elaboration of an answer, was established during each interview. An option used with four participants.

The primary data for the research was collected through in-depth interviews which comprised a mixture of open-ended and semi-structured questions (appendix C). In-depth interviews allowed participant experience and views on training, its evaluation and related issues to be explored (chapter 4). The use of in-depth interviews represented a rigorous primary data source which facilitated the discovery of meaningful insights through answers to questions about why and how in relation to the research topic (based on Easterby-Smith et al., 2018; Charmaz, 2014; Ritchie and Lewis, 2003; Gillham, 2000). Creswell (2014) and Ritchie and Lewis (2003) explained that open-ended questions imposed no restrictions on the content and manner of respondent answers, thereby encouraging flexibility and freedom in asking questions and providing responses. According to Charmaz (2014), semi-structured interviews collected and focused on qualitative textual data that uncovered rich, descriptive data on the personal experiences of participants.

Data collected during the semi-structured interviews in the current research involved questions that moved from general topics to more specific ones as each interview progressed. Questions were initially open-ended but became more directive (semi-structured) based on the interview goal, concepts already established and participant responses to the previous questions. Themes and topics formed the issues about which information was sought and used to create the interview guide which directed subsequent interviews toward the capture of the information required. For example, the code trainee reaction was identified from participant C5's description of training evaluation in their organisation using an analytic memo. Table 4.2 illustrates how the operational definition of trainee reaction was determined through an analytic memo. From participant C5's answers the semi-structured question: "Can you tell me how you obtained their reactions?" was identified and subsequently asked. Semi-structured questions were added to the interview guide based on the data collected during each interview, the updated guide being used to

inform subsequent interviews. Consequently, over the course of the interview schedule, the questions became progressively more structured as a result of the dynamic interplay between data collection and data analysis (section 3.6.3 and its subsections). A process that continued until data saturation was achieved (based on Corbin and Strauss, 2015; Charmaz, 2014; Payne, 2007; Strauss and Corbin, 1998).

Interviews began on 2<sup>nd</sup> of March 2015 and finished on 30<sup>th</sup> May 2015. A range of materials were used during interviews and included the interview schedule, respondent consent form, interview guide, audio recording device, notepaper, pen, pencil, handbook, file for records and a laptop computer. The consent form, which explained the purpose of the research project, was provided to participants at the beginning of the interview (appendix D). Time was allowed before each interview for participants to read, have any terms or sentences explained and sign the consent form. Some participants chose not to read the consent form and so it was read to them. Participants were asked whether they understood the purpose of the study and interview and were informed of their right to withdraw or refuse to answer any question. For all 45 interviewees, their consent was obtained by signature on the consent form. Two participants, C4 and C13, were unable to complete the full interview due to work commitments. However, that had no significant effect on either the volume of data collected or the range of points that were available from their contributions.

In relation to research ethics, permission to record interviews (by taking notes and audio recording) was obtained. The confidentiality of responses was assured in order to obtain the maximum level of trust in the research process. Confidentiality was protected because data attributable to any individual would not be seen, or disclosed, to anyone else. When interviews began participants were encouraged to spontaneously and freely answer questions about their experience and views of training provision and its evaluation. If a participant did not understand a question, then it was re-phrased to clarify or improve understanding so that they could respond. All potential participants were willing and interested in being interviewed and they answered all questions asked. Participants guided the flow and direction of the interview process through the answers that they provided which meant that they were able to talk about the phenomena in ways important to them (guided by Charmaz, 2014; Strauss and Corbin, 1998).

Interviews were carried out in the local language and then translated into English immediately after the interview was completed. However, participants sometimes spoke in English or used English words or phrases as part of their answers. Managers in the textile industry in Bangladesh frequently used business English in their work because of the

international nature of the industry. Plus, occasionally no equivalent word or phrase existed in the local language. For example, the six categories of trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity that emerged during the analysis were common English terms used by respondents. That made the transcription of interview data easier and made the identification of appropriate categories more accurate. The consent form, questionnaire and all secondary documents were already in English. However, these were also translated into the local language, in case if anyone needed it to be so.

During each interview, answers were written down and tape recorded. The interview recording, written answers plus field notes were used as the comprehensive interview record for primary data capture. The interview audio recording allowed the researcher to concentrate on listening to answers in order to understand what was said and identify follow-up questions. The written interview data was transcribed into a Microsoft Word document, which when cross-checked against the audio recordings and field notes became the primary source for subsequent data analysis. The use of standard computer software enabled the effective management of qualitative data through the protocols that guided the systematic development of transcripts, as suggested by McLellan et al. (2003). It took approximately 4 hours to transcribe each interview. The audio recordings were used if the field or interview notes were unclear, if elaboration was needed and to allow the notes to be cross-checked, all to ensure that the full meaning of answers had been captured (following Charmaz, 2006). Audio recording allowed the identification, analysis and interpretation of the actual words used by interviewees, which enhanced data quality and analysis in ways consistent with grounded theory (Charmaz, 2014). Interview recordings were played several times, and the field notes were also consulted during the interview transcription process. Each transcribed interview was also read several times to ensure the accuracy of transcription. Finally, the transcripts were again checked against the recordings and then carefully analysed using the designated coding process (section 3.6.3 and its subsections). This allowed the process of theoretical sampling to be applied successfully and increased the efficiency and accuracy of the data capture process. A sample of an interview transcript is included as appendix E.

### **3.6.2.2 Documentation**

Appropriate company annual reports and other documents were used as secondary data to understand the environment in which the company operated, the culture and nature of its business and particularly training and its evaluation. Other documentary sources consulted included government reports relating to the textile industry, for example, statistics on

training activity. Records from other relevant organisations regarding training programme design, provision and outcomes were also reviewed where available and appropriate. Company training policies and records of training provided (e.g. date, volume and types of training provided, the number of people trained, training purpose and who carried out the training) were also reviewed where available. The annual reviews from training departments or providers relating to the assessment of training carried out during the year were also consulted where available.

Following the grounded theory requirement, the research used secondary data (documentation and company data) to better understand and validate the interview data (Corbin and Strauss, 2015; Charmaz, 2006; McLellan et al., 2003; Glaser, 2001; Strauss and Corbin, 1998). Consequently, documents were not integrated into the coding process to identify categories but were referred to where appropriate in the analysis (chapter 4, sections 4.3.1, 4.3.3, 4.3.4, 4.6.1, 4.6.2, 4.6.3, 4.6.4 and 4.6.5). For example, training evaluation sheets were collected from company A4 and used to better understand and validate the categories that emerged from interviews in that company (appendix F) which informed the discussion in section 4.6.1. Secondary data also deepened the interpretation of identified categories relating to how organisations undertook (or might undertake) training evaluation. For example, participant C34 talked about how employee commitment could be assessed and suggested that a commitment survey could be an effective way to measure it. Subsequently, an example of commitment survey documents was obtained from company A4 (appendix G) which informed the discussion in section 4.6.5.

### **3.6.3 Data analysis**

Grounded theory analysis identified and articulated categories of meaning and the connections within and between them that were active within a specific research context. The emergent understanding from that analysis created a context specific theory about the topic of interest (Miles et al., 2015). Analysis began early in the data collection phase of the research and continued until the final conclusions were achieved (following Corbin and Strauss, 2015). Grounded theory data analysis depends heavily on the researcher's analytical ability, skill and creativity in the development of an emergent theory (Corbin and Strauss, 2015; Saldana, 2015; Charmaz, 2014). According to Saldana (2015) and Strauss and Corbin (1998), coding was an essential step in data analysis (as an iterative process) in which data was broken down, conceptualised and categorised several times to allow the emergence of a context specific theory. That resulted in a constant comparative analysis being carried out throughout the data collection and analysis process. After each interview, data analysis involved data transcription, the identification of codes, subcategories

and categories through open coding (subsection 3.6.3.1). That was followed by the identification and clarification of relationships between categories and subcategories through axial coding (subsection 3.6.3.2). That was followed by the selective coding process which allowed the identification of the core category, which then allowed all identified categories to be integrated with it. At that stage the development of the emergent theory could be completed (subsection 3.6.3.3).

All interview transcripts were transferred to a Microsoft Word document and coding was undertaken manually. That allowed data analysis to be undertaken intuitively rather than through the automatic, algorithmic nature of computer software. Manual coding encouraged greater immersion in the data and its meaning (Saldana, 2015). According to Glaser (2001), manual coding allowed codes to be assigned to different categories simultaneously, producing greater consistency of code identification and assignment. Basit (2003) also suggested that it was more accurate than computer analysis because it avoided misinterpretation or mistakes, which helped to confirm the validity of the analysis. In addition, the volume of data captured was relatively small and was thus manageable, following the guidance offered by (Saldana, 2015; Gibbs, 2008; Bazeley, 2007; Basit, 2003).

### **3.6.3.1 Open coding to develop codes, subcategories and categories**

Open coding involved breaking down, examining, comparing, conceptualising and categorising data from which concepts/codes and categories were identified, and their properties and dimensions discovered (Charmaz, 2014). Several types of coding were used during open coding. They were initial coding, in vivo coding, process coding and descriptive coding, following the guidance of Saldana (2015) and Strauss and Corbin (1998). After each interview during open coding preliminary jottings and memos were also made (chapter 4, tables 4.6 and 4.18). Open coding was repeated several times, during which the number of codes was revised and reduced as the phenomenon being studied was better understood. Initially, 587 codes emerged (appendix H) which were then reorganised and reduced through a number of cycles of coding to 126 (appendix M). Each of the coding methods used is briefly described below.

Initial coding, also known as line by line coding, involved breaking data down into discrete parts, the close examination and comparison of each to identify similarities and differences between them (Corbin and Strauss, 2015). Each code represented a word or sentence which contained a meaningful idea. Codes that were found to be conceptually similar in nature or related in meaning were grouped together under one unifying concept, termed a category

(Strauss and Corbin, 1998). Initial coding allowed the careful comparison of new data with previously coded data and encouraged focus on emergent themes in words other than those used by respondents (Corbin and Strauss, 2015; Charmaz, 2014; Glaser, 2001). For example, codes were attached to almost every line in interview transcripts to capture what had been said (table 3.2). Initial coding helped with the creation of categories for each incident thereby ensuring that all phenomena were identified within the data.

Table 3.2: Illustration of the development of codes, subcategories and the category learning from respondent quotes

Case ID and Quote	Codes (Line by line coding)	Subcategories	Category
C2, Training can boost idea generation, knowledge and encourage the use of new knowledge in new situations. Managers should confirm that each trainee is using their new knowledge.	Understanding, Applying ideas, Applying ideas	Knowledge	Learning
C3, Employee judgemental and analytic abilities increase due to a training programme. You can say it is an alternative way to build up common sense. Obviously, a trainee gets additional knowledge to apply things differently in the future.	Evaluating ideas, Understanding, Applying ideas, Additional knowledge	Knowledge	
C5, A company attempts to assess what types of skills learners really gather in practice? Like technical skills or any other non-technical skills. For example, check the employee's ability to use information technology.	Perform technical task, Perform non-technical task, Perform technical task	Skills	Learning
C8, Because of training it gets easier for employees to use word processor software and organising, recording or documenting messages.	Perform technical task, Perform non-technical task	Skills	

In vivo coding produced a code which was the actual word or phrase used by interviewees as recorded in the interview data (Corbin and Strauss, 2015). In this process, codes were identified by single quotation marks. For example, respondent C12 reported that: *Apprentice training enables employees to learn the technical work and encourages employees to really feel confident in their work* (Code: 'learn the technical work' and Code: 'confident in their work'). The identification of quotes that became in vivo codes involved a line by line review of interview transcripts. The benefits of in vivo coding were that it could identify additional codes that might otherwise be missed during initial coding or it could be used in combination with other coding methods to identify additional codes, or refine previously identified codes (Saldana, 2015).

Process coding was used to search for actions or interactions taken in response to a situation or a phenomenon; as a consequence of actions; or as interactions between phenomena. Process coding was used for approximately every three to four respondent sentences. Process codes were gerund-based terms (e.g., verb + ‘ing’). For example, respondent C7 reported that: *If you arrange training activities within the organisation, surely it will enhance employee ability to perform their job*, (Code: enhancing work ability and Code: performing job).

Descriptive coding was used to summarise in a word or short phrase the basic topic of a passage of interview data, Wolcott (1994). Such words or phrases were most frequently expressed as a noun because they identified the topic or categories. It was essential groundwork during open coding and necessary before axial coding could be undertaken. An example of how descriptive codes were developed during the open coding process is shown in table 3.3.

Table 3.3: Illustration of descriptive coding from respondent quotes

Case ID and Quote	Descriptive codes
C10, We have got to understand that we are happy doing work in a group and therefore, we have a workshop room specifically to encourage effectively working together as a team.	Teamwork
C10, We need to identify the extent to which a trainee’s knowledge, skills and attitudes have improved as a result of training.	Learning

### 3.6.3.2 Axial coding to identify relationships between categories and their subcategories, and to identify the connections between categories

Axial coding involved data (categories and subcategories) being grouped together, sorted, synthesised and organised. That involved working with large amounts of data during the iterative process of reassembling and reorganising data that was fractured and coded during open coding (Charmaz, 2014; Creswell, 2014; Strauss and Corbin, 1998). Axial coding was repeated several times. During axial coding, data (categories and subcategories) were rearranged in new ways by making connections between categories and subcategories (referred to as the properties and dimensions of each category) and by identifying interconnections between categories, see appendix I (based on Strauss and Corbin, 1998). Axial coding also determined when theoretical saturation had been achieved. Axial coding iteratively explored the full range of material available, including interview transcripts, memos, diagrams, coding paradigm and conditional relationship guide. The coding paradigm and conditional relationship guide encouraged investigative questioning of the data already obtained and consequently validated the axial coding process.



According to Scott (2004), a conditional relationship guide should be used to identify and clarify the connections and relationships between categories and subcategories in terms of property and dimensional values. That was achieved by asking the questions: what, where, when, why, how and with what consequences? These investigative questions were used as follows to establish and verify the relationships (1) between categories and subcategories and (2) between subcategories as property and dimensional values:

1. “What is the code?” Using participant answers from the interviews helped avoid bias during the analysis process.
2. “When does the code occur?” Identified from participant answers during interviews.
3. “Where does the code occur?” Identified from participant answers during interviews.
4. “Why does the code occur?” Identified from participant answers during interviews.
5. “How does the code occur?” Identified from participant answers during interviews.
6. “With what consequences does the code occur?” Identified from participant answers during interviews.

Answers to the first four questions identified the contextual conditions and structures in which the phenomenon was embedded. The fifth question identified the actions and interactions between categories, including the notion of a dynamic process operating over time. The answer to the last question revealed the consequences of activities in the process. An example of axial coding using the conditional relationship guide is presented in table 3.4.

Table 3.4: The conditional relationship guide established and verified the relationship between the code applying ideas and knowledge as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Applying ideas	The process of applying knowledge in the workplace	During specific task, Performing job, Facing problems and other difficult situations, Work in apprenticeship, Workshop, Seminar	Inside the company, Induction training session, Workshop training session, Apprenticeship training session, Classroom training session	Attending training, Build up ideas, Work effectively in groups, Explain their thinking critically, Work in cooperation with others	Engaged in their work, Applying new ideas, Creating higher performance	Knowledge

The subcategories (properties and dimensions) were analysed to identify common themes and then grouped together under appropriate category titles. Section 4.3.2 provides an overview of how subcategories were grouped together. For example, participants talked about the properties (knowledge, skills and attitudes) which were also subsumed under the category, learning (table 3.5). Categories were elaborated, and diagrams integrated relevant categories with the intention of creating a substantive theory of action. That initiated the process of category development.

Table 3.5: Illustration of the hierarchical coding scheme for the category learning

<p><b>Category: Learning</b></p> <p><b>1. Subcategory (Property): Knowledge</b>  <b>Dimension:</b> Applying ideas  <b>Dimension:</b> Understanding  <b>Dimensions:</b> Evaluating ideas</p> <p><b>2. Subcategory (Property): Skills</b>  <b>Dimension:</b> Perform technical task  <b>Dimension:</b> Perform non-technical task</p> <p><b>3. Subcategory (Property): Attitudes</b>  <b>Dimension:</b> Self-efficacy  <b>Dimension:</b> Self-directed</p>
--

Corbin and Strauss (2015) argued that grounded theory required the use of a coding paradigm to identify categories in terms of their conditions (causal, contextual and intervening), action/interactions strategies/processes and consequences. That allowed the establishment of links between categories which defined the phenomenon, a process reflected in figure 3.7. The coding paradigm included as table 3.6 illustrated the process involved with the specific example of training need as the causal condition and provided appropriate examples of the contexts, processes and consequences. The use of the coding paradigm contributed to the identification of a theoretical explanation for the phenomenon under study (Strauss and Corbin, 1998).

Table 3.6: The coding paradigm used during axial coding based on Struass and Corbin (1998)

Components		Description	How to identify	Example of the categories
A	Causal condition	Events or incidents that lead to the occurrence of a phenomenon.	Identified by: when, while, since, because, due to, on account of.	Training needs assessment
B	Context	Set of properties and that pertain to a phenomenon and conditions within the strategies are taken.	Under the specific condition.....	Learning
C	Intervening condition	Broad and general condition bearing upon strategies.	Time, culture, economic and technological status, career, history and individual personality.	Contextual factors
D	Strategy/ process	Manage, handle, and carry out a phenomenon.	Action oriented verbs or participles.	Test
E	Consequence	Outcomes to a phenomenon.	Events or happenings, actual or potential.	Direct outcomes of a training programme

### 3.6.3.3 Selective coding to integrate categories with the core category and develop a theory

Selective coding identified the core category/central phenomenon. That allowed the development of the emergent theory by systematically relating the core category to all other categories, validating the relationships between categories, and identifying categories that needed further refinement and development (following Strauss and Corbin, 1998). The core category was formed (using the paradigm model) to provide an explanatory whole picture. Selective coding was repeated several times throughout the research until the final version of the theory emerged. It allowed a storyline (the core category) to be constructed for the research by relating it to all other categories through the use of the reflective coding matrix and coding paradigm (section 4.8).

Using grounded theory conventions, the reflective coding matrix built a training programme evaluation theory and associated model, both grounded in the research context. A paradigm model was developed using the coding paradigm and the reflective coding matrix to develop the emergent theory, validate the relationships between categories against data and elaborate, refine and develop categories as required in order to provide density to the theory (table 4.73 and figure 5.1). According to Strauss and Corbin (1998), the paradigm model linked categories, properties and core category in a set of relationships which described the phenomenon under study in terms of the causal, intervening and contextual conditions, action/interaction strategies/processes and their consequences. A simplified form of this model is shown in figure 3.7, with the key terms defined in the Glossary. In figure 3.7, every phenomenon was subject to a number of conditions (causal, contextual, intervening). Figure 3.7 indicated that under a specific set of conditions (causal, contexts, intervening),

strategies/processes were taken to manage, or handle, the phenomenon under study which had certain consequences. The connections and relationships reflect the inductive nature of the paradigm model.

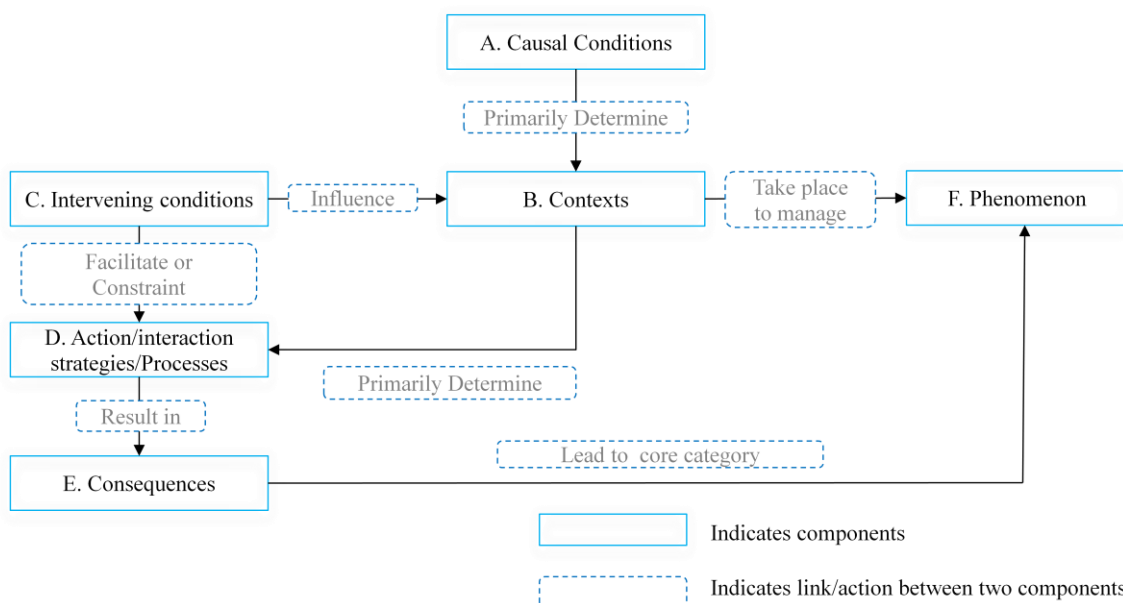


Figure 3.7: A paradigm model linking categories to the core category and develops theory

### 3.6.4 Constant comparative analysis

The research involved collecting data, coding, sorting into categories, gathering additional information and comparing new information with existing categories. A process referred to as the constant comparative method (Corbin and Strauss, 2015; Charmaz, 2014; Creswell, 2014). That process was used for four reasons. Firstly, to determine whether the empirical data collected supported the categories that had previously emerged. Secondly, it enabled the exploration of differences and similarities within the data already collected. Thirdly, it provided guidelines for the collection of additional data (Creswell, 2014) through which the number of codes was reduced as they were grouped together into meaningful categories (Glaser, 2001). Finally, by comparing each category with every other category similarities were found which formed the categories which ultimately led to the development of the emergent theory (Corbin and Struass, 2015; Saldana, 2015; Creswell, 2014; Glaser, 2001).

Constant comparison consisted of four stages, incidents to incidents, concepts/categories to more incidents, categories to categories (integrating categories and their properties) and outside comparison (for example, with existing literature) (following Saldana, 2015; Strauss and Corbin, 1998) (section 3.6.3 and its subsections). Incidents to incidents comparison took place during open coding so that similarities or differences between respondent comments could be identified (Saldana, 2015; Glaser, 2001; Straus and Corbin, 1998). The categories that emerged were compared with incidents identified in subsequent

interviews until data saturation was achieved. The categories to categories (integrating categories and their properties) and the categories to additional incidents comparison took place during axial coding using analytic memos (for example, table 4.40), diagrams, the conditional relationship guide (for example, table 4.38) and the coding paradigm (for example, table 4.65). Constant comparative analysis was intended to establish relationships between categories through analytic memos (for example, table 4.69) and the coding paradigm. Thereafter, the categories were compared with each other in order to generate the core category from which a theory could be derived using the reflective coding matrix and paradigm model. The categories were also constantly compared with the existing literature to facilitate theory development. For example, the category of employee commitment was compared with the existing literature related to its impact on individuals, groups, company performance and training outcomes (section 4.3.5).

### **3.6.5 Memo writing**

Memo writing enabled the analysis of data and codes throughout the research process (as guided by Corbin and Strauss, 2015; Saldana, 2015; Charmaz, 2014). It represented a crucial step between data collection and the creation of the emergent theory. Memo writing continued in parallel with data collection, note taking and coding. It involved creating a note about a hypothesis or theoretical proposition that related to a category, subcategory or property and particularly about the relationships between categories (based on Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998). Memo was essential in the analysis of data because they guided the identification of theoretical sampling parameters, assisted in the enrichment of data analysis and served as a guide for further data collection (Corbin and Strauss, 2015; Saldana, 2015; Charmaz, 2014; Glaser, 2001).

Different types of memos were used during the research, conceptual memos, research question memos, case-based memos, operational definition memos, theoretical memos, and network memos, all known as analytic memos (Saldana, 2015). Analytic memo writing sought to document and allow reflection on the coding process, code choice and how the process of inquiry was developing. That included reflection on the emergent patterns of category and subcategory and the meaning of codes and categories - all intended to lead towards the emergence of a theory (Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998). When categories or themes emerged, a note was made of them in an analytic memo to inform later analysis and to record thoughts on the meaning of that category. That provided a validity check on the thinking process through the capture of the ideas and reflections involved. Such reflections helped identify possible codes and the analytic properties of the descriptive codes (Corbin and Strauss, 2015; Saldana, 2015; Glaser, 1978).

The different types of analytic memos used during data analysis are discussed below.

Conceptual memos provided a place for recording and making comparisons between data and data, data and codes, codes and codes, codes and categories, with a view to finding differences and similarities. Conceptual memos were produced for the initial codes and categories developed from each interview (for example, table 4.51). Conceptual memos were also used to record thoughts on the meaning of codes, code choice and to keep notes about when and how codes occurred, how they changed and what their consequences were (for example, table 4.54). They also allowed reflection on the emergent categories, specifically how codes were tentatively allocated to categories and subcategories and to identify possible themes for a category.

Research question memos were written to record and encourage reflection about material relevant to the research questions. Thereby creating a formal record which contributed to the development of understanding and kept the research aligned with its objectives and aim. After each interview, a case-based memo was created reflecting what had been learned (example in appendix J). The case-based memo contained thoughts about interviewee knowledge or experiences and the researcher's reactions to that information.

The operational definition memos for codes and categories were written during data analysis by assembling relevant participant responses. Operational definition memos formed the amalgamation of individual answers provided by participants. For example, table 4.2 shows how such a memo was created to encourage reflection about the operational definition for the category trainee reaction.

Theoretical memos were written to record thoughts about each open code. Theoretical memos became progressively more detailed as the number of interviews increased along with the data available. The depth of reflections developed in them led to improved understanding of the categories and to an additional level of abstraction in the dimensions of the categories.

Networking memos were created to allow reflection about possible connections and flows among the codes, properties and categories. It represented a practical way of ensuring that thinking about how codes fitted together was articulated. Figure 4.22 provides an example that reflects the network relationship between categories. Those figures demonstrate probable hierarchical and chronological flows, plus the cause and effect relationships between categories.

### **3.7 Substantive theory**

According to Strauss and Corbin (1998), substantive theory provided a theoretical interpretation or explanation of a topic that emerged from conceptual categories grounded in the original data

collected. That grounding provided the flexibility and freedom to explore in depth a phenomenon in a specific context (Corbin and Strauss, 2015; Charmaz, 2014). Because grounded theory directed research to be related to and grounded in data collected from a specific context, the emergent theory generated was substantive in nature as it was focussed on particular issues in a specific setting (Charmaz, 2014; Strauss and Corbin, 1998). Connecting the results of a number of substantive grounded theories and conceptualising from those findings could lead to the development of a formal theory (Corbin and Strauss, 2015).

This research developed a substantive theory based on data collected by asking questions about what and why things happened in the way that they did within organisations in the research context. That focus on, and interpretation of, data collected and analysed from the specific context led to a context-based explanation of training and its evaluation which when integrated with existing literature led to the tentative development of an explanation in theoretical and practical terms. For this research that was the substantive theory of training evaluation specific to the textile industry in Bangladesh. However, that outcome did not provide an opportunity to generalise the results to other contexts or offer a formal theory.

### **3.8 Summary**

This chapter justified the ontological position and epistemological underpinning for the research which provided the basis of the identification and justification of the research approach, aim, methodology and methods. The chapter also explained the interpretive theoretical perspective adopted based on the belief that multiple realities of meaning were active in the research context. The chapter explained and justified grounded theory as the appropriate methodology and the justification for in-depth interviews as the most appropriate data collection method. The data collection and analysis processes were also explained and justified based on the view that the emerging theory offered an inductive approach to the identification of an appropriate and context specific model for training evaluation within the textile industry in Bangladesh (developed in chapters 4 and 5).

The encouragement for a theory to emerge through data collection and analysis represented the intention of grounded theory methodology and was the reason for it being the appropriate choice for this research. The development of the emergent theory was based on an interpretation of participant perceptions and experiences, filtered through researcher insights and relevant literature. Consequently, the grounded theory methodology was adopted in conjunction with the guidelines for the analysis of data of Strauss and Corbin's

(1998) coding paradigm and Scott's (2004) conditional relationship guide and reflective coding matrix. That allowed the confirmation of research observations through other data sources, making it a robust research project. The following chapter presents the findings and analysis that were generated from the research through the underpinning and processes explained and justified in this chapter.



## **Chapter 4: Presentation of findings**

### **4.1 Introduction**

This chapter presents the findings from the fieldwork phase of the research and identifies the categories that emerged from the interview data through the coding process. This chapter presents the primary data used at each of the coding stages and the secondary (company) data that was used to support, validate and qualify the primary data. Analysis began early in the data collection phase and directed subsequent data collection, which led to the identification of additional codes and the refinement of codes already identified (section 3.6.3). The codes that emerged during open coding that later became categories during axial coding were identified using coding paradigms and the conditional relationship guide (section 3.6.3). This chapter explains how the categories were classified and interpreted, providing examples of how the categories and subcategories emerged. It also makes explicit the comparisons and connections between the categories that were integrated into the core category. The last section of this chapter presents an explanation of how the core category emerged and how all the categories and core category were integrated using the reflective coding matrix and paradigm model.

### **4.2 Data presentation and analysis**

Each category identified during the coding process encompassed properties and dimensions which will be defined, classified, discussed and illustrated in sections 4.3, 4.4, 4.5 and 4.6. The iterative analysis process was fully explained in section 3.6.3 and so will only be summarised here. Analysis involved reading interview transcripts several times leading to the creation of new categories or the amendment of existing ones. For example, where two categories emerged that explained the same phenomenon, the category that best encapsulated the collective meaning was retained and the other rejected. Emerging data that was contradictory or inconsistent with a previously identified category did not automatically invalidate it but provided the opportunity to revise it if appropriate.

Table 4.1 shows the three stages of data analysis: open coding, axial coding and selective coding. A total of 587 codes initially emerged through the open coding process. From the initial 587 codes 15 categories with 126 subcategories emerged through axial coding. The subcategories formed the properties and dimensions of the categories and were identified using analytic memos, the conditional relationship guide and the coding paradigm. The 15 categories were further analysed through selective coding to identify the single core category which encapsulated the research phenomenon. 4 consequences emerged in addition to the 15 categories (section 4.8). Selective coding involved the use of analytic memos, the coding

paradigm model and the reflective coding matrix. The 15 categories comprised six categories that related to the contexts of training activity, six categories that related to processes for the evaluation of training activity, two categories that related to causal conditions and one category related to intervening conditions (table 4.1 and sections 4.3, 4.4, 4.5, 4.6, 4.7 and 4.8).

Table 4.1: Analysis process and outcomes

<b>Analysis process</b>	<b>Methods used in the process</b>	<b>Codes and categories that emerged, plus their relationships that were identified from the process (the process resulted in the following)</b>	<b>Number of codes, categories and core category identified</b>
Open coding	Initial coding, In vivo coding, Process coding, Descriptive coding, Analytic memos, Jotted down notes	Identified codes, categories and subcategories.	587 Codes
Axial coding	Analytic memos, Conditional relationship guide, Coding paradigm	Established the relationship between categories and subcategories (properties and dimensions). Identified the connections between categories and the consequences that resulted from them.	126 Subcategories 15 Categories (6 training evaluation contexts, 6 processes, 2 causal conditions and 1 intervening condition) 4 consequences
Selective coding	Analytic memos, Coding paradigm model, Reflective coding matrix	Select the core category and integrate all other categories to the core category.	1 core category

The six context categories that emerged were trainee reaction, learning, employee productivity, employee performance, employee commitment and creativity (section 4.3). The six process categories that emerged were feedback, test, productivity ratio, performance appraisal, monitoring and creativity workshop session (section 4.6). The two causal condition categories that emerged were training need assessment and training objectives validity (section 4.4). The one intervening condition category that emerged was contextual factors (section 4.5). The four consequences that emerged were the immediate outcomes of a training programme, direct outcomes of a training programme, performance outcomes of a training programme and behavioural outcomes of a training programme (section 4.8). The results from the analysis contained in this chapter (supported by existing literature) allowed the objectives and aim for the research to be achieved and the emergence of a context specific theory, presented in chapter 5.

Because of the iterative, dynamic and complex analysis process summarised above, discussed in chapter 3 and illustrated in figure 3.6, it would be impossible to present the analysis in chronological or sequential steps from the original identification of codes, to the development of categories, subcategories and ultimately the core category. Thus, in order to make the analysis understandable and coherent, this chapter will present data focussed on the 15 categories that emerged and explain how their subcategories (properties and dimensions) were identified.

### 4.3 Data analysis relating to the category: Training evaluation contexts

This section will explain how each of the six categories of the training evaluation contexts were identified and also how their associated properties and dimensions were created. The six categories were trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity. Each contained properties and dimensions that provided meaning and richness to them.

#### 4.3.1 Category A: Trainee reaction

Trainee reaction emerged as a category from participant descriptions of how training programme outcomes could be measured. During the analysis process, three properties and ten dimensions of it emerged. The hierarchical relationship between them is shown in figure 4.1 and discussed below.

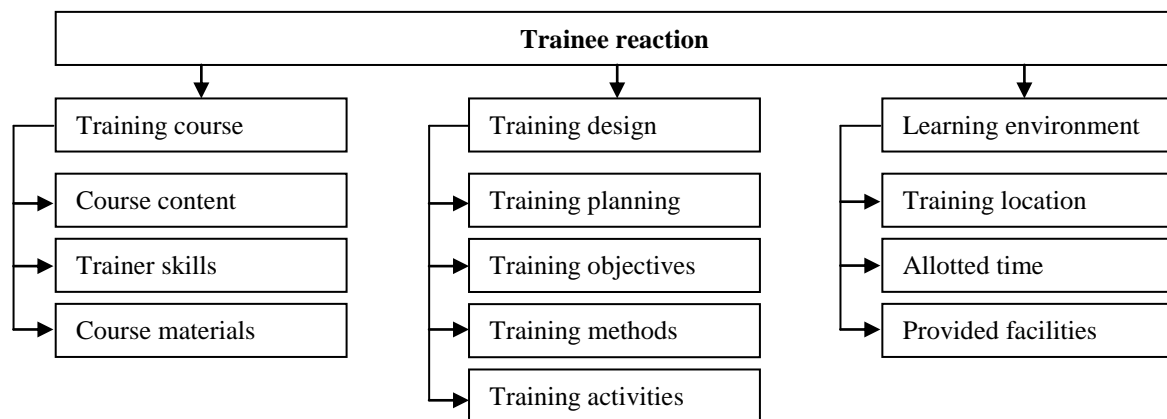


Figure 4.1: Properties and dimensions of the category trainee reaction

*Operational definition:* Trainee reaction refers to the degree to which trainees were satisfied with the training programme in terms of training course, training course design and the learning environment.

The operational definition was created using an analytic memo to amalgamate individual answers provided by participants (table 4.2 and section 3.6.5 for an explanation of the

process). Respondents explained that trainee reaction focused on the immediate response to a training programme and would be relevant to objective based assessment. Respondent views were consistent with the existing literature (Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2000; Kaufman, 1995; Hamblin, 1974). For example, participant C33 made the following observation:

*The assessment of trainee reaction is to focus on the identification of immediate results of the training programme. It includes determining whether or not the training programme objectives are met and also to identify the effectiveness of the training programme content, provided facilities, training environment etc. Though trainee reaction does not directly impact on overall performance itself, it primarily indicates a positive response to the training.*

Table 4.2: Analytic memo, reflecting the operational definition of the category trainee reaction

<b>Code definition: Trainee reaction</b>
<p>Employees attend off the job training which uses a variety of training methods, for example, lecture, workshop, seminar etc. They participate in training both at the training institute and abroad, that allows them to acquire theoretical knowledge, understanding of company codes and practices, work safety issues, management techniques and practices etc. As different training is provided to achieve different benefits or purposes, the company needs to understand the extent to which the objectives have been achieved.</p> <p>Immediately after a training session, the trainee is asked for their opinion about whether they are satisfied with it and how they felt the training course content, trainer skills and course materials were helpful to them. After the training, a trainee is also asked to provide their responses about the training environment and the facilities provided to them.</p> <p>Trainee reaction in relation to a training programme is often obtained by administering a feedback form or questionnaire the results of which can reflect their satisfaction with the training design etc.</p> <p>The term trainee reaction is similar to other codes identified including, response, opinion, feedback, all related to the satisfaction levels of trainees with the training provided in terms of training course, training design and training environment.</p> <p>Trainee reaction frequently emerged in the data as participants' own words as an in vivo code in the first part of the coding cycle. Subsequently, the code trainee reaction was confirmed as a category in the second part of the coding cycle.</p> <p>March, 08 / 2015</p>

Over half of respondents (25 out of 45) said that trainee reaction was the best and easiest way to measure the success of training programmes. 43 out of 45 interviewees said that companies in the textile industry frequently assessed trainee reactions immediately after a training session in order to evaluate its effectiveness. Respondents indicated that this would be most frequently carried out by the training provider or training manager, for example, after an induction training course. Respondent views were supported by writers including (Philips and Philips, 2016; Kraiger et al., 2004; Kraiger, 2003; Holton, 1996).

The code trainee reaction emerged during open coding as a descriptive code from participant responses (table 4.3) but during axial coding it was classified as a category.

Table 4.3 Example of an interview statement and the resultant descriptive code trainee reaction

Case ID and Quote	Descriptive code
C15, I know training is a huge investment for a company. Therefore, the success of training programmes and their value have to be confirmed and assessed. We always get the reactions of the trainees to understand the degree to which training is useful to them and the organisation. Reaction is the immediate response on the success of training programme outcomes. Thus, our company has adopted this approach to measuring training over the past 20 years.	Trainee reaction

Trainee reaction emerged during open coding through the use of jotted down notes, which encouraged the identification of new codes and the possibility of their future classification as a category (for example, table 4.4). The conditional relationship guide was used during axial coding to establish and verify the relationship between a category and its subcategories. Table 4.5 illustrates its use for the property training course and the category trainee reaction.

Table 4.4: Illustration of the development of codes, subcategories and the category trainee reaction from respondent quotes

Q2	Case ID and Quote	Codes	Subcategories	Category
How do companies in the textile industry in Bangladesh assess the effectiveness of training programmes?	C2, After a training session, it is necessary to identify trainee's opinion about the training course content and trainer skills. However, other things might also need to be considered.	Opinion, Course content, Trainer skills	Training course	Trainee reaction
	C7, Trainers are required to be exceptionally professional and dynamic, they have to cover a wide variety of essential insights and theoretical teaching – all of these skills can assist trainers in engaging and motivating trainees towards achieving the desired outcomes of the training course.	Trainer skills, Training course	Training course	Trainee reaction
	C10, One thing to keep considering when we provide training is whether or not the training programme is significantly satisfactory and useful to the trainee. This is why, we always get the reactions of the trainees whether they are satisfied with the particular training plan, provision or design.	Reaction, Training planning, Training design	Training design	Trainee reaction
	C15, An appropriate training location and facilities are essential for the success of training. The training and development manager has to consider the need for a supportive atmosphere when arranging training. Indeed, a trainee can learn better when they react positively to the learning environment.	Location, Facilities, Supportive atmosphere, React positively, Learning environment	Learning environment	Trainee reaction

Several participants (for example, the quote from participant C30 below) explained that the primary objective of an induction training course was to provide knowledge in relation to job descriptions, job functions and duties. To evaluate trainee reactions to such a course, companies provided a feedback evaluation sheet to participants in the training to get their initial responses about the training design, trainers, course content and learning environment. If trainee reactions were positive about the training programme it was taken to suggest very strongly that the primary objective of the training had been achieved.

*Trainee reaction is the immediate response on the success of a training outcome. Perhaps, reaction is the easiest way to measure the immediate training outcome. We usually arrange feedback reviews after the end of the particular training session, specifically, for classroom training in relation to a particular subject. Our company provided a feedback evaluation sheet to those who participated in the induction training course to get a response of trainee in relation to training course, material, training design and curriculum. If employees are highly satisfied with the training programme, it means that the primary objective of the training is achieved. We frequently measure such responses, as it is the easiest way to measure trainee reaction in relation to a training programme. It is also less time consuming than other options to get the immediate response of trainees in relation to training courses.*

Table 4.5: The conditional relationship guide established and verified the relationship between the code training course and trainee reaction as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Training course	Frames the training course.	Before delivery of training, Arrange effective training design and planning, Training session	Human resource department of the company, Training and development department, Outside and inside the company training session	Effective training programme, Training needs assessment, Training objectives validity	Training and development manager required to make a plan, Course content, Trainer skills, Course materials	Trainee reaction

Documents from company A3 were consulted in relation to the assessment of trainee reaction (appendix K) and were used to better understand the category. The results confirmed respondent comments about their scope and regular use of that form of evaluation.

### 4.3.1.1 Properties and dimensions of the category trainee reaction

Three properties of trainee reaction (training course, training design and learning environment) were identified during the analysis and these are discussed below along with their associated dimensions.

#### Property 1: Training course

Training course emerged during the coding process as a property of the category trainee reaction. Three dimensions of training course were identified, training course content, trainer skills and course materials. For example, respondent C36 made the following observations about training course:

*C36, When a company provides training to employees, the training course criteria must be satisfied along with the needs of employees. It is possible to identify trainee responses about whether training course content, trainer skills and materials were useful to them. Training courses need to be useful and appropriate. It is an important part of the training that makes the training worthy.*

The code training course emerged during open coding (tables 4.4 and 4.6) but became a property during axial coding. The codes course content, trainer skills and course materials also emerged during open coding (table 4.4). These were subsequently classified as dimensions of the property training course through the use of the conditional relationship guide during axial coding (for example, table 4.7). Codes were also jotted down during open coding, which led to the identification of new codes along with the possible subcategory classification of training course (table 4.6).

Table 4.6: Example of an interview statement, open codes, jotted down notes and the final code training course

Case ID and Quote	Open codes, jotted down notes	Final code
C3, We provide induction training which allows new employees to learn the rules and systems of their new job or position. Employees also have an opportunity to learn about communication skills, safety and protection procedures, business policy and the nature of the business. So, we need to get trainee opinion on whether or not the training was helpful in meeting their needs.	Rules and systems of their new job, Communication skills, Safety and protection, Business policy and business nature	Training course

Participants C2, C3, C5, C6, C7, C8, C10, C15, C18, C26, C27, C30 and C32 explained that if a trainee was positive about the training course in relation to course content, trainer skills and course materials, it indicated that they were interested and more likely to have

learned from it. Thus, a positive reaction about these issues suggested that there was a chance of the company benefiting from the trainee's application of the material learned. For that reason, respondents generally thought it important to assess trainee opinions about the training programme content. Extracts from two interviews (respondents C18 and C27) included two and three dimensions of the property training course respectively:

*C18, After a training session, it is necessary to identify a trainee's opinion about the training course. This may include course content and curriculum. However, this is not always the case as there might be something else that is relevant to a particular course and objectives. Like, you can get trainee's response in relation to trainer skills by asking them how skilled and knowledgeable the trainer was in delivering the particular topic, whether they were able to apply efficient training techniques incorporating powerful tools and were dynamic in their approach to training the employee. If you find that the trainee was not satisfied about the trainer skills, there would be a bit of confusion in relation to the value of the training course.*

*C27, We get trainee responses regarding course materials. It could be what they liked or not about the training course materials, resources, trainer lecture notes, books etc. What we do is to collect trainee feedback immediately after finishing the programme. We try to know whether or not trainees were satisfied with course content and whether it specifically encouraged employee learning to improve their job duties and responsibilities and encouraged positive change towards their job.*

The conditional relationship guide was used to clarify the links between categories and subcategories (properties and dimensions) and to assist in the axial coding process. During axial coding, the codes course content, trainer skills and course materials were analysed to identify the common themes. That was done using the conditional relationship guide based on Scott (2004) and Strauss and Corbin (1998). For example, table 4.7 demonstrated that the conditional relationship guide provided a clear framework for answering the questions what, when, where, how, why and what consequences resulted from training for the code course content. The result being that the category training course emerged and was classified as a property with the code course content being its subsumed dimension. The use of the conditional relationship guide for each code (course content, trainer skills and course materials) identified the same consequence, that of training course, which was therefore assigned the label of a property. This process marked the commencement of category development. See chapter 3 for a full explanation of the conditional relationship guide and its role in the research.



Table 4.7: The conditional relationship guide established and verified the relationship between the code course content and training course as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Course content	The content used in the training session.	During training, Class room training, Providing training, Workshop training, Induction training	Inside the company training session, Outside the company training session	Arranging training, Providing training, Lesson effectively delivered	Frames the training course	Training course

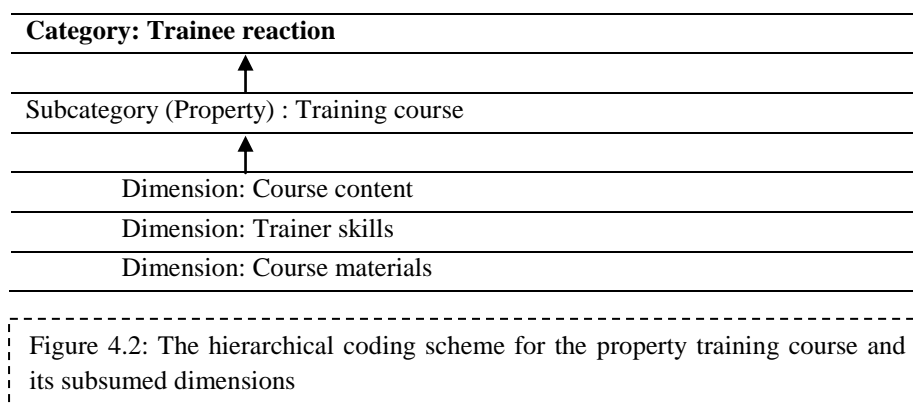
The first four questions in the conditional relationship guide identified contextual conditions and boundaries. The fifth question identified actions and interactions among the categories. This question enabled the identification of participant understanding of the consequences of the training received. Participants responded that course content became evident as a result of its use during the training activity and subsequently, in the work activities of trainees. Nine respondents (C2, C5, C8, C10, C15, C25, C32, C33 and C39) provided views about how course content occurred in the workplace. The following quote from respondent C5 was typical of the views expressed:

*After a training session, we take employee reaction about whether they were satisfied with the training course and whether they felt that the training course content was helpful to them. An assessment is carried out after providing training in order to measure whether trainees were satisfied with the trainer's lecture. For example, when trainee respond that the course content was useful to them, they will be more likely to use their new knowledge at work. Actually, getting their opinion is a significant way to understand training programme outcomes.*

Participant C5's response provided evidence that course content could arise in different ways and with different consequences. Answers to the sixth question about the consequence of course content revealed respondent views about what they considered to be the effects of it on a training course.

The codes course content, trainer skills and course materials were identified and brought together as dimensions of the property training course, which was in turn subsumed under the category trainee reaction (figure 4.2). A process referred as parent or hierarchical

coding in grounded theory (Scott, 2004; Strauss and Corbin, 1998). In addition to the jotting down process previously explained, analytic memo writing was used to identify patterns between codes during open coding, achieved through the conditional relationship guide, see the example in table 4.6. Analytic memos were written and rewritten many times which ultimately led to the identification of the category trainee reaction and its related subcategories (figure 4.2).



### **Property 2: Training design**

Training design emerged during the coding process as the second of the three properties of the category trainee reaction. Four dimensions of training design were identified, training planning, training objectives, training methods and training activities. Participants reported in that their experience the dimensions indicated were used to create an effective training design for the programme. For example, participant C8 explained that:

*We need to properly design a training programme before we deliver it. Therefore, there are actions that need to take place for the design of the training to be effective. For example, training planning, training methods and selection of participant activities are all required if the training programme needs to be successful. If we could create an effective training design, it leads to the success of a training programme.*

The code training design emerged during open coding (tables 4.4 and 4.8) but became a property during axial coding. The codes training planning, training objectives, training methods and training activities also emerged during open coding (table 4.4). These were subsequently classified and verified through the use of the conditional relationship guide during axial coding as dimensions of the property training design (for example, table 4.9). Codes were also jotted down during open coding, which led to the identification of new codes along with the possible subcategory classification of training design (table 4.8).

Table 4.8: Example of an interview statement, open codes, jotted down notes and the subcategory training design

Case ID and Quote	Open codes, jotted down notes	Subcategory
C8, Company needs to establish the design of a training session before arranging it. In this regards, it needs to identify the participants who need training, the plan for the programme, training objectives etc. After the particular training is delivered, it should identify trainee feedback about training design.	Design a training session, Selection of participants, Planning for the programme, Training objectives, Training design	Training design

Participants C2, C3, C5, C7, C8, C18, C25, C27, C33, C38 and C40 expressed the view that if a trainee was positive towards the planning for training in relation to the selection of participants, the training objectives, the training activities and the training methods adopted, they were more likely to have learned from the course. The following statement reflected the views of participant C2 about training design and the related codes training planning and training objectives.

*Successful training not only depends on a skilled trainer but also on systematic training design. In this regard, it is obvious that trainee has to be alert and feel positive that the training design has been done effectively. Systematic training design is essential for the success of a training programme. This may include training planning, the selection of the right participants, training activities and appropriate training objectives. So, it should be done effectively.*

Participants explained that training activities and appropriate training methods were significant parts of the design process, see for example, respondent C25’s explanation below. Consequently, companies attempted to assess trainee reactions to those aspects of training to identify the degree of satisfaction with the training design. A positive response from trainees was taken to mean that the primary objective of the training was more likely to have been achieved.

*C25, I suppose, appropriate training methods, (for example, on the job training or off the job training) are the most important part of the design process and each part of the design process is connected with another part. For example, training need identification helps to identify the right person for the training and also in choosing suitable methods for its delivery. So, if one step goes wrong, it will impact the next steps. Importantly, if you can find the proper person to provide the training of needs based training; this will positively impact on the entire training process.*

The conditional relationship guide was also used to identify the relationship between the dimensions training planning, training objectives, training methods and training activities and the property training design. For example, the relationship between training planning and training design is shown in table 4.9.

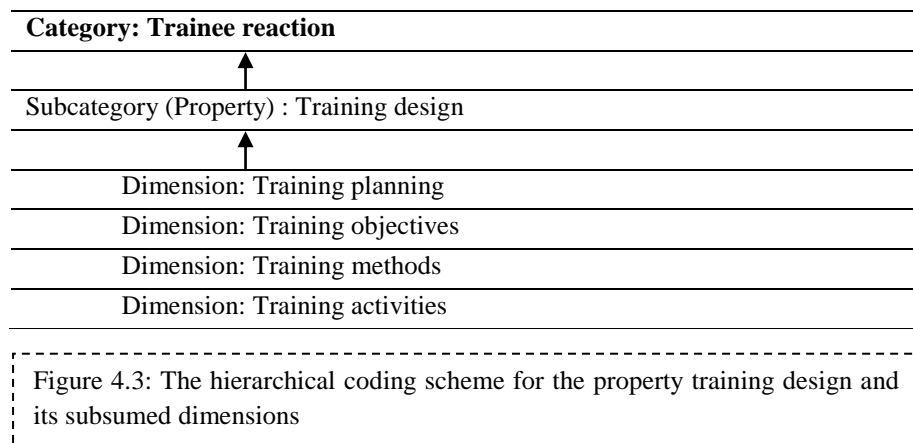
Table 4.9: The conditional relationship guide established and verified the relationship between the code training planning and training design as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Training planning	Training planning is the thinking process to arrange an effective training design.	Before delivery of training, Arrange effective training design, Induction training	Human resource department of the company, Training and development department of the company	Arranging training, Identify training needs analysis, The selection of participants, Finding a process for appropriate design	Short and long term planning process for training inside the company, By a training and development manager who is required to make a plan	Training design

Ten respondents (C2, C5, C8, C10, C15, C18, C25, C32, C36 and C38) expressed views about how training planning occurred in the workplace and its consequence of being a property of training design (table 4.9). The following quote from respondent C2 was typical of the views expressed:

*Systematic training design is essential for the success of a training programme. This may include training planning, the selection of the right participants, and the identification of training need. A training and development manager needs to make a systematic plan in order to create an effective training design for the future training need analysis. In this regard, selecting participants, and finding the process for the appropriate design.*

The codes training planning, training objectives, training methods and training activities were brought together as dimensions of the property training design during the process of parent or hierarchical coding (figure 4.3). Consequently, the code training design was assigned as a property under the higher category trainee reaction during the process of subsuming several similar codes under one major code.



### Property 3: Learning environment

Learning environment emerged during the coding process as the third property of the category trainee reaction. Three dimensions of learning environment were identified, training location, allotted time and provided facilities. Participants reported that in their experience these dimensions created an effective learning environment for training programmes. For example, participant C12 explained that:

*One thing has to be continually considered, when we provide training is whether or not a training programme is significantly satisfactory and useful to the trainee. This is why, we always get the reaction of the trainees whether they are satisfied with the learning environment in any particular training provision or not. A systematic training location and facilities are essential for the success of training. Indeed, trainee can learn better when they react positively to the learning environment.*

The code learning environment emerged during open coding as a descriptive code from participant responses (table 4.10) but during axial coding it was classified as a property.

Table 4.10: Example of an interview statement and the resultant descriptive code learning environment

Case ID and Quote	Descriptive code
C15, We need to identify a favourable learning atmosphere. If a learner does not find learning climate comfortable to them, they would not enjoy a training session or learn what was expected. Thus, it requires understanding of whether or not the learning environment is comfortable to them.	Learning environment

Respondents C2, C3, C5, C6, C8, C18, C20, C25, C26, C27, C36 and C38 raised issues about the learning environment in terms of the favourableness of the training location, allotted time for the training and the facilities provided for the successful delivery of training. Participant experience was that learning environment was the conditional context to a successful training session. The following statement by interviewee C18 about

learning environment as a property and the codes training location, allotted time and provided facilities as dimensions of it was indicative of other respondent views:

*The positive reaction of the trainees may be the success of the training. Actually, there is no doubt that a trainee can learn better when they react positively to the learning environment, like, sound atmospheres, duration of the training or providing networking opportunities. Moreover, a trainee must feel that the allotted time for the training is appropriate and useful. Trainees also need to be satisfied with the training provided facilities.*

During axial coding, the codes training location, allotted time and provided facilities were analysed for a common theme and brought together as dimensions of the property learning environment. That reflected a hierarchical coding process that involved a comparison of the codes using the conditional relationship guide as previously described. The three dimensions were grouped together according to the identified theme, which was assigned as the property learning environment (figure 4.4).

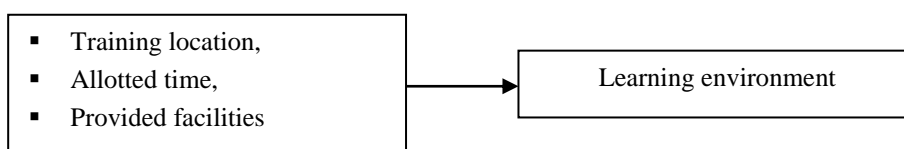


Figure 4.4: Codes raised to the property learning environment

Subsequently, the code learning environment was assigned as a property under the higher category reaction during the hierarchical coding process of subsuming several similar codes under one major code (figure 4.5).

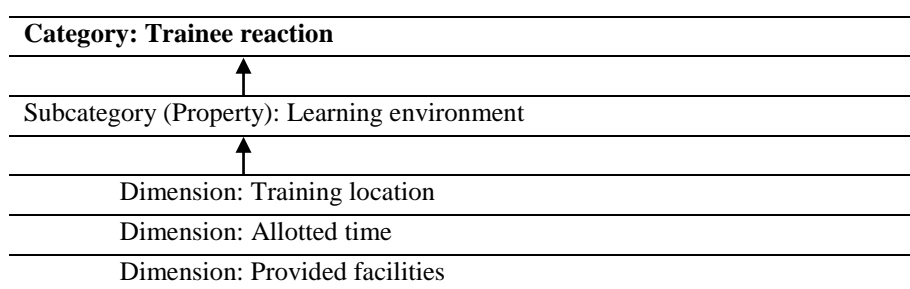


Figure 4.5: The hierarchical coding scheme for the property learning environment and its subsumed dimensions

### 4.3.2 Category B: Learning

Learning emerged as a category from descriptions of the factors to be included when measuring training programme outcomes. During analysis, three properties and seven dimensions of it emerged. The hierarchical relationship between them is shown in figure 4.6 and discussed below.

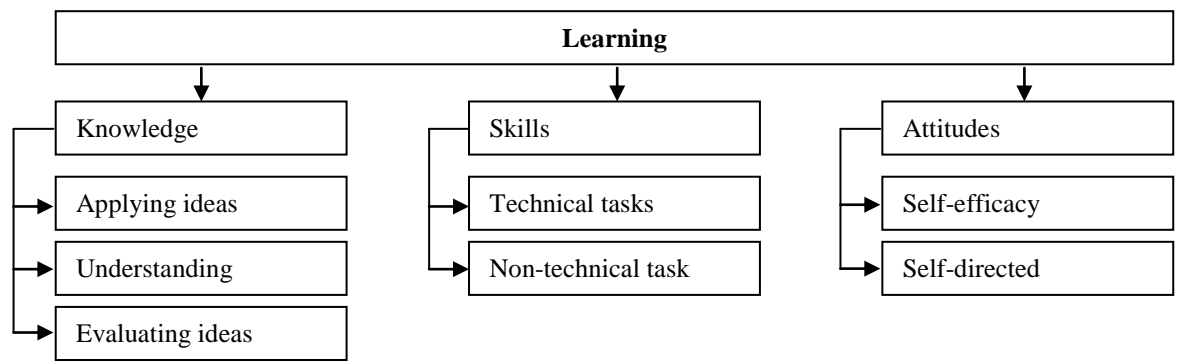


Figure 4.6: Properties and dimensions of the category learning

*Operational definition:* Learning refers to the degree to which a trainee’s knowledge, skills and attitudes (KSAs) improved as the result of training.

The operational definition of the category learning was created during data analysis from the responses of participant C10:

*Assessing learning, we identify the extent to which trainee’s knowledge, skills and attitudes have improved as the result of training. We use the terms knowledge, skills and attitudes usually referred to as KSAs.*

40 out of 45 participants explained that textile industry companies frequently assessed the level of trainee learning achieved in order to evaluate the value of a training programme. Participants explained that the primary objective of training was to provide and improve knowledge, skills and changed attitudes in relation to the duties and performance of trainees. If the demonstrated KSAs of trainees improved following training, it was assumed that the objective and direct outcomes of the training had been achieved. Respondent views were supported by several writers (for example, Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Kraiger et al., 2004; Holton, 1996). According to respondents, supported by the literature, learning focused on the direct outcomes of training and was particularly relevant to objective based evaluation. For example, participant C5 provided the following quote:

*An assessment is carried out after on the job and off the job training was delivered in order to measure what they have understood and learned in terms of knowledge, skills and attitudes. You know training was useful when employees really learned something from the training and were also able to implement their acquired new knowledge, skills and attitudes back to their work. All of which positively reflect the direct outcomes of the training course. These are related to the evaluation of the objectives of a training programme.*

The code learning emerged during open coding as a descriptive code from participant responses (table 4.11) but during subsequent axial coding it was classified as a category.

Table 4.11: Example of an interview statement and the resultant descriptive code learning

Case ID and Quote	Descriptive code
C10, Training programme should be significant in order to enhance knowledge and skills. Thus, we measure the learning achieved-how trainees have developed in relation to new knowledge, skills and attitudes.	Learning

Participants explained that learning occurred when an employee was able to demonstrate the KSAs acquired through training in their actual work activities (views supported by Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2000; Kaufman, 1995; Hamblin, 1974). For example, the links between training and a trainee’s KSAs are apparent in the comments of respondent C15:

*If they really acquire new knowledge, skills and changed attitudes that mean that the training programme is valued by employees. This is how trainees’ KSAs had been measured since 1995 in our company. However, you know training is valued when employees learn something significant from a particular training session and they are able to demonstrate that knowledge in their work.*

The analytic memo in table 4.12 was created to reflect on and record thoughts about learning in order to create a validity check on the developing understanding of the term.

Table 4.12: Analytic memo, reflecting the subcategories of knowledge, skills and attitudes and the category learning

<b>Knowledge+ skills + attitudes = Learning</b>
<p>Respondents stated that after a training session the training provider, supervisor and/or manager would assess the trainee’s knowledge, skills and attitudes in order to measure the effectiveness of a training programme. For example, interviewee C10 made the following observation that broadly reflected the experiences of more than half of the interviewees:</p> <p><i>When our company evaluates a training programme, their task is just to understand exactly what the learner has acquired from the training session. For example, we identify the extent to which trainee’s knowledge, skills and attitudes increase. We usually refer to it in shortened form as KSAs. If employee knowledge, skills and attitudes increased it could be judged that employee learning has increased.</i></p> <p>Participants C2, C3, C5, C6, C7, C8, C10, C14, C15, C18, C22, C26, C27, C28, C30, C33, C36, C39 and C40 used the word learning. So, it emerged in the data as a descriptive code and also an in vivo code during open coding and then learning was confirmed as part of the category employee productivity during axial coding after 15 interviews. The category learning was also supported and validated through analytic memo writing and the conditional relationship guide.</p> <p>11 March 2015</p>



### 4.3.2.1 Properties and dimensions of the category learning

Three properties of trainee learning in the form of acquired KSAs were identified during the analysis and these are discussed below along with their associated dimensions.

#### Property 1: Knowledge

Knowledge emerged during the coding process as a property of the category learning. Three dimensions of knowledge were identified, applying ideas, understanding and evaluating ideas. Participants reported that companies in the textile industry frequently evaluated the value of training through an assessment of the extent to which a trainee’s knowledge in terms of applying ideas, understanding and evaluating ideas had increased after training. They reported that their experience was that knowledge gained was the direct outcomes of a successful training programme. The views of respondents confirmed the findings of previous research (for example, Guskey, 2017; Philips and Philips, 2016; Richard, 2011; Kirkpatrick and Kirkpatrick, 2006; Holton 1996; Kaufman, 1995; Hamblin, 1974). The following quote from respondent C33 was typical of the views expressed:

*You know when employees attend a training session, it might be any sort of training course, for example, induction training methods or apprenticeship training methods that the training should enhance employee knowledge. As a result of new knowledge, employees get more involved in their work. For example, they may be able to apply their new ideas to create better performance at work.*

The code knowledge emerged during open coding (table 4.13) but during the subsequent axial coding it was classified as a property of learning.

Table 4.13: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C3, You can say it is an alternative way to build up sense. Obviously, a trainee gets additional knowledge to do things differently than they did previously. So, after a training course it is obvious to assess a trainee’s knowledge to understand whether or not the training programme was successful. Obviously, the objective of any training programme is to increase knowledge.	Understanding, Applying ideas, Knowledge, Training programme outcome, Knowledge

Participants C2, C5, C6, C7, C8, C10, C15, C18, C22, C26, C27, C28, C30, C33 and C39 explained that if a trainee’s knowledge improved after attending training, it indicated that the training was successful. Respondent views were supported by writers including (Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Kraiger et al., 2004; Holton, 1996). Therefore, in the specific research context, respondents thought that it was important to assess knowledge in terms of applying ideas, understanding and evaluating ideas. The

following statement reflected the views of participant C2 in relation to knowledge, as part of understanding ideas and applying ideas:

*Long time ago when I joined as a senior executive in this company, I had to attend an induction training course, which was obviously helpful. I found this helpful to enhance my understanding and apply my ideas. I was able to deal with any certain or uncertain situation that arose and was able to assess those situations critically. Certainly, these are examples of the direct outcomes of what a trainee acquires after a training programme.*

The code understanding ideas, applying ideas and evaluating ideas were brought together as dimensions of the property knowledge during the process of parent or hierarchical coding. Consequently, the code knowledge was assigned as a property under the higher category learning during the process of subsuming several similar codes under one major code (figure 4.7).

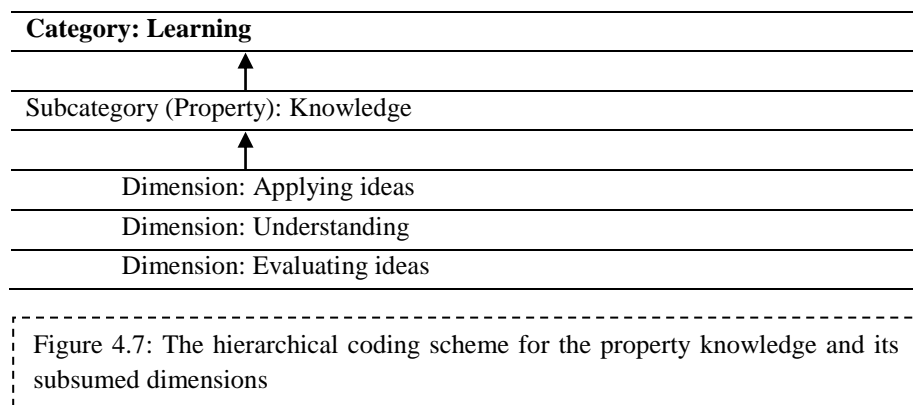


Figure 4.7: The hierarchical coding scheme for the property knowledge and its subsumed dimensions

### **Property 2: Skills**

Skill emerged during the coding process as the second property of the category learning. Two dimensions of skills were identified, perform technical tasks and perform non-technical tasks. Participants C3, C11, C15, C28 and C36 indicated that the success of training programmes could be assessed by measuring the improved ability of trainees to perform technical tasks and non-technical tasks. Participant experience was that skills measured in this way were the direct outcomes of a successful training session. The views of respondents were supported by previous research (for example, views supported by Kirkpatrick and Kirkpatrick, 2016; Philips and Philips, 2016; Guskey, 2000; Kaufman, 1995; Hamblin, 1974). As a typical example of comments, interviewee C11 stated that:

*I think training may enhance employee skills. Skills may count as the pillar on which company can measure employees' learning outcome from a training programme. It reflects the direct outcome of a training to enhance skills. It may be easy to identify a unique skill*

or a set of skills. Typically, company may carry out the assessment identifying what skills are legitimate.

The code skill emerged during open coding as a descriptive code from participant responses (table 4.14) but during subsequent axial coding it was classified as a property of learning.

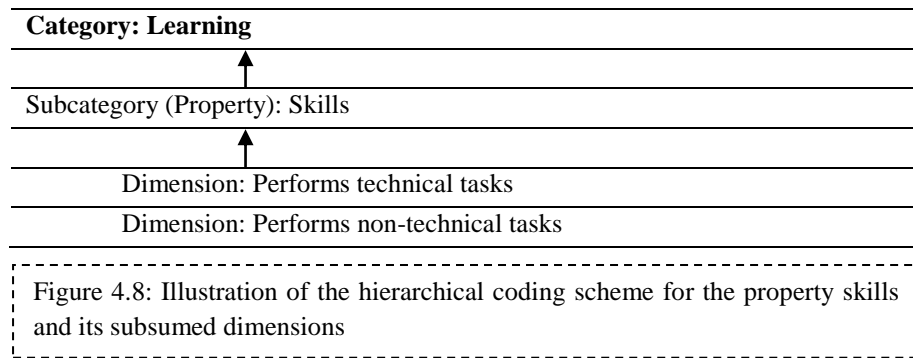
Table 4.14: Example of an interview statement and the resultant descriptive code skills

Case ID and Quote	Descriptive code
C 5, At first glance, a learner should acquire new skills through training, no matter what kind of training it is, but training has to benefit the increase in all skills and capability. Thus, a company attempts to assess what types of skills a learner gains in practice? Like technical skills or any other non-technical skills.	Skills

Respondents C3, C5, C8, C11, C15, C18, C22, C25, C28, C37 and C38 commented on the relevance of skills in terms of the need for employees to be able to perform technical and non-technical tasks for the delivery of a training programme to be considered successful. The following statement represented the views of interviewee C3 in relation to skills as the property and the code performs technical tasks and non-technical tasks as dimensions of it. This quote is also indicative of the views expressed by other respondents:

*I would say any training programme should be able to enhance the skills of the people. It would be not so difficult to identify what skills have been enhanced for an employee after any particular training. Our company attempts to identify how a trainee performs in both technical and non-technical jobs after receiving training. You may have a bunch of skills which are necessarily important for a job and these skills require to be assessed. In this case, it is crucial to be able to identify the gap between the previous skill and the skill achieved after training. For example, you may be under observation to find out whether you can communicate effectively with your peers or boss that you were previously never good at, but after training you would be able to communicate very well.*

The code performs technical tasks and performs non-technical tasks were brought together as dimensions of the property skills during the process of parent or hierarchical coding. Consequently, the code skills was assigned as a property under the higher category learning during the process of subsuming several similar codes under one major code (figure 4.8).



### Property 3: Attitudes

Attitude emerged during the coding process as the third property of the category reaction. Two dimensions of attitudes were identified, self-efficacy and self-directed behaviour. Participants explained that companies in the textile industry frequently assessed the extent to which trainee attitudes changed significantly following training. Respondent views confirmed the findings of previous research (for example, Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Kaufman, 1995; Hamblin, 1974). It was said by respondents to be the observed change in attitudes in the workplace after attending a training programme and demonstrated the degree to which training course objectives had been achieved. For example, respondent C25 shared the following opinion, which was similar to the views of respondents C14, C15, C28, C36 and C40:

*Sometimes, it happens that employee knowledge and skills improved but they were not willing to apply at work. Thus, we also check whether their attitudes changed positively or not. After a training programme trainees' attitudes may change positively and it could be something like they were better able to do their work more confidently. It is however not easy to identify what attitudes were changed after training has been provided.*

The code attitude emerged during open coding (table 4.15) but it became a property during axial coding. The codes self-efficacy and self-directed behaviour also emerged from the analysis of interviews during open coding (table 4.15). These were subsequently classified as dimensions of the property attitude through the use of the conditional relationship guide during axial coding (for example, table 4.16).

Table 4.15: Example of an interview statement and identified open codes	
Interview quote	Open codes
C31, Training could build employees' self-confidence in completing their jobs. It is the strength of one's belief in own ability to do work accurately. I do believe it is self-efficacy that I gained from leadership training. Actually, I attended leadership training a few years ago which enabled me to boost my positive attitudes. I now feel confident that I can handle things efficiently without any doubt or unexpected events. If I am in a problem, I am able to think and find a solution with confidence.	Self-confident, Belief in own ability, Self-efficacy, Leadership training, Attitudes, Feel confident, A solution with confidence

Participants C3, C7, C14, C15, C22, C27, C28, C31, C33, C36, C40 and C41 expressed the view that positive attitudes (defined as such by management) were an outcome of successful training. The following statement represented the views of interviewee C40 in relation to attitude as a property and its dimensions of self-efficacy and self-directed. This quote is also indicative of the views of several other respondents:

*There is no doubt that a training programme is significantly beneficial when it can positively impact on employee attitudes. Particularly, employee self-efficacy could be enhanced in the job by attending professional development training. As a result, an employee works more confidently and self-directed even in complicated situations.*

Respondent C31 made the following observation about self-directed in relation to attitudes:

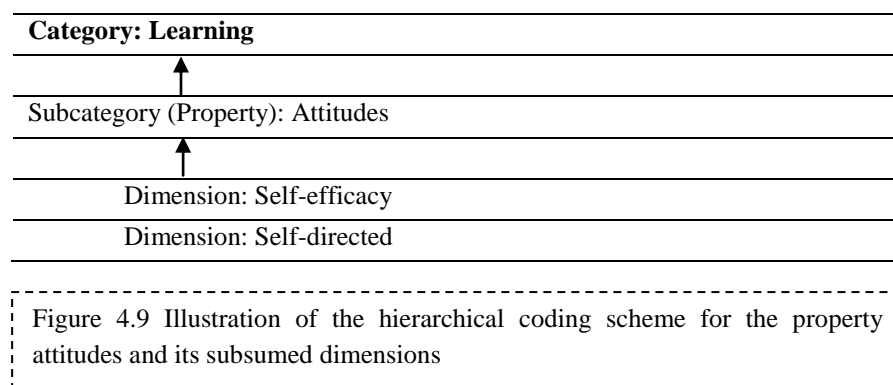
*After attending employee development training, we are more self-directed in the performance of our work. We are more likely to work effectively towards achieving a goal. If I say how do I act or feel after training? I would definitely say that I could sort out problems more easily than earlier due to my hard effort to resolve them. Even if I get resistance in doing so, I endeavour to find ways to get on and solve the problems. Actually, I stick to my goal to be accomplished and I endeavour to achieve it.*

The conditional relationship guide was used to identify the relationship between the dimensions self-efficacy and self-directed and the property trainee attitude. For example, the relationship between self-efficacy and attitude is shown in table 4.16.

Table 4.16: The conditional relationship guide established and verified the relationship between the code self-efficacy and attitudes as the consequence of it

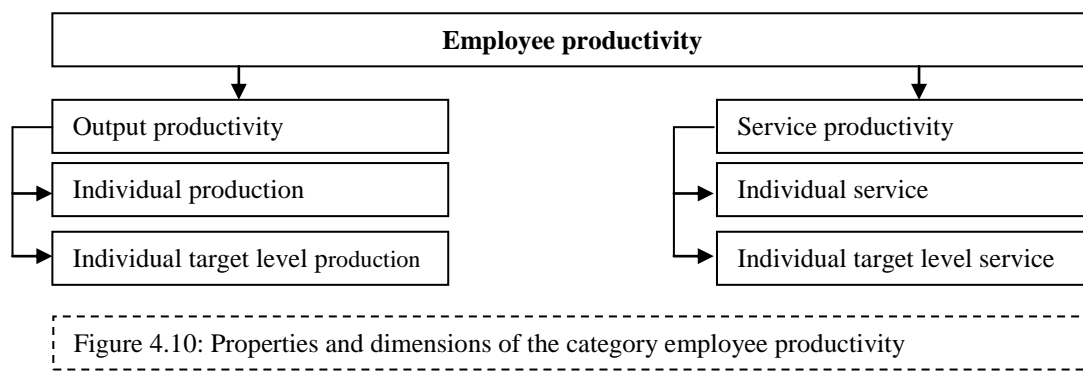
Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Self-efficacy	The process of building up self-confidence to complete a job or the strength of belief in one's ability to do work accurately.	During a solution with confidence, Rely on own abilities, Managing things confidently, Performing job, Facing situations with confidence	In the workplace, Apprenticeship training session, Classroom training session	Attending training, Build up of self-confidence, Belief in own ability, Analyse situations critically	Feel confident after attending training, Applying ideas, Do not feel panic when facing difficulties, Analyse situations critically, Self-confidence	Attitudes

The codes self-efficacy and self-directed were brought together as dimensions of the property attitude during the process of parent or hierarchical coding described previously. Consequently, the code attitude was assigned as a property under the higher category learning during the hierarchical coding process of subsuming several similar codes under one major code (figure 4.9).



### 4.3.3 Category C: Employee productivity

Employee productivity emerged as a category from participant descriptions of factors to include when measuring training programme outcomes. During analysis, two properties and four dimensions of it emerged and the hierarchical relationship between them is shown in figure 4.10 and discussed below:



*Operational definition:* Employee productivity refers to the degree to which a trainee’s work achieves a required level of output and service productivity with minimum effort due to their improved capabilities as the result of the training received.

The operational definition of the category employee productivity was created from the comments of participant C5:

*Employee productivity identifies the extent to which a trainee’s products and services output have increased in a given time. This improvement should meaningfully impact on the work efficiency and work capacity with less effort required.*

A majority of participants (35 out of a total of 45) explained that training had a significant impact on productivity and that companies in the textile industry frequently assessed it in order to evaluate the effectiveness of training. Employee productivity focused on the performance outcomes of a training programme and was particularly relevant to objective based evaluation. Participants explained that workshop training and role play training were frequently used to improve employee output productivity and service productivity in the workplace. If employee output productivity and service productivity increased following training, it was taken to mean that the objective of the training had been achieved. Respondent views were supported by Kraiger et al. (2004) and Holton (1996). Respondents C5, C17, C27 and C34 indicated that an important purpose of training was to increase subsequent trainee output and service productivity (views supported by Von et al., 2016; Halfmann, 2013; Rohan and Madhumita, 2012; Schraeder, 2009). For example, C34 reported that:

*Organising a training course (for example, a workshop or role playing training) is important and valued by the company and employees in order to improve efficiency and also to increase output and service productivity. As you know training can improve employee productivity. Thus, we usually once a year measure employee productivity, specifically those who attended a training programme. It is to assess the individual performance outcomes as the result of a training programme. It is clear that training fosters employee productivity which is significant for both the employees and company as a whole. It would enhance product and service efficiency.*

The code employee productivity emerged during open coding as a descriptive code from participant responses (table 4.17) but during subsequent axial coding it was classified as a category.

Table 4.17: Example of an interview statement and the resultant descriptive code employee productivity

Case ID and Quote	Descriptive code
C5, Training programme is obviously helpful specifically to increase employee productivity. That is why, our company assesses it to measure the outcome of training programmes. However, we sometimes find difficulty in taking decision about when to assess employee productivity, on what basis to assess and whom to assess.	Employee productivity

The analytic memo in table 4.18 was created during axial coding to capture thoughts and reflections about output productivity. It also provided a validity check on researcher thinking. Output productivity was also discovered in the secondary documents of company A6's performance review procedures (appendix L). That information confirmed

respondent views and was used to better understand and validate the category employee performance identified through the coding process.

Table 4.18: Analytic memo, reflecting the subcategories output productivity, service productivity and the category employee productivity

<b>Output productivity + service productivity = Employee productivity</b>
<p>In the textile industry, output productivity and service productivity are used to assess employee productivity. Individual production and individual target level production are used to identify output productivity. Individual service and individual target level service are used to identify service productivity. Participants explained that the textile industry also assessed trainee employee productivity in order to evaluate the performance outcomes of a training programme. For example, Interviewee C16 made the following observation:</p> <p><i>C16, One significant objective of a training programme is to increase employee productivity with minimum effort and less time. Thus, our company often assess employee output and services productivity to understand employee productivity. Our company uses this to ensure the performance outcomes of a training course.</i></p> <p>Participants C2, C4, C5, C9, C13, C16, C18, C19, C21, C22, C26 and C30 used the word employee productivity. So, it emerged in the data as a descriptive code and also as an in vivo code during open coding and then it was confirmed as a category during axial coding after 22 interviews. The category employee productivity was also supported and validated through analytic memo writing and the conditional relationship guide. The code employee productivity was also supported and validated using company A6's documents about performance review procedures.</p> <p>20 March 2015</p>

#### **4.3.3.1 Properties and dimensions of the category employee productivity**

Two properties of employee productivity (output productivity and service productivity) were identified during the analysis and these are discussed below along with their associated dimensions.

##### **Property 1: Output productivity**

Output productivity emerged during the coding process as a property of the category employee productivity. Two dimensions of output productivity were identified, individual production and individual target level production. 26 out of 45 participants explained that companies in the textile industry assessed trainee output productivity in order to evaluate the success of training. Respondents indicated that when employees attended training, they learned many things in relation to work processes, work capacity and how to increase work efficiency with minimum effort and in less time. As a result, their individual output productivity was likely to increase based on the time that it would have taken previously to carry out their jobs (views supported by Von et al. 2016; Colombo and Stanca, 2014; Rohan and Madhumita, 2012; Savery, 2004). The code output productivity emerged from the analysis of interviews during open coding from jotted down notes, which led to its identification as a subcategory (table 4.19) but during subsequent



axial coding it was classified as a property of employee productivity

Table 4.19: Example of an interview statement, open codes, jotted down notes and the subcategory output productivity

Interview quote	Open codes, jotted down notes	Subcategory
C22, Most importantly, why does our company provide training? It's not about company rules and procedure or policy, but more importantly to make trainee alert as to how to involve them in the production process with less effort. Training may not only improve work efficiency, or productivity but also enhance the quality of output.	Production process with less effort, Enhanced work efficiency, Output productivity, Enhance the quality of output	Output productivity

Participant experience was that output productivity was the consequence of increased individual production and individual target level production. The following statement from interviewee C16 illustrates their views about it:

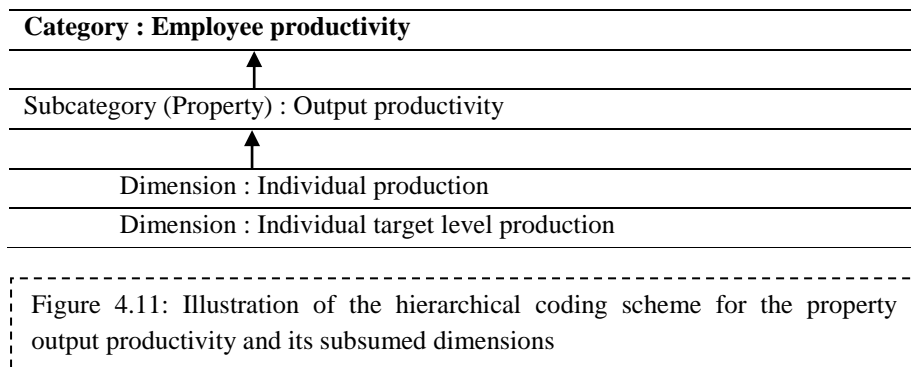
*It is important to arrange an employee training to ensure individual high production. Our company always arranges training in pursuit of enhancing employee output productivity. Our company sometime arranges an indoor and outdoor workshop for 3 or 4 days to design to improve production rates so that departments can meet the production targets set for them. Workshop is a potentially useful method for enhancing employee output.*

The conditional relationship guide was also used in the identification of the hierarchical relationship between each of the dimensions individual production and individual target level production and the property output productivity. For example, the relationship between individual production and output productivity is shown in table 4.20.

Table 4.20: The conditional relationship guide established and verified the relationship between the code individual production and output productivity as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used??	Consequence of the code
Individual production	Individual production rate refers to the number of products an employee produces in a given period of time.	During the production of goods, Amount of sales produced	In the workplace, Manufacture of a batch, Workshop	Attending training, Productive and efficient, Work efficiency, Production efficiency	Increased work efficiency and capacity after attending training, Increased work efficiency, Increased production efficiency, Performing accurately	Output productivity

The codes individual production and individual target level production were brought together as dimensions of the property output productivity during the process of parent or hierarchical coding. Consequently, the code output productivity was assigned as a property under the higher category employee productivity during the process of subsuming several similar codes under one major code (figure 4.11).



### **Property 2: Service productivity**

Service productivity emerged during the coding process as the second property of the category employee productivity. Two dimensions of service productivity were identified, individual service and individual target level service. 23 out of 45 respondents explained that they assessed the extent to which trainee service productivity increased as a result of training. Respondents explained that training could be effectively measured through the assessment of a trainee’s work capacity in terms of individual service and individual target level service (views supported by Halfmann, 2013). The level of both customer retention rate and on time delivery rate, and the interaction between them, reflected the factors that constituted service productivity levels. For example, participant C26 made the following observation about service productivity, which was similar to the responses of participants C3, C12, C23 and C28:

*In general, training represents a basic and effective technique to enhance work capability with minimum effort. Obviously, a training programme may ensure employee service productivity which in turn increases the overall performance of the organisation. Increasing service output on a certain task would boost employee productivity. Our company usually prefers to assess employee knowledge and skills after training, but sometimes particularly, at the end of the year, the company needs to identify employee productivity to measure whether or not it improved after training.*

The code service productivity emerged during open coding from jotted down notes, which led to the identification of it as a subcategory (table 4.21) but during subsequent axial coding it was classified as a property (table 4.22).

Table 4.21: Example of an interview statement, open codes, jotted down notes and the subcategory service productivity

Interview quote	Open codes, jotted down notes	Subcategory
C12, We also provide training to telephone operators giving them lessons about how to minimise customer waiting times in calls, minimising customer complaints and to convince them to treat every call as if it were from potential clients. We also provide training to ensure on time delivery to avoid unnecessary delays.	Minimising customer waiting times on calls, Minimising customer complaints, Convince callers to become customers, Ensure on time delivery	Service productivity

Participants C3 and C23 explained that sometimes it was very complex and challenging to assess the degree to which employee service productivity improved following training. Individual service and individual target level service appeared in respondent C26's comments, which were similar to the responses of participants C3 and C23:

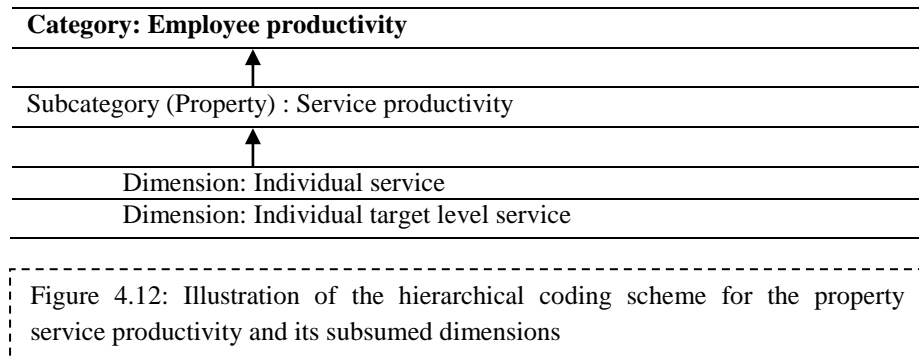
*Our company sometimes assessed employee service productivity as a way to measure the success of a training programme in the organisation. Though, it is complicated to identify in practice whether training really increased employee's service productivity. In general, we measure individual service activity in terms such as call waiting times or target level service activity, for example, 10 customers served per day. As we believe there is a significant impact of training on productivity, the organisation measures these service levels to reflect the performance outcomes of training programmes.*

The conditional relationship guide was used in the identification of the hierarchical relationship between the dimensions individual service and individual target level service and the property service productivity. For example, the relationship between individual service and service productivity is shown in table 4.22.

Table 4.22: The conditional relationship guide established and verified the relationship between the code individual service and service productivity as the consequence of it

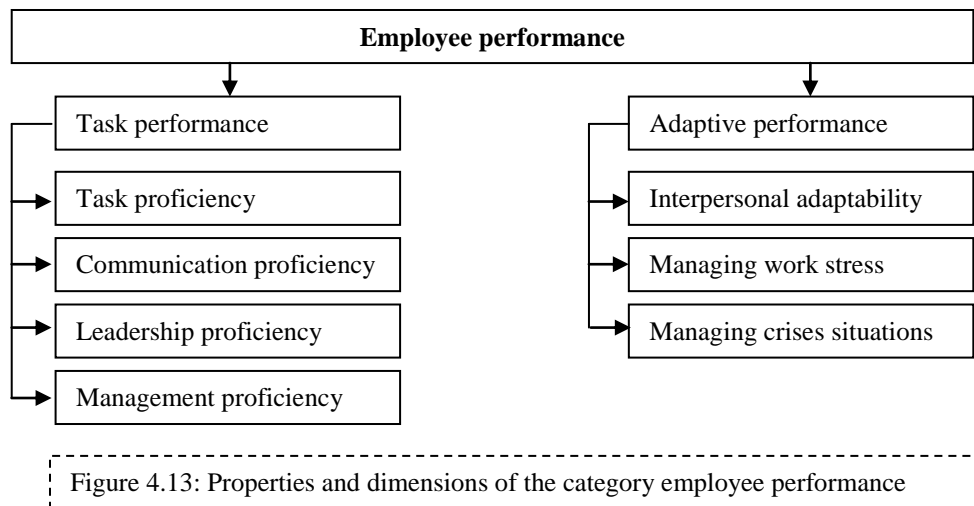
Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Individual service	Individual service rate refers to the identification of the services that an employee provided in a given period of time.	During provide services to customer, Number of customer service calls dealt with, Product service	In the workplace, Customer service trade fair and workshop	Attending training, Competent & efficient, Minimising customer complaints	Increased work capacity after attending training, Increased service rate, On time delivery, Service rate in a given time	Service productivity

The codes individual service and individual target level service were brought together as dimensions of the property output productivity during the process of parent or hierarchical coding. Consequently, the code service productivity was assigned as a property under the higher category employee productivity during the process of subsuming several similar codes under one major code (figure 4.12).



#### 4.3.4 Category D: Employee performance

Employee performance emerged as a category from participant descriptions of the factors to include when measuring training programme outcomes. During analysis, two properties and seven dimensions of it emerged, the hierarchical relationship between them is shown in figure 4.13 and discussed below.



*Operational definition:* Employee performance refers to the extent to which a trainee’s task performance and adaptive performance improved as a result of the training provided.

The operational definition of the category employee performance was created during data analysis from the responses of participant C15.

*Employee performance may refer to the extent to which trainee task performance and adaptive performance have improved as a result of the training provided.*

Most respondents (38 out of 45) said that training was a means of improving employee performance. Participants explained that continuous training was required to ensure that trainees continued to deliver task performance and adaptive performance. Respondents view were supported by several writers (for example, Kraiger et al., 2004; Kraiger, 2003; Holton, 1996). Respondents said that their companies usually assessed employee performance both before and after training in order to evaluate the degree of change and therefore the effectiveness of the training. They responded that employee performance was the ability of an employee to accomplish task outcomes based on the expectations of the organisation, an explanation also found in Holton (1996). Employee performance focused on the performance outcomes of a training programme and was particularly relevant to objective based evaluation. Interviewee C21 shared their views about employee performance and training, which were similar to the responses of interviewees C6, C14, C18, C24 and C29:

*Training programmes are significantly and useful as a way to enhance employee performance. For example, role play and workshop training put a learner in an improved position to control their overall work. It made employee good progress towards the achievement of the target set for them. In fact, we not only measure performance outcomes of a training but also review annual performance for the benefit of future decisions.*

The code employee performance initially emerged directly from participant responses during open coding and was classified as a descriptive code (table 4.23) but during subsequent axial coding it was classified as a category (table 4.24).

Table 4.23: Example of an interview statement and the resultant descriptive code employee performance

Case ID and Quote	Descriptive code
C6, Management put more effort into the evaluation of employee performance at the end of every year when they do an annual review of each employee. Moreover, we also identify from employee performance review whether or not employee work performance increased as a result of training.	Employee performance

The conditional relationship guide was used in the identification of the hierarchical relationship between the properties task performance and adaptive performance and the category employee performance. For example, the relationship between task performance and employee performance is shown in table 4.24 below.

Table 4.24: The conditional relationship guide established and verified the relationship between the code task performance and employee performance as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Task performance	Task performance refers to the factors employee task proficiency, communication proficiency, leadership proficiency and management proficiency and the degree that they increased as a result of training.	During task proficiency, During communication and leadership activity, When management proficiency was assessed	In the workplace, Different job activities, Performing job during changed situations, Performing managerial job	Attending training, Training needs assessment, Training objectives validity	Become versatile after attending training, Performing different job rotations, Increased work efficiency	Employee performance

Documents were also consulted in relation to the assessment of employee performance in companies A3, A4, A7 and A16 (for example, appendix O) which were used to better understand and validate the category employee performance identified through the coding process.

#### 4.3.4.1 Properties and dimensions of the category employee performance

Two properties of employee performance (task performance and adaptive performance) were identified during the analysis and these are discussed below along with their associated dimensions.

##### Property 1: Task performance

Task performance emerged during the coding process as a property of the category employee performance. Four dimensions of task performance were identified through the coding process, task proficiency, communication proficiency, leadership proficiency and management proficiency. Respondent C18 commented that:

*Our company organises training for employee who is willing to attend training ensuring that quality work and proficiency are delivered. Subsequently, improved task performance is expected from them which in turn inevitably have an impact on employee performance. One of the main purposes of an executive training programme is to boost create employee performance. Our company believes that such a training programme would be significantly useful to enhance employee task performance. Therefore, our company evaluates the value of training to ensure that task performance specifically improved.*

The code task performance emerged during open coding from jotted down notes, which led to the identification of the subcategory task performance (table 4.25) but during the subsequent axial coding it was classified as a property.

Table 4.25: Example of an interview statement, open codes, jotted down notes and the subcategory task performance

Case ID and Quote	Open codes, jotted down notes	Subcategory
C18, Obviously, training can increase task performance, therefore, it is required to identify the factors that enhance task performance. For example, work proficiency, communication skills and management proficiency are all required for this.	Task performance, Work proficiency, Communication skills, Management proficiency	Task performance

Respondents C3, C2, C5, C7, C10, C12, C15, C18, C25, C27, C33 and C38 explained that in their experience task performance was the consequence of increased task proficiency, communication proficiency, leadership proficiency and management proficiency. All factors which were assessed in the textile industry in order to evaluate employee task performance. Task proficiency also appeared in the response of participant C12:

*Task proficiency is the work capability of an employee. It is the ability to perform the core tasks or technical tasks which are central to the job. For example, selling a product, providing customer service, accounting activity, doing word processing, writing/reviewing maintaining documents, designing products etc.*

Several participants indicated that their organisations occasionally arranged leadership development training with the objectives of creating more focused leaders and strengthening the interpersonal relationships between them. Respondents also suggested that employees could learn to be good leaders through management and leadership training. The result being that they would become more effective in directing, guiding, coordinating and motivating subordinates (views supported by McDowall and Saunders, 2010). For example, communication proficiency and leadership proficiency appeared in the

response of participant C33:

*You can say that your employee performance increased when supervision improved. That includes training in topics such as leadership proficiency, directing, coordinating and motivating subordinates. Plus, providing proper feedback when necessary and also maintaining good working relationships and communication is an essential part of any job. Thus, the supervisor or manager who can lead and manage effectively and in doing so maintain good communications verbally or in writing is efficient and such capability is vital in achieving high performance.*

Management proficiency was described by participants as the ability of management to understand organisational dynamics and to perform their functions properly and smoothly (views supported by McDowall and Saunders, 2010). They also noted that the three main functions found in the work of competent managers were anticipating and planning, making decisions and controlling. For example, the following reflected interviewee C2's experience:

*When an employee attends a training programme, no matter what kind of training, the employee would become more dutiful and responsible. More importantly for managers and supervisors their managerial skills and work proficiency would also improve as a result of training. Actually, I should say that effective management training enhances the work performance of all employees.*

During axial coding, the codes task proficiency, communication proficiency, leadership proficiency and management proficiency were analysed for common themes and brought together as dimensions of the property task performance during the process of parent or hierarchical coding. Consequently, the code task performance was assigned as a property under the higher category employee performance during the process of subsuming several similar codes under one major code (figure 4.14).

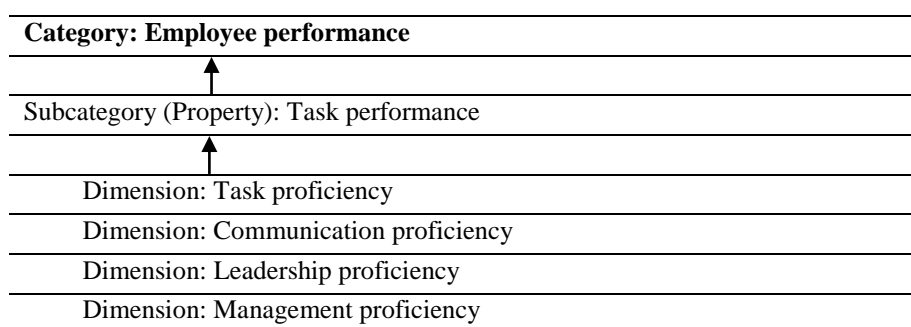


Figure 4.14: Illustration of hierarchical coding scheme for the property task performance and its subsumed dimensions



## Property 2: Adaptive performance

Adaptive performance emerged during the coding process as the second property of the category employee performance. Three dimensions of adaptive performance were identified, interpersonal adaptability, managing work stress and managing crisis situations. Participant experience was that adaptive performance was the performance outcome of a successful training programme. Their views about the impact of training in creating adaptive performance were also supported by the work of Abdul (2011). Broadly, the view of respondents (supported by Charbonnier-Voirin and Roussel, 2012; Abdul, 2011; Pulakos et al., 2000) was that adaptive performance was created through the increased actions and interactions between interpersonal adaptability, managing work stress and managing crisis situations following training. For example, participants explained that the use of case studies in training produced employees that were better able to perform their jobs more effectively. That was because they became more flexible and adaptable in dealing with stress and the crisis situations (their views supported by Charbonnier-Voirin and Roussel, 2012; Abdul, 2011). Participant C10 made the following observation that also broadly reflected the experience of participants C8, C12, C14, C17, C25, C27, C32, C39 and C42:

*Employees who attended successful case study training were able to perform their jobs more effectively than earlier, specifically, managing crises situations. That particularly enhanced the quality of employee adaptability in being able to work in different situations.*

The code adaptive performance emerged during open coding (table 4.26) but became a property during axial coding. The codes interpersonal adaptability, managing work stress and managing crises situations also emerged from the analysis of interviews during open coding (table 4.26). These codes were subsequently classified as dimensions of the property adaptive performance during axial coding through the use of the conditional relationship guide (for example, table 4.27).

Table 4.26: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C39, A training course is significantly useful to enhance employee adaptability. A learner learns to adapt to a new environment, handle any difficult situation confidently and managing work stress. If an organisation is able to identify the degree to which employees are adaptive in the performance of their jobs, it could be regarded as the training was successful.	Employee adaptability, Adapt to a new environment, Managing crises situations, Managing work stress, Adaptive to perform their jobs, The success of a training programme

Respondents C3, C5, C8, C10, C12, C15, C17, C21, C25, C28, C31, C32, C36, C38, C39 and C42 explained that employee interpersonal adaptability, managing work stress and

managing crisis situations were usually assessed to evaluate the success of training in their companies. Interviewees reported that a competent employee would have the ability to handle complex and difficult situations. That would usually be achieved through training on how to deal with stress and crisis situations (views supported by Lisbon et al., 2016; Abdul, 2011; Griffin et al., 2007). For example, interviewee C38 reported that:

*You probably know that a trained employee is always more effective than the employee who couldn't get training. They are more able to handle the demands of their job and any crisis situations than previously. No doubt the employee performance is improved.*

Interviewee C31 thought that adaptive performance was part of interpersonal adaptability:

*A competent worker gains a boost after training and is better able to accomplish a task more effectively. Basically, they become more flexible and adaptive. Adaptability is a kind of skill that makes employee ability to work within a flexible job description and also gives them the ability to adapt to changing situations.*

The conditional relationship guide was also used in the identification of the hierarchical relationship between each of the dimensions interpersonal adaptability, managing work stress and managing crisis situations and the property adaptive performance. For example, the relationship between interpersonal adaptability and adaptive performance is shown in table 4.27.

Table 4.27: The conditional relationship guide established and verified the relationship between the code interpersonal adaptability and adaptive performance as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Interpersonal adaptability	Adaptability is a kind of skill that improved employee ability to work within a flexible job description and also improved their ability to adapt to changing situations.	During different solutions, Managing changing situations, Play different roles, Facing any situation to solve different problems	In the workplace, Performing different jobs role, Performing job during changing situations	Attending training, Become adaptable, Facing changing situations, Need to create and rely on flexible job	Become versatile after attending training, Become flexible, Become adaptable, Ability to adapt to changing situations, Performing job rotation	Adaptive performance

The codes interpersonal adaptability, managing work stress and managing crisis situations were brought together as dimensions of the property adaptive performance during the process of parent or hierarchical coding described previously. Consequently, the code adaptive performance was assigned as a property under the higher category employee performance during the process of subsuming several similar codes under one major code (figure 4.15).

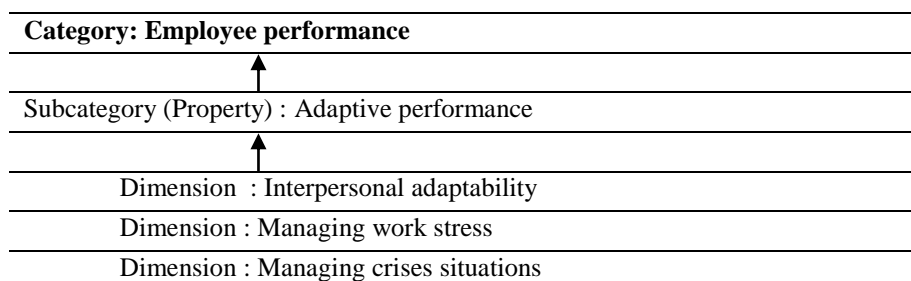


Figure 4.15: Illustration of the hierarchical coding scheme for the property adaptive performance and its subsumed dimensions

### 4.3.5 Category E: Employee commitment

Employee commitment emerged as a category from participant descriptions of the factors to be included when training programme outcomes were measured. During analysis, four properties and eleven dimensions of it emerged. The hierarchical relationship between them is included as figure 4.16 and discussed below.

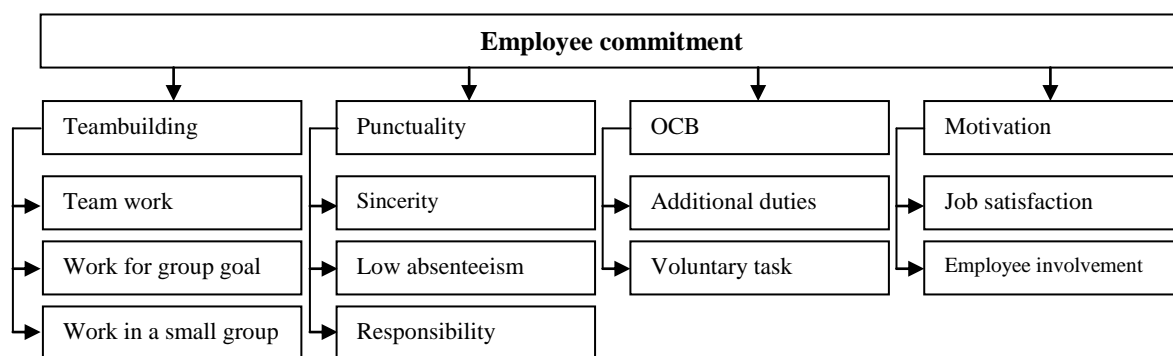


Figure 4.16: Properties and dimensions of the category employee commitment

*Operational definition:* Employee commitment refers to the degree to which trainees are committed to their job and organisation as a result of the training that they receive.

The operational definition was created through the use of an analytic memo which helped to amalgamate individual answers from participants (table 4.28 and section 3.6.5 for an explanation of the process). Most respondents (26 out of 45) said that employee commitment could be assessed to evaluate the value of training. In their answers, respondents talked about how different training could contribute to teambuilding, the improvement of trainee

punctuality and an improvement in levels of trainee motivation (views supported by Kooij et al., 2010; Al-Emadi and Marquardt, 2007; Brum, 2007; Owens, 2006). Respondents also suggested that it could improve the level of organisational citizenship behaviour (OCB) among trainees, a view supported by Ahmed (2011). Participants explained that the objectives of coaching, the committee assignment approach to on the job training, induction training and seminar, or behavioural modelling training were particularly relevant as ways to improve levels of employee commitment (table 4.28). Respondent views were supported by several writers (for example, Ahmed, 2011; Kooij et al., 2010; Al-Emadi and Marquardt, 2007). Respondents also thought that employee commitment was a behavioural outcome of a training programme and would be relevant to objectives based evaluation. For example, respondent C18 made the following observation:

*C18, Twice a year, I usually attend different types of training session, mostly provided in-house. As a result, I have developed strong feelings about performing my duties sincerely. Obviously, I am committed to my job. I believe that as employee get committed result in a positive change in their behaviour and behavioural outcomes of a training course.*

Table 4.28: Analytic memo, reflecting the operational definition of the category employee commitment

<b>Code definition: employee commitment</b>
<p>When employees attend a variety of training programmes, for example, on the job training job such as job rotation, apprenticeship, coaching and off the job training including induction, lecture, workshop, seminar, etc. They attend a training institute, training provided inside the company, or training provided abroad, all of which allows trainees to build their confidence and make them more committed to their jobs. When the company provides training to employees, they have some common objectives and they assess the training based on those objectives. Companies assess employee commitment to evaluate the success of training programmes. Employee commitment may refer to the degree to which employee are mentally connected to their job and company.</p> <p>Employees who attended a training programme are assessed on the extent to which they are connected to their job in relation to teambuilding, punctuality, OCB and motivation.</p> <p>They assess trainee team building skills in terms of teamwork, work towards group goals, and their ability to work in a small group. They also assess employee attendance in terms of labour turnover, punctuality and tendency to sacrifice their own interests to support the greater good. The assessment is carried out based on OCB including willingly accepting additional duties and undertaking voluntary tasks. They assess trainee motivation in terms of job satisfaction and employee involvement.</p> <p>Employee commitment frequently emerged in the data in participants' own words as an in vivo code during open coding and then the code employee commitment was confirmed as a category during axial coding after 25 interviews.</p> <p>10 April 2015</p>

Extracts from two interviews (respondents C10 and C22) are provided below to illustrate the source material as they contain views about the category employee commitment:

C22, *There is no doubt that employee commitment significantly improved after attending training. What if company could assess this to know the value and performance of training? It would obviously be useful in enhancing teamwork. These would assess the degree to which employees were committed after attending training and used to evaluate whether objectives of the training programme were achieved. It reflects the commitment to teambuilding, maintaining harmony in teamwork relationships and punctuality.*

C10, *Training may build up employee commitment. It fosters a committed employee, those involved in supporting and cooperating with each other. It is meaningful in building teamwork and punctuality. I suppose commitment may be used in training evaluation.*

#### **4.3.5.1 Properties and dimensions of the category employee commitment**

Four properties of employee commitment (teambuilding, punctuality, OCB and motivation) were identified during analysis and are discussed below along with their associated dimensions.

##### **Property 1: Teambuilding**

Teambuilding emerged during the coding process as a property of the category employee commitment. Three dimensions of teambuilding were also identified, teamwork, work for group goals, and work in a small group. The code teambuilding originally emerged during open coding but became a property during axial coding. Teambuilding was apparent in the interview data of several respondents. For example, in the extract below participant C27 suggested that the committee assignment approach and management development training were effective means through which to facilitate commitment to work in a team (views supported by Lisbon et al., 2016; Brum, 2007; Kooij et al., 2010).

*After joining here as a manager, I had to attend a committee assignment approach based management development training course. Its purpose was to build teambuilding capacity. I have been working as an assistant general manager since 2005. I have developed myself professionally and personally. I found that good working environment is that of a family and actually, we all try to create this to work more effectively together in a team.*

Participant C10 suggested that teambuilding may be enhanced through attendance at a workshop based training session, views which were also found in the answers of participants C5, C15, C24, C33 and C38:

*Actually, training may enhance teambuilding capacity. Thus, we would be able to manage work in a small group in the office. Teamwork can be fostered in an environment based on*

*creating teambuilding in which all people are committed to achieving the team and organisational goals. For example, teamwork may begin in a workshop training session where employees get involved in a group work. This involvement in a group work and group decision may increase empowerment and teamwork.*

Participant suggested that management development training was potentially enhanced employee commitment to work in a group (views supported by Lisbon et al., 2016). Teamwork, work for group goal and work in a small group are all ideas that appear in participant C10's comments:

*Teambuilding capacity can be achieved through a management development training session. Employees deliberately engages in a group work in which they work effectively together as a team in order to attain group goals. Specifically, when they work in a small group, they become more co-operative with each other.*

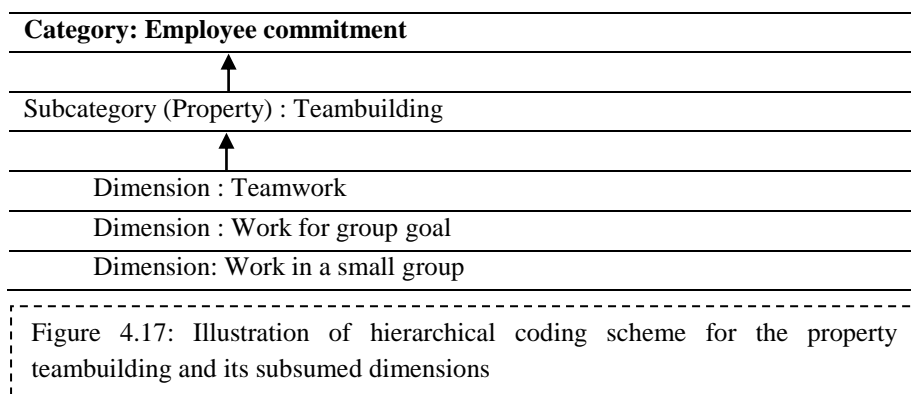
The conditional relationship guide was used to identify the hierarchical relationship between the dimensions teamwork, work for group goals, and work in a small group and the property teambuilding. For example, the relationship between teamwork and teambuilding is shown in table 4.29.

Table 4.29: The conditional relationship guide established and verified the relationship between the code teamwork and teambuilding as the consequence of it.

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of using the code
Team work	The process of working in a group supporting each other.	During workshop training, Work in a small group, Supporting peers in group work, Work together as a family, Work for group goals, Work during apprenticeship	Inside the company, In a team, Brain storming workshop, Workshop training session, Classroom training session, Meeting place	Build up capacity, Work effectively together, Cooperation, Collaboration, Produce quality work	Engaging in group work, Supporting peers, Sharing ideas, Contributing to group decision, Creating group performance	Teambuilding

The code teamwork, work for group goals, and work in a small group were brought together as dimensions of the property teambuilding during the process of parent or

hierarchical coding. Consequently, the code teambuilding was assigned as a property under the higher category employee commitment during the process of subsuming several similar codes under one major code (figure 4.17).



### Property 2: Punctuality

Punctuality emerged during the coding process as the second property of the category employee commitment and contained three dimensions, sincerity, responsibility and low absenteeism. Respondents suggested that punctuality referred to an employee being on time for work, that they showed responsibility towards their work and that they had a low absenteeism rate. Subsequently, reduced absenteeism would contribute to improved company effectiveness and performance. Participant C18 made the following observation which was also reflected in the views of participants C3, C7, C11, C22 and C27 (views supported by Kooij et al., 2010; Al-Emadi and Marquardt, 2007):

*You would understand that training had been successful, if your employees become punctual or responsible after attending a training session. If they are punctual while they perform their job, it will indicate that they are responsible and committed to their job.*

The code punctuality emerged from jotted down notes created during the analysis of interviews during open coding (table 4.30).

Table 4.30: Example of an interview statement, open codes, jotted down notes and the subcategory punctuality

Interview quote	Open codes, jotted down notes	Subcategory
C3, Employee absenteeism goes down dramatically after attending a training programme. The trainees would be much more regular in attending work and performing their job and the task assigned to them. I am in charge here, keeping finance record every day and I receive regular training which gives me a feeling of willingness to perform on time without any absence and I feel this leads to sincerity in doing my work as I am attending the office every day.	Absenteeism goes down, Attend work on time, Perform job on time, Keeping record every day, Perform without absence, Sincerity	Punctuality

The codes sincerity, responsibility and absenteeism emerged during open coding. These two codes were reflected in the views of seven participants C7, C10, C15, C22, C31, C33 and C35. For example, respondent C33 reported that:

*I would say when an employee regularly goes to work and does their allotted tasks on time, they are sincere in performing their tasks, and these are the indications of punctuality. A punctual employee generally provides support to peers, which demonstrates that the individual is dedicated to their job, that they are interested in their work and this is how they show responsibility. Punctuality in employees shows a sense of professionalism and commitment to the job and company.*

The code absenteeism was reflected to the views of eight participants C6, C8, C10, C22, C28, C30, C33 and C38. For example, respondent C6 suggested that:

*I do believe that employee absenteeism can be minimised, if continuous training is provided. That is perhaps because it enhances their career development potential and options. Actually, training may build trainee responsibility towards their job. A trainee would more likely to be dutiful and responsible when performing their job than they had been previously.*

During axial coding, the codes sincerity, responsibility and absenteeism were analysed for a common theme and brought together as dimensions of the property punctuality during the process of parent or hierarchical coding described previously. Consequently, the code punctuality was assigned as a property under the higher category employee commitment during the process of subsuming several similar codes under one major code (figure 4.18).

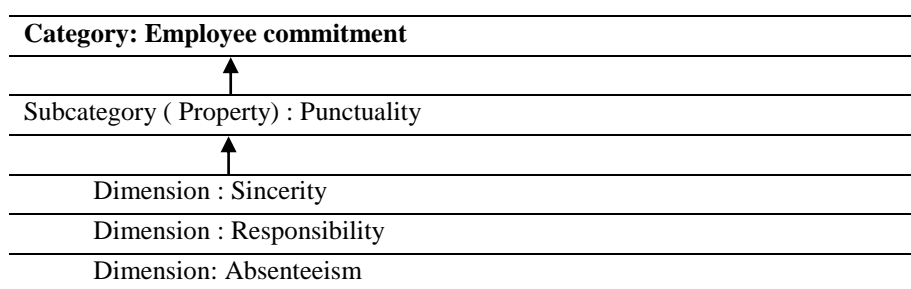


Figure 4.18 Illustration of the hierarchical coding scheme for the property punctuality and its subsumed dimensions

### **Property 3: Organisational citizenship behaviour (OCB)**

OCB emerged during the coding process as the third property of the category employee commitment and contained two dimensions, additional duties and undertaking voluntary tasks. Participants indicated that as a result of the development of OCB through training,



employees tended to be more involved undertaking additional duties and voluntary tasks in the workplace, views also found in the work of Ahmed (2011) and Miao (2011). Respondent C15 expressed the following opinion, also reflected in the views of participants C3, C12, C22, C23 and C25:

*Training is the most important human resources practice in terms of creating organisational citizenship behaviour which helps to retain employees for a long time. Employees who get access to training programmes are more likely to have strong feelings supportive of their peers, subordinates or colleagues result in improved behavioural performance.*

The code OCB emerged as a descriptive code during open coding but during axial coding was classified as a property. The codes additional duties and voluntary tasks also emerged during open coding. For example, as evident in the following quote from respondent C24:

*Actually, organisational citizenship behaviour begins to emerge when employees are well trained and devoted towards their jobs. In such a case, the additional work often involves cooperation between employees, extra duties done without any complaint or voluntary assistance provided to others. Sometimes the company organised behavioural training courses to encourage employees to support their peers doing their work, a requirement not prescribed on their job duties. As the additional work involved is done by the workers beyond their required duties, these extra jobs can neither be imposed nor can the individual be penalised if they are not done.*

During axial coding, the codes additional duties and voluntary tasks were analysed for common themes and brought together as dimensions of the property OCB during the process of parent or hierarchical coding described previously. Consequently, the code OCB was assigned as a property under the higher category employee commitment during the process of subsuming several similar codes under one major code (figure 4.19).

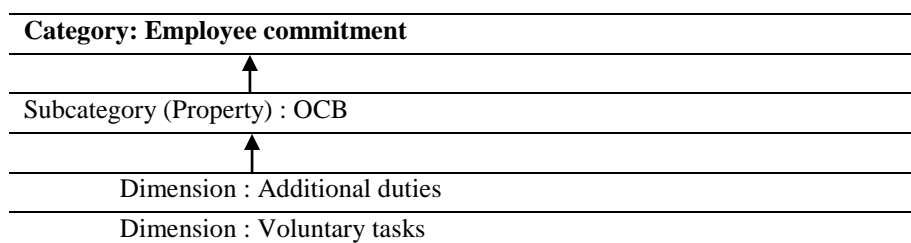


Figure 4.19: Illustration of the hierarchical coding scheme for the property OCB and its subsumed dimensions

#### Property 4: Motivation

Motivation emerged during the coding process as the fourth property of the category employee commitment. Two dimensions of motivation were identified, job satisfaction and employee involvement. Most participants (26 out of 45) expressed the view that the level of motivation displayed by employees following training offered a measurable indicator of achievement (views supported by Ahmed and Baker, 2003; Meyer and Smith, 2000). For example, participant C15 explained that:

*If you assess the extent to which employees are motivated after participating in training, you can easily find out the success of training. But the thing is how do you do it? One way is to understand that when employees are more positive and psychologically involved in their job, it indicates that they are more likely to be motivated towards their job.*

The code motivation emerged from jotted down notes during open coding (table 4.31) but during axial coding it was classified as a property of employee commitment.

Table 4.31: Example of an interview statement, open codes, jotted down notes and the subcategory motivation

Case ID and Quote	Open codes, jotted down notes	Subcategory
C33, I have been working at this company for 15 years, and I had to attend many different training courses. My experience is that training can significantly impact on employee's psychological connection to their work and as a result employees become motivated and satisfied.	Attend training courses, Employee's psychological connection to their work, Motivation and satisfaction	Motivation

The codes job satisfaction and employee involvement also emerged during open coding. Respondents considered that job satisfaction would result in an employee being motivated towards the achievement of goals, a higher level of work satisfaction, improved satisfaction with the supervisor and improved work speed (views consistent with Dockel et al., 2006; Ahmed and Baker, 2003). For example, participant C5 made the following observation:

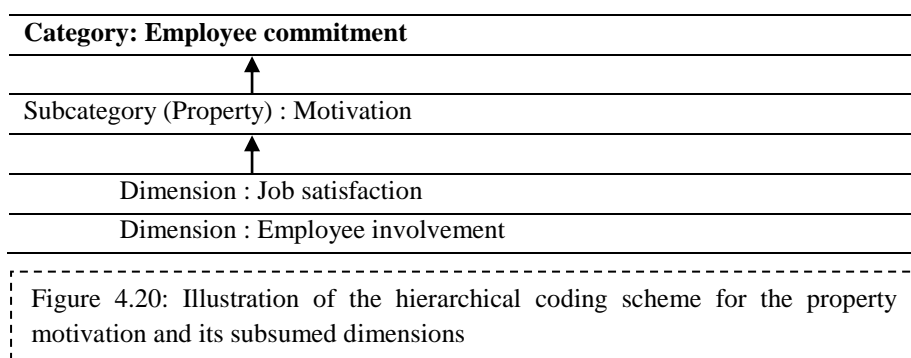
*Training enables employees to understand how their job fits into the company's objectives. Training helps get things right as the way to enhance job satisfaction. Employees better understand how their work contributes to the success of the company; employees become more motivated towards their jobs. This is how they become committed to the job.*

Participants also reported that training enhanced employee involvement in the workplace because trained employees became more involved with their work and the company. Respondents also thought that trained employees would also be more supportive of, and

co-operative with, their peers (views supported by Meyer and Smith, 2000). For example, the following comments from participant C12, points also reflected in the views of participants C17 and C28:

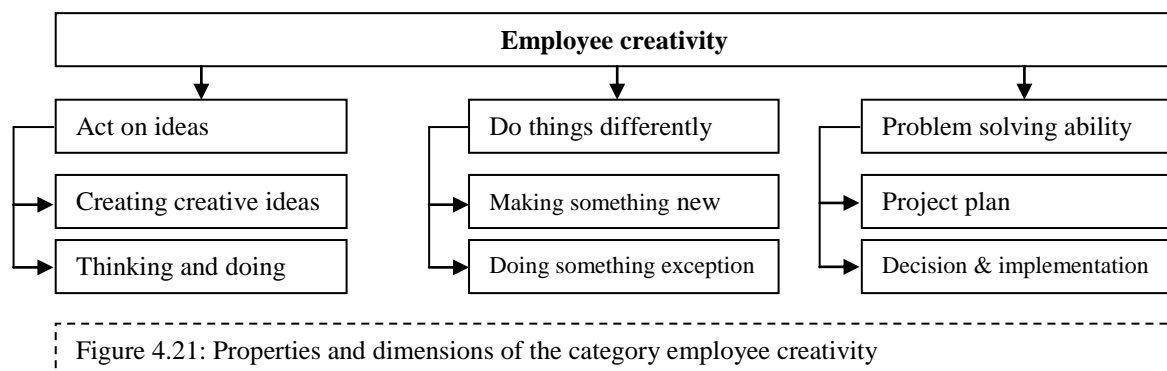
*During a training session, the trainer provides lessons. The trainer encourages trainees to involve in teamwork as a way of engaging in the work process. You know this is how employees are motivated to support their co-workers. Trainers encourage them to participate in decision making about how effective work can be done, so they become engaged in important decisions for the business plan or making suggestion for improvement.*

During axial coding, job satisfaction and employee involvement were brought together as dimensions of the property motivation. The conditional relationship guide was used to clarify the links between the dimensions job satisfaction and employee involvement and the property motivation. The dimensions were analysed for common themes and were grouped together and assigned a higher order label. The code motivation was later assigned as a property under the higher category employee commitment during the process of subsuming several similar codes under one major code (figure 4.20).



#### 4.3.6 Category F: Employee creativity

Employee creativity emerged as a category from participant descriptions of the factors to be included when assessing the effectiveness of training. The category employee creativity contained three properties and six dimensions, shown together with the hierarchical relationship between them in figure 4.21 and discussed below.



*Operational definition:* Creativity was defined as a criterion through which to assess the degree to which trainees improved their ability to act on ideas, the degree to which they did things differently and the level of creative problem solving ability that they displayed as a result of attending a training programme.

The operational definition was created from an amalgamation of individual answers provided by participants through the use of an analytic memo during data analysis (section 3.6.5 and table 4.32). For example, Participant C38 made the following observation:

*Our company very often, specifically twice a year, organises a 3 or 4 day problem solving workshop where employees work together or individually focusing on a critical task provided for them to resolve. This kind of workshop is organised in pursuit of building employee creative ability and also to understand whether employees are innovative or creative in the way that they complete a task and that is also used in the assessment of the performance outcomes of the training activities.*

Table 4.32: Analytic memo, reflecting the operational definition of the category employee creativity

<b>Code definition: Employee creativity</b>
<p>When a company provides training to employees, they have some purposeful objectives behind the design. They should then also assess the training against those objectives. Employee creativity is often such an objective and it can then be assessed to evaluate the success of training.</p> <p>Training can enhance employee problem solving ability, employee’s ability to act on ideas and in doing things differently, which in turn builds up employee creativity. So, employees who attend a training programme can be assessed as to the extent to which they are creative when they perform a job. To assess problem solving ability in relation to project planning, problem solving skills and decision making and implementation. To assess act on idea in relation to creating creative ideas and thinking and doing. To assess doing things differently based on keep looking for a new way of doing things, making something new and doing something exceptional.</p> <p>The code employee creativity frequently emerged in the data as participants’ own words, as an in vivo code during open coding and then the code employee creativity was confirmed as a category during axial coding.</p> <p>12 April 2015</p>

Just over half of respondents (23 out of 45) suggested that employee creativity could be used to evaluate the value of training. Participants shared their experiences about how employee creativity was reflected in job behaviour. Respondents C25 and C42 explained that training fostered creativity which in turn contributed to the achievement of key organisational objectives (views supported by Andrew and Criscuolo, 2013). Specifically, participants suggested that workshop training, seminars and role play training were particularly useful in encouraging the improvement in levels of employee creativity in the workplace. Consequently, they argued that if employee creativity increased following

training, it meant that a significant element in the performance outcomes of the training had been achieved. Respondent views were supported by several writers (for example, Andrew and Criscuolo, 2013; Wang, 2013). Employee creativity focused on the performance outcomes of a training programme and was particularly relevant to objective based evaluation. Three properties were identified within the category employee creativity, namely act on ideas, do things differently and problem solving ability.

The code employee creativity emerged during open coding as a descriptive code from participant responses (table 4.33) but during subsequent axial coding it was classified as a category.

Table 4.33: Example of an interview statement and the resultant descriptive code employee creativity

Case ID and Quote	Descriptive code
C30, I suppose, we may assess the effectiveness of a training programme by arranging a brainstorming session where we would understand the extent to which employees are creative in a particular situation as a result of the training.	Employee creativity

#### 4.3.6.1 Properties and dimensions of the category employee creativity

Three properties of employee creativity (act on ideas, doing things differently and problem solving ability) were identified during the analysis and these are discussed below along with their associated dimensions.

##### Property 1: Act on ideas

Act on ideas emerged during the coding process as a property of the category employee creativity. Two dimensions of act on ideas were identified, creating creative ideas, and thinking and doing. For example, participant C10 stated that:

*Creativity refers to acting on ideas in terms of turning new and imaginative ideas into reality. Such employees are more likely to have an ability to perceive the things in a new way and to generate a solution to solve the problems.*

The code act on ideas emerged through open coding but during subsequent axial coding it was classified as a property (table 4.34). Several respondents explained that when employees were creative it was more likely that they would be able to solve problems in creative ways (views supported by Andrew and Criscuolo, 2013; Wang, 2013). The codes creative ideas and thinking and doing also emerged during open coding from the analysis of interviews. Respondent C38 provided the following description about how brainstorming workshops could foster the ability in trainees to develop creative ideas:

*Creative ideas or thinking and doing are only effective when employees can work on their*

ideas. Therefore, a company has to organise inside or outside brainstorming workshop where employees can generate and implement their ideas. A failure to do means that the company will not get the benefit from creative employees.

Similarly, creative ideas and thinking and doing appeared in respondent C42's description:

*I provide training to mid-level employees in order to develop creative ideas. Actually, if you have ideas but don't act on them, you are not creative but imaginative. In developing creative ideas you have also to be thinking and doing. However, management has to provide an appropriate environment to encourage employees to implement their ideas.*

The analytic memo presented in figure 4.22 was created during axial coding to capture thoughts and reflect on act on ideas. It focussed on providing a validity check of researcher thinking processes.

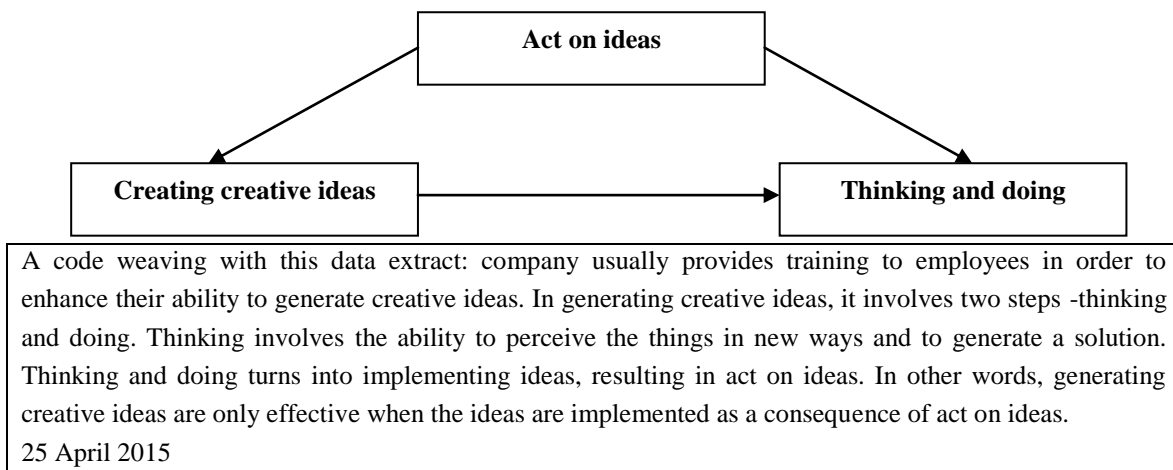


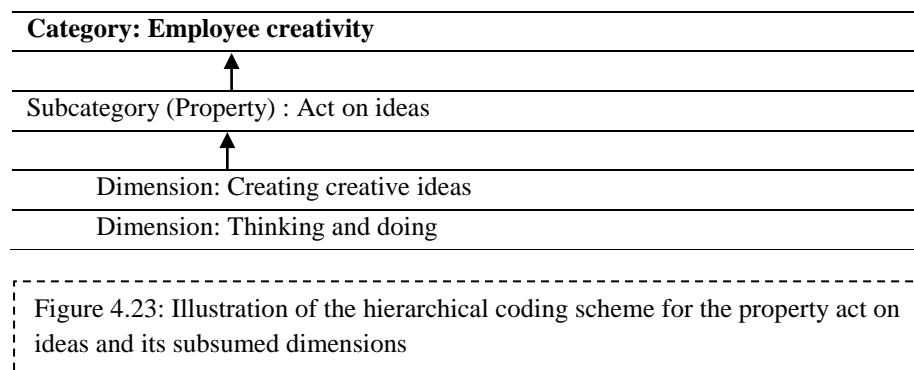
Figure 4.22: Network: an analytic memo sketch about the code act on ideas

The conditional relationship guide was used to identify the hierarchical relationship between the dimensions creative ideas and thinking and doing and the property act on ideas. For example, the relationship between creative ideas and act on ideas is shown in table 4.34.

Table 4.34: The conditional relationship guide established and verified the relationship between the code creative ideas and act on ideas as the consequence of it.

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of using the code
Creating creative ideas	The process of generating ideas in the workplace.	Facing problems and difficult situations, Workshop training, Brainstorming training	Inside the company, Inside and outside workshop training session, Brainstorming	Solving critical task, Generate ideas, Thinking and doing,	Solving critical task, Applying creative ideas, Brainstorming	Act on ideas

The codes creative ideas and thinking and doing were brought together as dimensions of the property act on ideas during the process of parent or hierarchical coding described previously. Consequently, the code act on ideas was assigned as a property under the higher category employee creativity during the process of subsuming several similar codes under one major code (figure 4.23).



### **Property 2: Doing things differently**

Doing things differently emerged during the coding process as the second property of the category employee creativity. Two dimensions of doing things differently were identified, making something new and doing something exceptional. For example, respondent C44 made the following comment:

*Whether trainee is capable of making things differently, making things new or modifying an existing design would be something exceptional.*

Participants explained that when employees were creative, they were more likely to be able to do things differently in any given time period. They explained that employees usually performed tasks in the same way over a long period of time, but after training they should be enabled to do the same tasks differently and more effectively, perhaps even in a shorter period of time (views supported by Andrew and Criscuolo, 2013; Wang, 2013; Tarek, 2008). To be successful, such intentions required that following training designed to encourage that outcome, employees needed appropriate encouragement and a supportive atmosphere to produce creative work. The code doing things differently emerged during open coding from the analysis of interviews but during subsequent axial coding it became a property. The codes making something new and doing something exceptional also emerged during open coding from the analysis of interviews. The following two statements illustrated the views of participants C24 and C42 in relation to the dimensions, making something new and doing something exceptional in relation to the property doing things differently:

C24, *A trainee acquire new skills through a training session intended to encourage trainees to keep looking for a new way of doing things and doing something innovatively. But for the innovative work, a sound working atmosphere and conditions are required. C42, Employees may be able to bounce an idea around, but they may not be familiar with doing something differently when they perform their work. Therefore, to assist with this, a company might organise training sessions in formal techniques such as brainstorming.*

The codes making something new and doing something exceptional emerged during axial coding as dimensions of the property doing things differently. The conditional relationship guide was used to clarify the links between the property act on ideas and the dimensions making something new and doing something exceptional. The dimensions were analysed for common themes and were grouped together and assigned the higher order label doing things differently. The code doing things differently was later assigned under the higher category employee creativity during the process of subsuming several similar codes under one major code (figure 4.24).

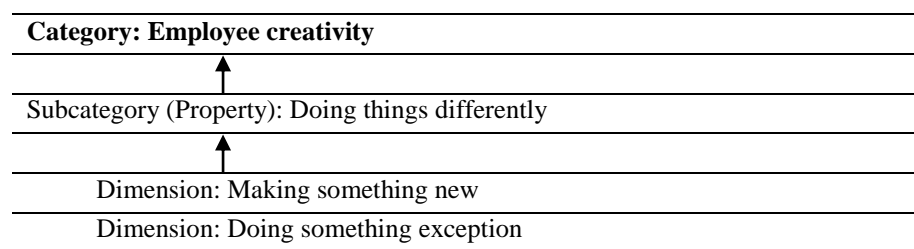


Figure 4.24: Illustration of the hierarchical coding scheme for the property doing things differently and its subsumed dimensions .

### 3 Property: Problem solving ability

Problem solving ability emerged during the coding process as the third property of the category employee commitment. Two dimensions of problem solving ability were identified, project planning and decision and implementation. Problem solving ability appeared in participant C25's response:

*I think trainees improved their creative problem solving ability and skills as a result of attending training programmes. So, I suppose measuring their creative problem solving ability would be vital in order to assess the performance outcomes of a training programme.*

The code problem solving ability emerged during open coding as a descriptive code from participant responses (table 4.35) but during subsequent axial coding it was classified as a property.



Table 4.35: Example of an interview statement and the resultant descriptive code problem solving ability

Case ID and Quote	Descriptive code
C42, You can say an employee is creative when an employee makes a project plan and implements those plans using their problem solving ability.	Problem solving ability

**4.4 Data analysis for the category: Training evaluation causal conditions**

Causal conditions represent events, incidents or happenings that lead to the occurrence or development of a phenomenon (Strauss and Corbin, 1998). This section is concerned with the casual conditions that lead to the phenomenon under study - training evaluation. Participants identified two categories related to causal conditions that determined the context of training evaluation and are discussed below. The two categories that emerged through coding were training need assessment and training objectives validity. Each of these categories contained properties that provided meaning and richness to them. The causal conditions identified determined the training evaluation contexts which influenced and led to the purpose and intention for training programme evaluation. The categories identified emerged during open coding directly from participant responses but during subsequent axial coding they were confirmed as categories of the training evaluation context (explained in subsections 3.6.3.1, 3.6.3.2 and section 4.4 and its subsections).

**4.4.1 Category 1: Training needs assessment**

Training needs assessment emerged as a category from participant descriptions of the events that determined the training context that created the requirement for the evaluation of training programme outcomes. During analysis, one property and three dimensions of training needs assessment emerged and the hierarchical relationship between them is shown in figure 4.25 and discussed below.

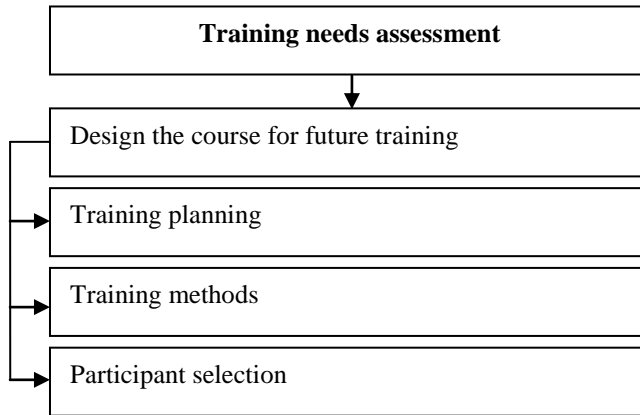


Figure 4.25: Property and dimensions of the category training needs assessment

*Operational definition:* Training needs assessment represents the causal condition that determines the training evaluation context and leads to the need for the evaluation of a training programme.

The operational definition was created using an analytic memo during analysis from an amalgamation of individual participant answers (section 3.6.5). Participants explained that training needs assessment, design the course for future training, training planning, training methods and selection of participants led to the requirement to evaluate training programme outcomes (views supported by Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2000; Kaufman, 1995; Hamblin, 1974). For example, the analytic memo in table 4.36 reflected the views of participant C12.

Table 4.36: Research question base analytic memo, reflecting the causal conditions of the category training needs assessment

Q4	Training needs assessment
<p>What is the reason for the assessment of employee learning or reason to evaluate a training programme?</p>	<p>Training needs assessment represents the causal condition that determines the contextual conditions that requires the evaluation of training programme outcomes.</p> <p>Participants explained that training needs assessment was the main causal reason to assess employee learning and outcome levels which ultimately lead to the evaluation training programme outcomes being assessed. For example, interviewee C12 made the following observation:</p> <p><i>C12, An initial assessment of training needs sought to focus on the arrangement of a training programme evaluation system. Training need assessment causes the evaluation of training programmes because the evaluation of trainee knowledge, skills and attitudes could identify a training need in future. It uses this information to determine if and how the issue can be improved by training. It includes deciding whether or not the needs of trainee knowledge, skills and attitudes are met and also to identify the future training need. Training needs assessment looks specifically at the skills, knowledge and attitudes of potential trainees.</i></p> <p>Participants C2, C7, C8, C11, C12, C17, C22, C25, C33, C37, C41 and C42 used the word training needs assessment. The code emerged in the data as participant descriptive code and also an in vivo code in the first part of the coding cycle and producing an analytic memo helped to identify the code which was then confirmed as a category during axial coding through the use of the conditional relationship guide.</p> <p>17 May 2015</p>

The code training needs assessment emerged during open coding through the use of jotted down notes from the analysis of interviews, which led to the identification of the category training needs assessment (table 4.37). But during the subsequent axial coding and the use of the conditional relationship guide, it was classified as a category (table 4.38)

Table 4.37: Example of an interview statement, open codes, jotted down notes and the category training needs assessment

Case ID and Quote	Open codes, jotted down notes	Category
C8, Training needs assessment is the significant reason for the evaluation of a training programme. Therefore, it provides the basis through which to identify the design for a future training course. Also, it is required to identify potential knowledge and skills of employees to identify potential participants who need training. Therefore, it provides the basis the design a plan for the training programme.	Training needs assessment, Design a training course, Participants who need training, Design a plan for the programme	Training needs assessment

Most respondents (29 out of 45) said that training needs assessment was considered a causal context which justified the need for training and therefore, the need to measure the success of training programmes, views supported by Kraiger et al. (2004).

Table 4.38: The conditional relationship guide established and verified the relationship between the code design the course for future training and training needs assessment as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of the code
Design the course for future training	Design the course for future training is the part of training design and planning process which leads to arrange an effective training needs assessment.	Before delivery of training, Arrange effective training design and planning, Training needs assessment	Human resource department of the company, Training and development department	Effective training programme, Identify training needs analysis, Finding a process for appropriate training design, The selection of participants	Planning, design and implementation process for training and development, Manager would be required to make a plan	Training needs assessment

#### 4.4.1.1 Property and dimensions of the category training needs assessment

One property of training needs assessment (design the course for future training) was identified during the analysis and will be discussed below along with its associated dimensions.

##### Property 1: Design the course for future training

Design the course for future training emerged during the coding process as a property of the category training needs assessment. Three dimensions of design the course for future training

were identified, training planning, training methods and participant selection. Participants C2, C5, C7, C8, C12, C15, C18, C25, C26, C33, C39 and C42 expressed the view that design the course for future training involving training planning, training methods and participant selection and were the causal conditions which lead to the requirement for the evaluation of training programmes (views supported by Philips and Philips, 2016). The following statement reflected the views of participant C25 in relation to the property design the course for future training.

*The design of a training course for the future required the identification of essential factors for the evaluation of a training programme. These factors included training planning, training methods and the selection of the right participants. So, they should be included to contribute to effectively training design. Training needs identification helps to identify the right person for the training and also choosing suitable methods for its delivery. Importantly, if you can find the proper person to provide the delivery of needs based training that would positively impact on the entire training programme process.*

The code design the course for future training emerged during open coding (table 4.39) but it became a property during axial coding. The codes training planning, training methods and participant selection also emerged during open coding (table 4.39). These were subsequently classified through the use of the conditional relationship guide during axial coding as dimensions of the property design the course for future training.

Table 4.39: Example of an interview statement and identified open codes

Case ID and Quote	Open Codes
C2, Design a training course for future training is an essential part of the successful development of a future training needs assessment programme. Design a training course for future training, training methods, and the selection of the right participants are vital for the identification of training needs. This is why, it requires the evaluation of the extent to which these are effectively used in the actual training programme.	Design the course for future training, Training needs assessment, Design the course for future training, Participant selection

During axial coding, the codes training planning, training methods and participant selection were analysed for common themes and brought together as dimensions of the property design the course for future training during the process of parent or hierarchical coding described previously. Consequently, the code design the course for future training was assigned as a property under the higher category training needs assessment during the process of subsuming several similar codes under one major code (figure 4.26).

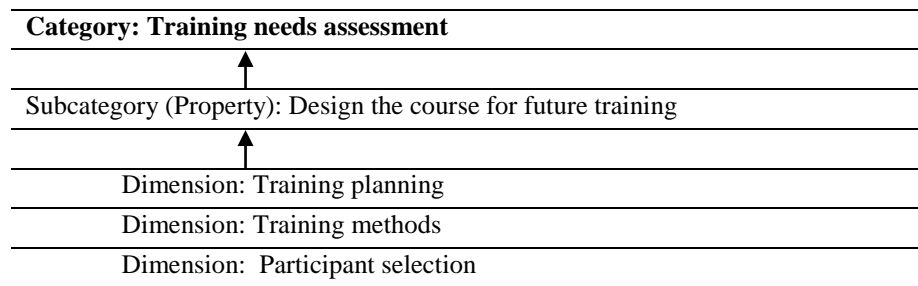


Figure 4.26: Illustration of the hierarchical coding scheme for the property design the course for future training and its subsumed dimensions

#### 4.4.2 Category 2: Training objectives validity

Training objectives validity emerged as a category from participant descriptions of the events that determined training contexts and led to the requirement for training programme evaluation. During analysis, one property and three dimensions of it emerged and the hierarchical relationship between them is shown in figure 4.27 and discussed below.

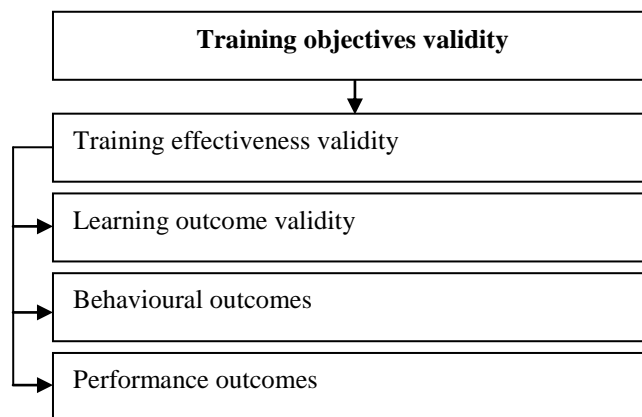


Figure 4.27: Property and dimensions of the category training objectives validity

*Operational definition:* Training objectives validity represents the causal condition that determined the training evaluation context in terms of training effectiveness validity (bounded by learning outcome validity, behavioural outcomes, performance outcomes) which continued to influence, and led to the evaluation of a training programme.

Most participants (34 out of 45) explained that training objectives validity, including training effectiveness validity, led to the requirement for the evaluation of training programme outcomes (views supported by Philips and Philips, 2016; Armstrong, 2012; Laing and Andrews, 2011; Kirkpatrick and Kirkpatrick, 2006; Kaufman, 1995). For example, participant C8 made the following observation:

Actually, it is more obvious and significant to know the validity of the training objectives. Particularly, the extent to which training could meet the desired outcomes from the training course. Thus, there is one significant reason to evaluate a training programme and it is to assess the validity of the acquired employee knowledge, skills and attitudes in relation to job performance. In order to identify the effectiveness of a training programme, it is necessary to arrange the evaluation of the training programme.

The analytic memo presented in table 4.40 was created during axial coding to capture thoughts and reflect on learning outcome validity, behavioural outcomes and performance outcomes and served as a validity check on thinking processes.

Table 4.40: Analytic memo, reflecting the subcategories learning outcome validity, behavioural outcomes, performance outcomes and the category training objectives validity

**Learning outcome validity + behavioural outcomes + performance outcomes = Training objectives validity**

Training objectives validity represents the causal condition that were mediated by contextual conditions in terms of training effectiveness validity (learning outcome validity, KSAs), behavioural outcomes and performance outcomes continued to influence, and lead to, the role of the evaluation of training programme.

Participants explained that training objectives validity leads to the occurrence of evaluating training programme outcomes in terms of learning outcome (KSAs), and training effectiveness validity (trainee behavioural outcomes, trainee performance outcomes). For example, Interviewee C8 made the following observation:

*C8, To assess the effectiveness of training objectives, the evaluation of training programme outcomes need to be organised in order to evaluate learning, behavioural outcomes and performance outcomes of a training programme.*

Participants C2, C3, C8, C12, C16, C18, C24, C25, C26 and C30 used the words learning transfer validity and training effectiveness validity. These codes emerged from the data in participants own words as a descriptive code and also an in vivo code in the first part of the coding cycle and then the code learning transfer validity and training effectiveness validity was confirmed as properties of the category training objectives validity in the second part of the coding cycle in an analytic memo after 30 interviews.

12 May 2015

**4.4.2.1 Property and dimensions of the category training objectives validity**

One property of training objectives validity (training effectiveness validity) was identified during the analysis and is discussed below along with its associated dimensions.

**Property 1: Training effectiveness validity**

Training effectiveness validity emerged during the coding process as a property of the category training objectives validity. Three dimensions of training effectiveness validity were identified, learning outcome validity, behavioural outcomes and performance outcomes. Participants C6, C7, C9, C10, C11, C15, C18, C21, C24, C25, C28, C29, C32,

C36, C39 and C42 expressed the view that training effectiveness validity was the causal condition which determined the context leading to the requirement to evaluate training programmes. Participants explained that training was a significant human resource activity to enhance learning and as such needed to be assessed in order to determine if the objectives and value for money had been achieved (views supported by the work of Philips and Philips, 2016; Armstrong, 2012; Laing and Andrews, 2011; Blume et al., 2010; Alvarez et al., 2004). For example, the following statement reflected the views of participant C42 in relation to the property training effectiveness validity.

*Employee performance focuses on the performance outcomes of training and is particularly relevant to objective based evaluation. It is important to evaluate the effectiveness of a training programme in order to ensure individual production rate and performance is achieved. Providing training is significant to company but it is more important to assess the learning outcomes to identify the extent to which employees transfer what they have learned back to their jobs.*

The code training effectiveness validity emerged during open coding but during subsequent axial coding was classified as a property of training effectiveness validity. The codes learning outcome validity, behavioural outcomes and performance outcomes also emerged from the analysis during open coding (for example, table 4.41). These codes were subsequently, classified and verified as dimensions of the property training effectiveness through the use of the conditional relationship guide during axial coding.

Table 4.41: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C12, Training effectiveness validity causes the need to assess employee commitment, productivity and performance outcomes and also requires that training transfer validity is assessed to understand the extent to which employee learning such as knowledge, skills and attitudes are increased and the extent to which they are using them back in their work. The evaluation of training programmes is required in order to identify whether training objectives are achieved or not.	Training effectiveness validity, Commitment, Productivity, Performance outcomes, Learning outcome validity, Knowledge, skills and attitudes, Training objectives validity

#### 4.5 Data analysis relating to the category: Training evaluation intervening conditions

Intervening conditions act to either facilitate or constrain the processes taken within a specific context (Strauss and Corbin, 1998). Intervening conditions represent general conditions pertaining to the context of the phenomenon under study. One intervening condition (contextual factors) emerged as a category during analysis. This facilitated or constrained the processes taken within those contexts. The category contextual factors

contained a number of properties namely individual differences, work climate and organisational culture that provided meaning and richness to it as discussed below.

#### 4.5.1 Category 1: Contextual factors

Contextual factors emerged as a category from participant descriptions of the events that affected the context and processes for the design and delivery of training and subsequently the evaluation of it. During analysis, three properties and fifteen dimensions of contextual factors emerged. The hierarchical relationship between them is shown in figure 4.28 and discussed below.

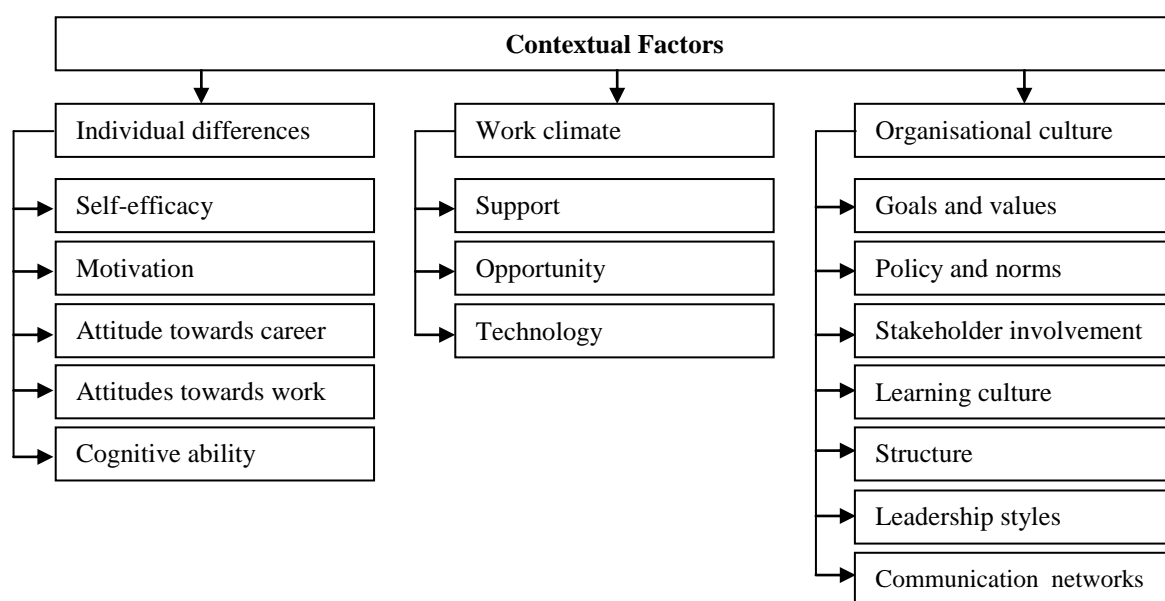


Figure 4.28: Properties and dimensions of the category contextual factors

*Operational definition:* Contextual factors represent the intervening conditions that influence the training evaluation context previously identified (trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity) and subsequently facilitate or constrain the training evaluation process.

Participants explained that the contextual factors of individual differences, work climate and organisational culture influenced the training evaluation context and process. Participants also thought that these intermediate factors should be considered when the training evaluation context and subsequent processes were being assessed (views supported by Blume et al., 2010; Burke and Hutchins, 2007; Salas et al., 2006; Salas and Cannon-Bowers, 2001; Colquitt et al., 2000). According to respondents, that was because those factors significantly influenced the context and so facilitated or constrained the evaluation process. The factors indicated impacted on the degree of success achieved by training programmes through the degree of trainee learning transfer, and subsequently, through the levels of



productivity, performance, commitment and creativity demonstrated in their work (views supported by Blume et al., 2010). For example, participant C33 made the following observation:

*If a trainee's learning and performance has increased after training it doesn't automatically imply that the training was successful. The manager must consider several issues when organising a training programme and subsequently, evaluating a training programme taking them into account. For example, individual differences including employee motivation, ability and attitudes toward career may have a significant impact on successful learning and performance. At the same time, these may significantly facilitate the process for evaluation.*

Participants C8, C12, C15, C33, C40 and C43 suggested that the contextual factors of individual differences, work climate and organisational culture had the potential to impact on the achievement of training outcomes and evaluation processes. Several writers (for example, Blume et al., 2010; Bates and Davis, 2010; Burke and Hutchins, 2007; Salas et al., 2006; Salas and Cannon-Bowers, 2001; Colquitt et al., 2000; Ford and Weissbein, 1997; Cannon-Bowers et al., 1995) also argued that individual characteristics, environmental factors, training design and the nature of interpersonal support in the workplace for skill acquisition or behaviour change had the potential to impact on training transfer and subsequently, training outcomes.

The code contextual factors emerged through open coding during analysis (table 4.42) but became a category during axial coding. The codes individual differences, work climate and organisational culture also emerged during open coding (table 4.42). These codes were subsequently classified as properties of the category contextual factors during axial coding.

The research question analytic memo in table 4.42 reflected the views of participant C40 in relation to the category contextual factors and its identified property individual differences which influenced the training evaluation context and subsequently the training evaluation process.

Table 4.42: Research question base analytic memo, reflecting the intervening condition of the category contextual factor

Q 4	Contextual factors
<p>Are there any factors that influenced the evaluation of training programme outcomes and processes?</p>	<p>Contextual factors represent the intervention condition that has a bearing on the training evaluation context and subsequently, the training evaluation process.</p> <p>Participants explained that contextual factors (e.g. individual differences) continued to influence, and impact on, training programme outcomes and processes. For example, Interviewee C40 made the following comment.</p> <p><i>C40, Individual characteristics have a potential impact on training programme effectiveness. Training and its outcomes are potentially effected by many factors namely employee self-efficacy, their attitudes towards their job, adequate intellectual ability and their motivation to learn. It should be noted that individual characteristics or differences should be considered as important factors that can influence training outcomes and processes.</i></p> <p>Participants C10, C12, C18, C21, C33, C39, C41, C42 and C43 used the words contextual factors. The codes emerged in the data from participants' own words as a descriptive code and also an in vivo code in the first part of the coding cycle and then the code was confirmed as a property of the category organisational context in the second part of the coding cycle after 43 interviews.</p> <p>25 May 2015</p>

#### 4.5.1.1 Properties and dimensions of the category contextual factors

Three properties of contextual factors (individual differences, work climate and organisational culture) were identified during the analysis and these will be discussed below along with their associated dimensions.

##### Property 1: Individual differences

Individual differences emerged during the coding process as a property of the category contextual factors. Five dimensions of individual differences were identified, self-efficacy, motivation, attitudes towards career, attitudes towards work and cognitive ability. Participants explained that individual differences could have a significant impact on the successful achievement of learning and the subsequent success of training transfer as reflected in training outcomes.

Participants C8, C10, C12, C15, C18, C25, C33, C39, C40 and C42 reported that a wide range of individual differences influenced the training evaluation contexts of reaction, learning, employee productivity, performance, commitment and creativity and the associated evaluation processes of feedback and test, all previously discussed. Participants explained that self-efficacy was reflected in an individual's personal confidence and innate ability to act. For example, a person with high self-efficacy who wanted to increase their KSAs would feel confident in seeking training to achieve those intentions plus, they would have

an ability to achieve success in the acquisition of the desired outcomes, as compared with a person with low in self-efficacy (views supported by Blume et al., 2010). Participants recognised however, that other factors could also influence the results achieved through training, such as motivation to learn, attitudes toward career and work and trainer skills. The existence of a range of individual characteristics that had the potential to impact on training transfer and outcomes was also found in the work of several writers (for example, Grossman and Salas, 2011; Blume et al., 2010; Bates and Davis, 2010; Salas and Cannon-Bowers, 2001). Self-efficacy and cognitive ability as part of individual differences was characterised as the manner in which a person moved towards a goal, in terms of information organisation and processing (Mathieu, 2014; Blume et al., 2010), views which broadly corresponded with those of respondents.

Participants stated that individual differences also had a significant impact on training evaluation processes. For example, individuals who had high self-efficacy and cognitive ability would be keen to provide feedback that reflected their high personal requirements and to demonstrate their achievements through test processes as part of training (views supported by Blume et al., 2010). Their personal objectives would therefore lead them to engage effectively with the evaluation process, making it successful. Whereas, those with low self-efficacy and cognitive ability may not be motivated to provide comprehensive feedback or demonstrate test-based achievements, making it less successful. Respondents also thought that other individual differences that included a high level of motivation and positive attitudes towards career and work, led to active involvement in the training assessment and evaluation processes, thereby contributing to its effectiveness. These respondent views and literature perspectives were not reflected in any of the existing training evaluation models.

The code individual differences emerged during open coding, but became a property during axial coding. The codes self-efficacy, motivation, attitudes toward career, attitudes toward work and cognitive ability also emerged during open coding (table 4.43). These codes were subsequently classified as dimensions of the property individual differences through the use of the conditional relationship guide during axial coding.

The following statement (and the resultant open codes) in table 4.43, reflected the views of participants C18 and C33 in relation to the property individual differences and its dimensions self-efficacy, motivation, attitudes toward career, attitudes toward work and cognitive ability.

Table 4.43: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C18, Because, each person is a unique individual, differences in cognitive ability and efficacy development, needs and career development exist. Parts from this, there are other factors underlying individual differences. These include innate differences in intelligence, variations in social background and past experiences, perhaps differences between the trainer and the learner, and the variations in the training contents and curriculum.	Individual differences, Cognitive ability, Efficacy development, Needs and career development. Individual differences, Differences in intelligence, Variations in social background,
C25, There are other factors may influence the results of training such as participant motivation to learn, their personality and their attitudes toward work and trainer skills, all of which may encourage a higher degree in achievement of the learning outcomes.	Motivation to learn, Individual attitudes towards work, Learner skills

### Property 2: Work climate

Work climate emerged during analysis as a property of the category contextual factors. Three dimensions of work climate were identified through open coding, support, opportunity, and practice. Participants C2, C6, C8, C12, C18, C26, C28, C33, C39, C40 and C42 suggested that these elements of work climate all influenced the training evaluation context and the evaluation processes. Participants thought that work climate could have a significant impact on successful learning and the resultant outcomes from training including training transfer and performance (views supported by Blume et al., 2010; Chen et al., 2009; Burke and Hutchins, 2007; Salas et al., 2006; Colquitt et al., 2000). Participants stated that several work climate factors could influence the extent to which learning outcomes had any impact on company functioning and performance. The factors identified included support from managers along with the opportunity to apply, practice and apply what had been learned. For example, participant C42 made the following observation:

*It is important to think about whether the atmosphere within the organisation where the employee works is supportive or not. The extent to which employees feel able to apply what they learn to their work and implement their new acquired knowledge and skills. The overall learning climate is a crucial factor to think about.*

The views of respondents were also found in previous research (for example, Tannenbaum et al., 2012; Blume et al., 2010; Salas et al., 2006; Elangovan and Karakowsky, 1999; Baldwin and Ford, 1988). That work suggested that there were several critical components of the work climate including support from managers, supervisors and peers, practice opportunity and training follow-up, all of which had the potential to impact on training

transfer and learning outcomes. Elements of work climate identified by respondents in addition to those already identified were encouragement for the implementation of what had been learned through support systems other than managers and that good practice was followed in work behaviour. For example, participant C42 made the following observation:

*Some work climate factors, for example, managers' support and activities may influence employee learning and subsequently, outcomes, leading to the level of success achieved by the evaluation process. Work climate had a potential impact on training programme effectiveness. Training and its outcome was potentially effected by many factors, namely managerial support, practice opportunity, peer encouragement, adequate resource material, available technology at work.*

The code work climate emerged during open coding, but became a property during axial coding. The codes support, opportunity, practice also emerged during open coding (table 4.44). These were subsequently classified through the use of the conditional relationship guide during axial coding as dimensions of the property work climate.

Table 4.44: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C39, The support of supervisors, managers and peers can reinforce the use of newly acquired knowledge and skills on the job. When trainees perceive that their managers and peers support cooperation and the opportunity for the application of newly acquired knowledge and skills, trainees are more likely to use their new skills back to their job.	Supervisors and managers support, Managers and peers support, Cooperation, Opportunity for learning application, Use their skills at work

### Property 3: Organisational culture

Organisational culture emerged during analysis as a property of the category contextual factors. Seven dimensions of organisational culture were identified through the coding process, goals and values, policy and norms, stakeholder involvement, learning culture, structure, leadership style and communication networks. Participants explained that culture impacted on every business in several ways that included its profitability prospects, business processes, training, development, training transfer, strategy development and planning as well as any international expansion goals (views supported by Alotaibi and Mokhtar, 2015; Song et al., 2014; Blume et al., 2010; Ford et al., 2005; Hofstede, 2001). Hofstede (2001) suggested that aspects of the cultural context, namely individualism, power distance, masculinity and uncertainty avoidance had a significant effect on the values, behaviour, learning and performance in both society and organisations. Participants C10, C12, C15, C18, C20, C21, C28, C32, C33, C39, C41, C42 and C43 reported that a wide range of

organisational culture factors (goals and values, policy and norms, stakeholder involvement, learning culture, structure, leadership style and communication networks) had a bearing upon training programme outcomes and evaluation processes. The views of respondents confirmed the findings of previous research (for example, Guerci et al., 2015; Grossman and Salas, 2011; Blume et al., 2010; Tracey et al., 1995) which suggested that organisational culture was a strong predictor of the achievement of training outcomes, the effectiveness of training and its impact on learning and employee performance. Participants also explained that the existence of a learning culture, communication networks and organisational stakeholders being involved in training and the evaluation process impacted on training outcomes and its evaluation (views supported by Guerci et al., (2015). For example, White et al. (2010) and Hofstede (2001) found that in Asian cultures, internal communication was significantly influenced by personal factors because power distance and collectivism were higher in comparison to western cultures. Internal communication, business negotiation and influence practices, decision making and the way that a business functioned were all activities that were impacted by organisational culture (Wan Lee et al., 2012). All of these activities had training and development requirements and implications at various points in time during careers and as an organisation engaged with developing market and business demands. The observations of participant C21 about the organisational culture factors that influenced training programme outcomes and the evaluation processes.

*C21, Communication networks provide the social interaction among employees. Though the primary task in any organisation is to do jobs, the organisation is also a social outlet. It is important to acknowledge the social interactions that are part of any organisational culture. In a learning culture where employees are creative and open to new ideas, leaders emphasise the creative atmosphere an effective learning outcome.*

Respondents generally thought that organisational culture existed in every company and could be both appropriate to the circumstances and supportive of management, or not. Some organisational cultures would encourage learning, which together with stakeholder involvement, would facilitate successful training and evaluation processes. Alternatively, less supportive cultures would undervalue training and its potential contributions. Such cultures would be therefore, less likely to undertake training, its evaluation or at most, adopt a minimalist approach to them. Hofstede (2001) also identified several features of culture that impacted on organisational support for training, for example, individualism, power distance, masculinity and uncertainty avoidance. Guerci et al. (2015) and Ford et al. (1992) argued that organisational stakeholder involvement in the training evaluation process impacted on its outcomes and evaluation. Clearly therefore, a supportive and

participative learning culture would facilitate such outcomes. Participant C33 made the following relevant observation:

*Organisational culture for example, in a learning culture, values where continuous training and development practice is implemented, managers are in the favourable position to implement training evaluation processes more effectively than a traditional organisation. That may positively help an evaluator get the relevant information about the evaluation of learning and outcomes more frequently and easily, resulting in a successful evaluation process. So, an appropriate culture and values are very important to achieve effective training evaluation and positive work behaviour from an employee.*

The code organisational culture emerged during open coding through the use of jotted down notes, but during axial coding it was classified as a property (table 4.45).

Table 4.45: Example of an interview statement, open codes, jotted down notes and the subcategory organisational culture

Q 4	Case ID and Quote	Open codes, jotted down notes	Subcategory
Are there any factors that influenced the evaluation of training programme outcomes and process	C43, An organisational system itself has a significant impact on employee performance and subsequently, training programme outcomes. When an organisation is democratic and they distribute power and responsibility to lower groups and employees believe that they should give their best for the company interests. In effect, they subordinate their own interests to the general interest and value their contribution to company values and employees believe that they have value for the organisation. Employees also believe that opportunities are provided equally to all employees.	Organisation system, Employee performance and outcome, Organisation is democrat, Distribute power and responsibility, Employee work at their best for the company, Work for company interest, Company value, Employees believe they have value, Opportunity equality distributed	Organisational culture

The codes goals and values, policy and norms, stakeholder involvement, learning culture, structure, leadership style and communication networks also emerged during open coding (table 4.46). These codes were subsequently classified and verified as dimensions of the property organisational culture through the use of the conditional relationship guide during axial coding. The following research question analytic memo (table 4.46) reflected the views of participants C39 and C41 in relation to the property organisational culture and its dimensions.

Table 4.46: Research question base analytic memo, reflecting the intervening condition of the subcategory organisational culture

Q4	<b>Goals and values, policy and norms, stakeholder involvement, learning culture, structure, leadership styles and communication networks = organisational culture</b>
<p>Are there any factors that influenced the evaluation of training programme outcomes and processes?</p>	<p>Organisational culture represents the intervention conditions that have bearing upon contextual conditions and the processes of assessing training programme outcomes. Organisational culture consists of six dimensions (goals and values, policy and norms, stakeholder involvement, learning culture, structure, leadership style and communication networks) which continued to influence, and impact on, training programme outcomes and processes.</p> <p>Participants explained that organisational culture influenced training programme outcomes. For example, Interviewee C39 made the following observation:</p> <p><i>C39, The culture of an organisation may have a positive or negative impact on learning outcomes and performance, depending on what type of culture existed in a company. Let's provide you with one example where a cultural situation resulted in either positive or negative employee performance. An organisational culture where employees are treated as an integral part of the management system, an employee is involved in the growth process of the organisation fosters job satisfaction, motivation and commitment towards their job due to benevolent leadership. They align their objectives and goals with the organisation's goals. They feel responsible for the overall well-being of the organisation, the goals, values and beliefs that the organisation shares. In such organisational cultures, employees are committed to achieving their goals and thus, have a positive effect on the overall performance.</i></p> <p>Participants explained that organisational culture influenced training evaluation processes. For example, Interviewee C41 made the following observation.</p> <p><i>C41, Organisational culture to a large extent influences learning outcome and the training evaluation process. For example, in an organisation willing to eliminate negative factors that would help to increase employee performance. Thus, an organisation needs to foster a positive organisational culture. Learning culture, structure and good communication network would facilitate the successful process because evaluator benefits from the positive atmosphere to carry on evaluation process. Every organisation has a value system that determines attitudes, culture, system and process. When organisational culture is centralised and is not cooperative usually results in a less effective evaluation of training programmes.</i></p> <p>Participants C10, C12, C18, C21, C33, C39, C41, C42 and C43 used the word organisational culture. The codes emerged in the data in participants own words as a descriptive code and also an in vivo code in the first part of the coding cycle and then the code was confirmed as a property of the category organisational context in the second part of the coding cycle through the writing of an analytic memo after 43 interviews.</p> <p>20 May 2015</p>

#### 4.6 Data analysis relating to the category: Training evaluation processes

The six categories discussed in section 4.3 were respondent views about what either was or should be measured to identify the relative success of training. These formed the training evaluation contexts. Participants also identified six processes that they thought were required to measure the indicated training evaluation contexts and these are discussed



below. The six processes that emerged as categories through analysis were feedback, test, productivity ratio, performance appraisal, monitoring and creative workshop session. Participants suggested that the six processes could be individually matched to the training evaluation contexts to provide the assessment element of training evaluation.

#### 4.6.1 Category 1: Feedback

Feedback emerged as a category from participant descriptions and reflected a process through which to assess employee reactions to a training programme. During analysis, two properties and five dimensions of it emerged, the hierarchical relationship between them is shown in figure 4.29 and discussed below.

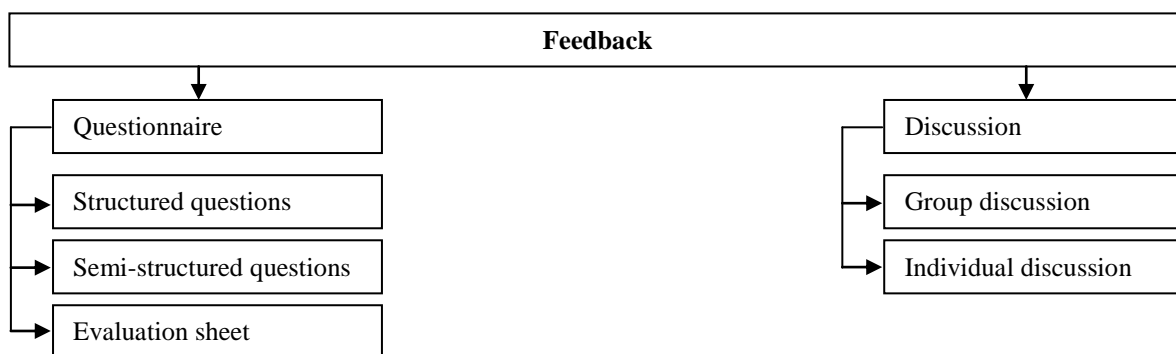


Figure 4.29: Properties and dimensions of the category feedback

*Operational definition:* The operational definition of the category feedback was identified as a descriptive code directly from the responses of participant C10:

*A company should examine trainee reaction immediately after the training session and this can be done through getting feedback like, asking a set of questions, providing a programme evaluation form and through discussion with them.*

Almost all interviewees (43 out of 45) explained that feedback was a process used within the textile industry through which to assess trainee reactions to training (views supported by Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Hamblin, 1974). The code feedback initially emerged during open coding as a descriptive code (table 4.47) but during subsequent axial coding it was classified as a category.

Table 4.47: Example of an interview statement and the resultant open code feedback

Case ID and Quote	Open code
C 15, We always get the reactions of trainees in order to understand the degree to which training is useful to them and the organisation. In this case, we provide a questionnaire to get trainee feedback and responses about a training programme within the department. Sometimes the line manager discusses with trainees the training they attended.	Feedback

The analytic memo presented in table 4.48 provides the relationship statement about feedback as a process through which to investigate the consequences of trainee reactions to a training course.

Table 4.48: Memo explaining the relationship statement about feedback as a process

<p>Relationship statement about feedback as a process.</p> <p>The feedback may be used as a process in order to evaluate trainee reactions to the training programme. (Strauss and Corbin, 1998) suggested using a relationship statement to explore a phenomenon under study.</p> <ol style="list-style-type: none"><li><b>When</b> used as a tool to identify trainee reactions to aspects of a training programme and should include their reactions to the training course, training design and learning environment.</li></ol> <p>Respondent C31 stated that a feedback evaluation sheet could be used to assess trainee reactions as follows. <i>It is a way to get feedback from the trainee about the training course and this will enable management to confirm (or otherwise) their satisfaction with the training programme.</i></p> <ol style="list-style-type: none"><li><b>Action/interaction</b> two methods of feedback, namely questionnaire and discussion may be used to identify employee reactions to the training, training design and learning environment.</li></ol> <p>Participant C10 explained that <i>trainee reaction to the training could be assessed immediately after training.</i></p> <ol style="list-style-type: none"><li><b>As a consequence</b> of feedback trainee reaction can be assessed.</li></ol> <p>May 12 2015</p>
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Company documents were also collected about the trainee feedback evaluation sheets used by company A4 (appendix F). These were used to support and better understand and the category feedback that emerged through coding.

#### 4.6.1.1 Properties and dimensions of the category feedback

Two properties of the category feedback (questionnaire and discussion) were identified during the analysis and these are discussed below along with their associated dimensions.

##### Property 1: Questionnaire

Questionnaire emerged during analysis as a property of the category feedback. Three dimensions of questionnaire were identified through the coding process, structured questions, semi-structured questions and evaluation sheet. The majority of participants (42 out of 45) reported that questionnaires were a significant technique through which to assess the reaction of trainees to training. They generally suggested that after a training session, a questionnaire which included a set of structured questions, semi-structured questions and an evaluation sheet would be provided to participants to determine their reaction to the training (views supported by Philips and Philips, 2016; Guskey, 2002; Kirkpatrick, 1994; Hamblin, 1974). For example, Interviewee C10 responded to this issue in the following way:

*It is advisable to administer a set of questions to the learner at the end of the training session in order to get their responses about the training. We usually use the technique of getting feedback from trainee. We generally provide a questionnaire or feedback evaluation sheet in order to assess trainee reaction. This is done for evaluating the outcome of a training programme.*

The code questionnaire emerged from the analysis of interviews during open coding but became a property during axial coding. The codes structured questions, semi-structured questions and evaluation sheet also emerged during open coding (table 4.49). These codes were subsequently classified and verified as dimensions of the property questionnaire through the use of the conditional relationship guide during axial coding.

Table 4.49: Example of an interview statement and identified open codes

Case ID and Quote	Open codes
C5, A set of questionnaires are provided to each trainee immediately after the training to assess their reactions to the training course and this is done by asking a set of questions. For example, did you like the training programme? Did you like the training course content? These are so called structured questions. We also get employee opinion by administering a feedback form with some specific questions using a 5-level rating scoring method.	A set of questionnaires, Reaction to the training course, Questionnaire, Training programme, Course content, Structured questions, Feedback form getting opinion, Rating scale

Secondary data was used to support the primary data in relation to feedback. For example, a training programme evaluation sheet which used a 5-level rating scale for scoring was collected from company A4 (appendix F). This was used to better understand and validate the subcategory feedback form that emerged through the coding process. Participant C6 described the range of structured and semi-structured questions for inclusion in a questionnaire as follows:

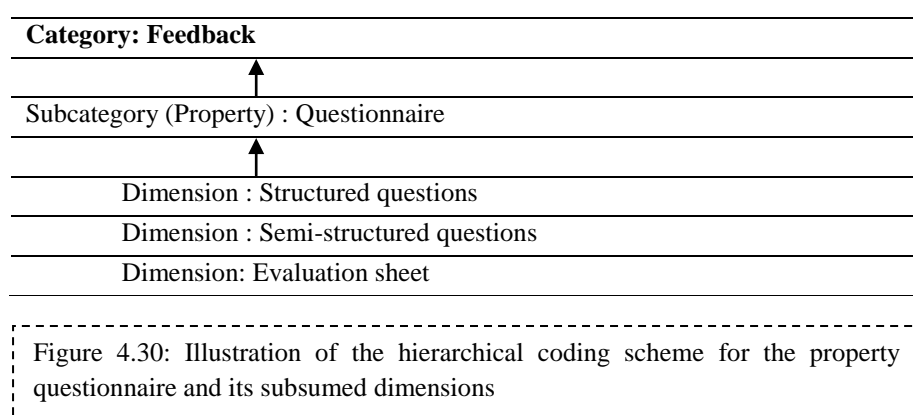
*Did you like the training course? Were the training content and materials significantly useful to you in enhancing your present knowledge? Did you think that what you learned would be beneficial in your work? If not then please tell me what else needs to be included? Do you think that the training content is able to satisfy the overall training objectives of the programme? Do you think that trainer is well skilled? If not then what kind of skill do they need to make the training more successful?*

Again, evaluation sheet was apparent in interviewee C10's answers:

*It is important to be clear about what you want to identify. If you want to have long description*

*and written comment or have suggestions from the participants about the training course, it would be best to provide a questionnaire or alternatively, if you want to identify trainee feelings or reaction about the courses then you can use an evaluation sheet as the alternative way to do it. We regularly use questionnaire and programme evaluation feedback form because they are simple, effective and the easiest way to do so.*

During axial coding, the codes structured questions semi-structured questions and evaluation sheet were analysed for common themes and brought together as dimensions of the property questionnaire during the process of parent or hierarchical coding. Consequently, the code questionnaire was assigned as a property under the higher category feedback during the process of subsuming several similar codes under one major code (figure 4.30).



### **Property 2: Discussion**

Discussion emerged during analysis as a property of the category feedback. Two dimensions of discussion were identified through the coding process, group discussion and individual discussion. 12 out of 45 participants explained in that context, discussions were conversations between two or more people to identify and explore trainee reactions and feelings towards training that they recently received. This could be achieved through the human resource development department and/or head of department arranging group or individual discussions about the training in question. This can be illustrated by participant C21's response:

*Actually, I would say that to get a trainee reaction is significant not only for understanding whether trainees are satisfied with the programme but also for making decisions about future training courses. The reason to do this is to take a decision by the training provider and sometimes the funding group for identifying future training needs and solutions based on trainee comments.*

The code discussion initially emerged during open coding specifically from participant C3's comments (table 4.50) but became a property during axial coding.

Table 4.50: Example of an interview statement and the resultant open codes

Case ID and Quote	Open codes
C3, This is the point to know, how could we measure whether trainees are satisfied with the training course? After the end of the training course, the department manager, supervisor or even training instructor could discuss with the group and individuals to understand their reactions to the training course.	Measure training course, Group discussion, Individual discussion

Similarly, Participant C10 also offered the following comment about individual and group discussion:

*After the completion of a training session, it is necessary to discuss with employees individually in order to obtain a proper response about the training course and materials. Each department in the company should ask the employees during individual discussions about the training received. No doubt if a group discussion use, it will to be reflective and appropriate to the audience.*

During axial coding, the codes group discussion and individual discussion were analysed for common themes and brought together as dimensions of the property discussion during the process of parent or hierarchical coding described previously. Consequently, the code discussion was assigned as a property under the higher category feedback during the process of subsuming several similar codes under one major code (figure 4.31).

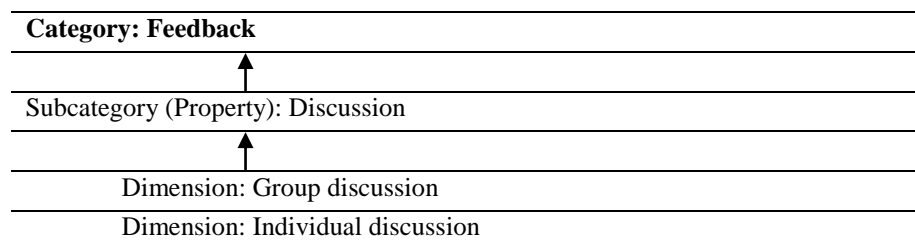
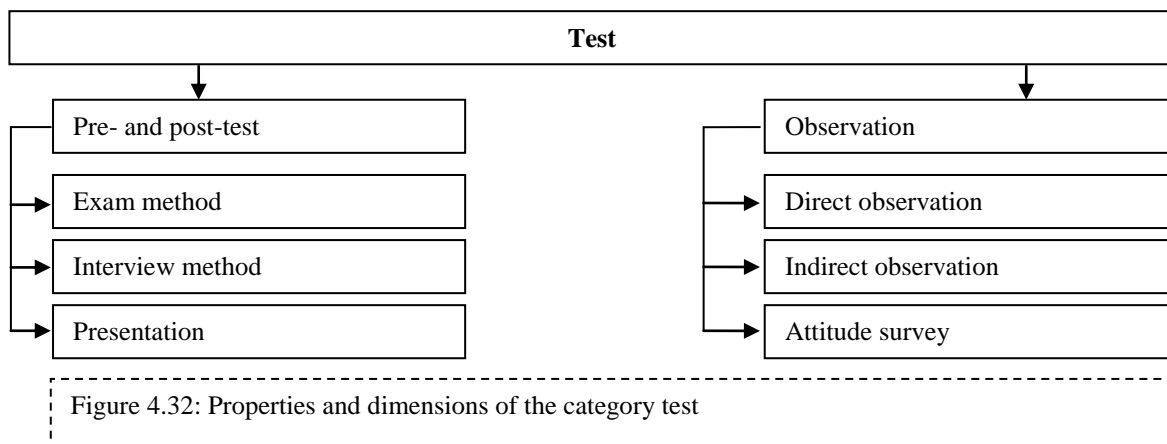


Figure 4.31: Illustration of the hierarchical coding scheme of the property discussion and its subsumed dimensions

#### 4.6.2 Category 2: Test

Test emerged as a category from participant descriptions and reflected a process through which to assess the level of learning achieved by a trainee as the result of attending training. During the analysis process, two properties and six dimensions of it emerged, the hierarchical relationship between them is shown in figure 4.32 and discussed below.



*Operational definition:* Test refers to a process through which to assess the level of learning a trainee achieves following attendance at a training course, obtained through the application of a pre- and post-test and observation.

The operational definition of the category test emerged as an in vivo code from the responses of participant C34 during data analysis:

*The company usually carries out a test before the training to assess what kind of knowledge trainees already have. After the training, another test to be carried out to understand what kind of knowledge and skills the trainees have acquired from the training.*

The code test emerged using conceptual memos (table 4.51) and during subsequent axial coding it was classified as a category.

Table 4.51: Conceptual memo, reflecting the subcategories pre-and post-test, observation and the category test

<b>Pre- and post-test + Observation = Test</b>
<p>In the textile industry, test refers to a process to evaluate the learning level of trainee after attending a training programme. Participants suggested that the process test may have two methods pre- and post-test and observation in order to analyse trainees learning level.</p> <p>Participants explained that possible ways to evaluate learning after training was to arrange exam, interview or presentation to understand the new knowledge the trainee had acquired. Direct observation and indirect observation are often used to understand skills and attitudes gained from training. A supervisor may arrange attitudes survey and respondents also suggested a 5-level rating method for each question – perhaps ranging from strongly agree to strongly disagree - which represents a simple and effective technique to use as the basis of evaluation.</p> <p>Respondent C21 said that, <i>I am working here as a training and development manager. When we organise training, whether in house training or outside training, after the training session we always review through pre- and post-test programme evaluation process.</i></p> <p>Participants C3, C5, C6, C10, C11, C15, C21, C31 and C34 used the word questionnaire. So, it emerged in the data from participants' own words as an in vivo code and also a descriptive code in the first part of the coding cycle. Then the code observation was confirmed as a property of the category feedback in the second part of the coding cycle after 30 interviews.</p> <p>10 April 2015</p>

Most respondents (40 out of 45) explained that a test could potentially use to assess employee learning in relation to whether or not KSAs changed as a result of the training that they received (views supported by Kirkpatrick and Kirkpatrick, 2016; Philips and Philips, 2016).

#### 4.6.2.1 Properties and dimensions of the category test

Two properties of test (pre- and post-test and observation) were identified during the analysis and these are discussed below along with their associated dimensions.

##### Property 1: Pre- and post-test

The code pre- and post-test emerged the coding process as a property of the category test and it contained three dimensions, exam method, interview method and presentation. The code pre- and post-test initially emerged during open coding (table 4.52) but subsequently during axial coding it was classified as a property.

Table 4.52: Example of an interview statement and the resultant open codes

Case ID and Quote	Open codes
C15, A pre- and post-test could be arranged both before and after a training session to understand the degree to which trainees benefitted and enhanced their knowledge. A pre-test can be arranged before a training to understand the level of knowledge through the exam method. The manager usually arranges for an exam, interview or presentation to understanding what knowledge the trainee acquired after training.	Pre- and post-test, Exam method, Interview, Presentation

Most respondents (28 out of 45) reported that a pre- and post-test could be used to examine knowledge gained as the result of the training received (views supported by Kirkpatrick and Kirkpatrick, 2016; Philips and Philips, 2016; Hamblin, 1974). The trainer could arrange a pre-test as part of the activities before a training session with the same test repeated in the last session (post-test). The type of knowledge forming the focus of the training would determine the form of such tests. For example, skill tests for training could include a practical skills exercise, with true/false or multiple-choice questions (or a combination of both) to determine practical or administrative competencies. Other forms of test could include exam, interview or presentation dependant of the nature of the training. Pre- and post-test were apparent in participant C15's response:

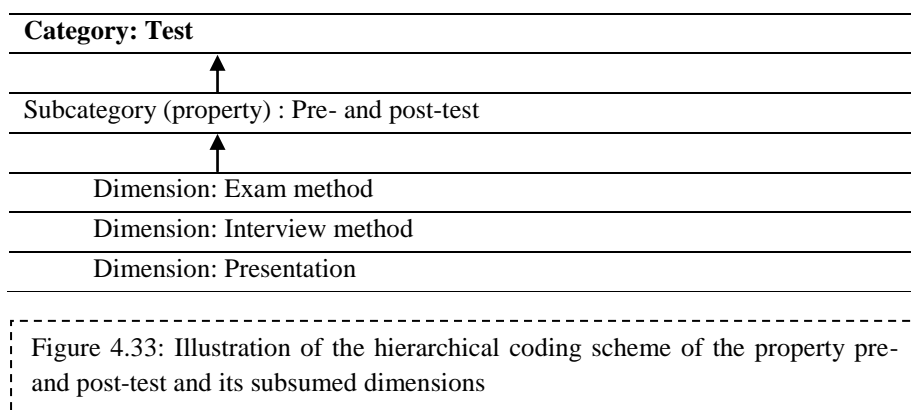
*A pre-test identify what knowledge trainees already have and a post-test following the end of training can identify what new knowledge trainees then acquired. The difference between the two results should reflect the type and level of additional knowledge and skills acquired during the training. A trainer can also arrange for trainees to take an exam to examine the levels of knowledge and skills that the trainees have following the training provided.*

Participant C27 explained that a post-test could also be administered through interview or presentation methods organised by the trainee’s supervisor or manager:

*The manager or supervisor usually takes the interview or would arrange for the trainee to make a presentation that would reflect the understanding and knowledge that the trainee acquired as a result of the training.*

Company documents from company A10 were obtained to better understand and support the primary data in relation to the design and use of pre- and post-test methods (appendix N). These documents were used to qualify and validate the subcategory pre- and post-test that emerged through coding.

During axial coding, the codes exam method, interview method and presentation were analysed for common themes and brought together as dimensions of the property pre- and post-test during the process of parent or hierarchical coding described previously. Consequently, the code pre- and post-test was assigned as a property under the higher category test during the process of subsuming several similar codes under one major code (figure 4.33).



**Property 2: Observation**

Observation emerged during the coding process as the second property of the category feedback. Three dimensions of observation were identified, direct observation, indirect observation and attitude survey. 14 out of 45 participants indicated that one possible way to assess the degree to which the learning objectives of a training programme were achieved was to observe the trainee’s skills and attitudes in their usual working environment through direct and/or indirect observation by the supervisor or manager. Respondents also thought that trainee attitudes following training could be assessed through the administration of an attitude survey. The general view of respondents was that following a training session (perhaps up to a month later) trainees would be



assessed to determine the degree to which new skills and attitudes were evident in their normal work. For example, participant C10 made the following statement:

*Trainee must be keen to incorporate their new skills into their assigned tasks, it would not be as simple as you think to determine that but you could watch them by keeping them under keen observation.*

The code observation emerged during open coding through the use of jotted down notes, which led to the identification of new codes and the subcategory observation (table 4.53) but during subsequent axial coding it was classified as a property.

Table 4.53: Example of an interview statement, open codes, jotted down notes and the subcategory observation

Interview quote	Open codes, jotted down notes	Subcategory
C21, Follow-up by manager or supervisor regularly to identify how accurately trainee is operating machine and demonstrating the ability to apply technical knowhow. Supervisor should keep observing them to determine, if employee attitudes from the training are reflected in job behaviour. In other words, the supervisor should keep watching their attitudes towards their duties.	Follow up by manager or supervisor, Supervisor observes, Watching behaviour	Observation

Participants stated that a manager or supervisor usually conducted regular direct observations to identify the degree to which trainees used newly acquired skills or attitudes in their normal work activities (views supported by Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Hamblin, 1974). Direct observation was reflected in the following quote from respondent C39:

*There were few employees, perhaps about 5 textile engineers, who left their job due to limited skill training being provided. So, the remaining workforce overlooked a lot of things and consequently the work was not done properly. It was obviously very disappointing as nobody wanted to deliberately carry on working in a bad way. Subsequently, they were provided with training at the beginning of the year and then supervisor was required to observe whether or not the trainees used the new skills in their work.*

Respondents explained that a manager might become aware of something through observation (direct or indirect), or if an unexpected or unusual situation arose. Following which they could hold discussions with the line manager or supervisor about whether the new skills that should have been acquired during training were evident in the trainee's regular work. Participant C21 commented on indirect observation, in the following quote,

which was also reflected in the views of respondent C31:

*Indirect observation may identify something that you need to discuss with the supervisor, peers or colleague about employee attitudes or how competent they are to perform particular tasks.*

Conceptual memos were used to record thoughts about the meaning of codes, code choice and emergent categories, and to keep notes about when and how they occurred (for example, table 4.54).

Table 4.54: Conceptual memo, reflecting the subcategories direct observation, indirect observation, attitudes survey and the category observation

<b>Direct observation + indirect observation + attitudes survey = Observation</b>
In the textile industry, observation is used as a process to evaluate the learning level of trainees after training. Respondents stated that the way to measure the learning level of an employee after training was to observe the trainee's skills and attitudes through direct and indirect observation by the supervisor or manager. Attitudes also may be accessed through an attitude survey.
Direct observation is often used to assess the degree to which new skills and attitudes were applied to the prescribed duties after training. A manager or supervisor should conduct regular direct observation through follow up or watch skills or attitudes of employees as displayed in their every day work activities. Indirect observation could also be used to understand new skills and attitudes in the same way. A manager may conduct indirect observation following which they may conduct discussions with the line manager or supervisor about the trainee's skill. This could also be followed by discussion with peers and colleagues of the trainee. An attitude survey was often used to assess trainee attitudes towards their job or colleagues.
Participants C10, C21, C31 and C39 used the word observation. So, it emerged in the data from the words used by participants as an in vivo code and also a descriptive code in the first part of the coding cycle. Then the code observation was confirmed as a property of the category test in the second part of the coding cycle after 30 interviews. 10 April 2015

During axial coding, the codes direct observation, indirect observation and attitude survey were analysed for common themes and brought together as dimensions of the property observation during the process of parent or hierarchical coding described previously. Consequently, the code observation was assigned as a property under the higher category test during the process of subsuming several similar codes under one major code (figure 4.34).

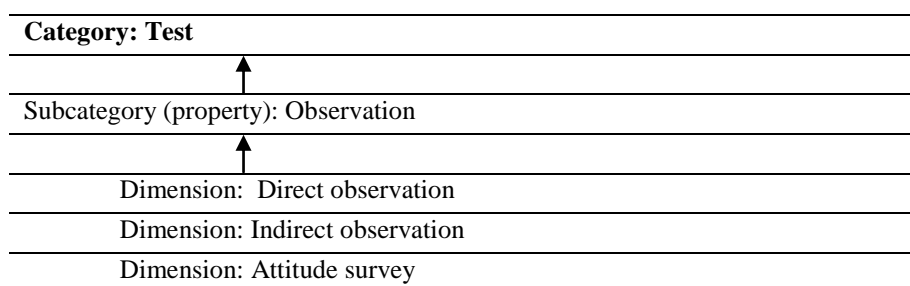


Figure 4.34: Illustration of the hierarchical coding scheme of the property observation and its subsumed dimensions

### 4.6.3 Category 3: Productivity ratio

Productivity ratio emerged as a category from participant descriptions and reflected a process through which to assess a trainee's productivity as a result of attending training. During analysis, two properties and four dimensions of it emerged. The hierarchical relationship between them is shown in figure 4.35 and discussed below.

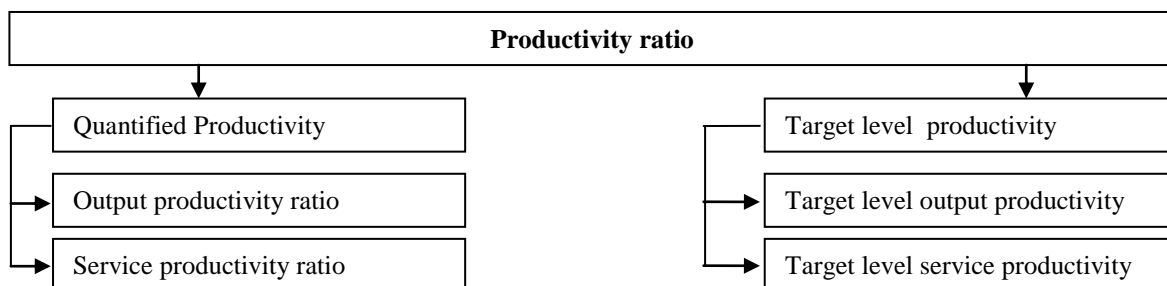


Figure 4.35: Properties and dimensions of the category productivity ratio

*Operational definition:* Productivity ratio refers to a process through which to assess trainee productivity after they have attended a training programme.

A high proportion of participants (35 out of 45) explained that the employee productivity ratio was a technique through which to assess the extent to which employee productivity increased after training. Respondents C3 and C26 explained that productivity ratio referred to the ratio of output against input (views supported by Aragon et al., 2014; Arnold et al., 2011; Aghion et al., 2009). Both elements in that ratio could be measured using a variety of units, for example, the comments of participant C26:

*The common equation for calculating productivity is a ratio of output produced to the inputs used in production, for example, productivity=output/input. The most common output units include sales or the amount of goods produced, whereas, labour hours, capital and materials are common input units.*

The analytic memo presented in table 4.55 provides the relationship statement about productivity ratio as a process through which to investigate the consequences of the phenomenon under study.

Table 4.55: Memo relationship statement about productivity ratio as a process

Relationship statement about productivity ratio as a process.

The productivity ratio may be used as a process in order to evaluate the degree to which trainee productivity improved as a result of attending a training course. (Strauss and Corbin, 1998) suggested using a relationship statement to explore a phenomenon under study.

1. **When** used as a tool to identify employee productivity including output productivity and service productivity. Respondent C42 stated that productivity software could be used to calculate productivity ratio using a number of products or services an employee produced in a given time period. It is used to directly measure employee output and service productivity per hour, day or month.
2. **Action/interaction** of the process is the quantified productivity and target level productivity. Quantified productivity may be organised through both output productivity ratio and service productivity ratio and target level productivity may be organised through both target level output productivity and target level service productivity. Participant C34 explained that that employee output and service productivity could be assessed annually or semi-annually to assess both quantified productivity and target level productivity.
3. **As a consequence** of productivity ratio employee productivity can be assessed.

15 April 2015

Company documents on productivity ratio were collected as secondary data from companies A3, A6 and A16 (appendix L). These documents were used to better understand and support the category productivity ratio that emerged through coding from the views of respondents.

#### **4.6.3.1 Properties and dimensions of the category productivity ratio**

Two properties of productivity ratio (quantified productivity and target level productivity) were identified during analysis and these are discussed below along with their associated dimensions.

##### **Property 1: Quantified productivity**

Quantified productivity emerged during the coding process as a property of the category productivity ratio. Two dimensions of quantified productivity were identified, output productivity ratio and service productivity ratio. Just over half of participants (23 out of 45) explained that the number of products produced or services an employee provided in a specific time could be measured to produce output and service productivity. Company documents on calculating output productivity ratio was collected from companies A3, A6 and A16 (appendix L) which contributed to a better understanding of output productivity ratio as described by respondents. Respondents also explained that following training it was useful to identify the extent to which employee productivity increased compared to previous levels in order to be able to evaluate the effect of training. For example, respondent C3 made the following observation:

*Productivity software or a spreadsheet can be used to calculate productivity using a number of products/services an employee produced in a specific time period. It directly measures employee output and service productivity per hour, day or month.*

The code quantified productivity initially emerged during open coding as a descriptive code directly from participant responses (table 4.56) but during subsequent axial coding it was classified as a property.

Table 4.56: Example of an interview statement and the resultant descriptive code quantified

Case ID and Quote	Descriptive code
C10, We identify the number of products an employee produced in a given period of time and then averaged those to get output productivity.	Quantified productivity

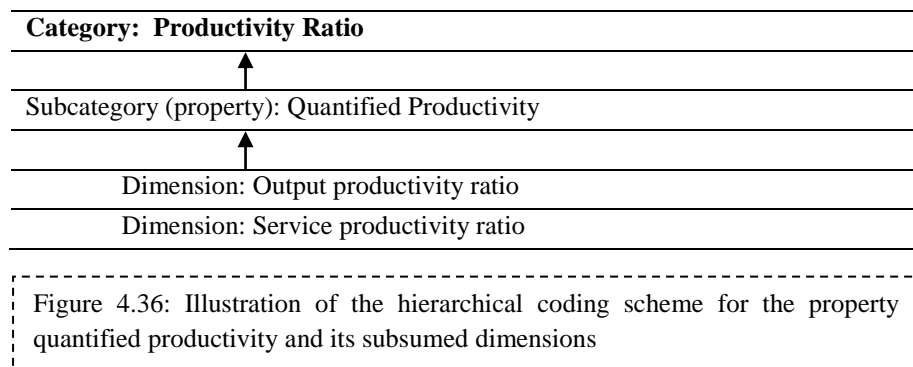
Participant C30 explained that employee output and service productivity ratios could be assessed annually or semi-annually as a routine exercise. For example, interviewee C10 made the following observation:

*We identify the number of products an employee produced in a given period of time and then averaged those to get the output productivity. This can be measured either by the volume or quantity which are produced by the employee. We schedule the average hourly output for the employee based on weekly or monthly time periods under usual working conditions.*

Participant C26 provided the following example when they explained the customer service productivity of a customer services advisor:

*Manager in the customer service department would like to measure the level of productivity of the two customer service advisors, Mr. X and Mr. Y. In such cases, manager decided to use a productivity ratio. For example, customer service productivity may be measured in various ways including call waiting times (such as how long takes for a customer call to be answered). He may also use the average number of calls expected to be answered per day as the input and average number of customers who get served per day as the output.*

The dimensions output productivity ratio and service productivity ratio were analysed (using the conditional relationship guide) for common themes between the property quantified productivity and the dimensions output productivity ratio and service productivity ratio. Based on that analysis they were grouped together and assigned to the higher order label quantified productivity. The code quantified productivity was later assigned under the higher category productivity ratio during the process of subsuming several similar codes under one major code (figure 4.36).



### **Property2: Target level productivity**

Target level productivity emerged the coding process as a property of the category productivity ratio. Two dimensions of target level productivity were identified, target level output productivity rate and target level service productivity rate. Participants explained that companies in the textile industry often used target level productivity to assess whether or not improvement was achieved following attendance at training. To do so respondents indicated that the manager had to establish the standard of output or service productivity expected. Then the employee's output or service productivity would be monitored so that actual output or service productivity achieved could be identified and compared with the target output or service productivity rate. For example, participant C34 explained that:

*Management has to inform employee what company is expecting from them. I mean companies desire objectives and therefore, need to set out the targets for employees. If an employee is a sales executive, then for example, they need to be told that the sales levels required are to be increased by 5% a year. This becomes the desired sales target which will be compared with the actual achievement at the end of the year. If the sales rate increased by 6%, it indicated that the employee exceeded their target. So, the actual sales rate can be compared with the desired target.*

Interviewees C7, C9, C10, C17, C22, C30, C34 and C42 reported that trainee productivity could be measured through the target level of productivity achieved following training. Further, interviewees suggested that either interval of three or six months were appropriate time over which to assess employee productivity. For example, participant C17 commented:

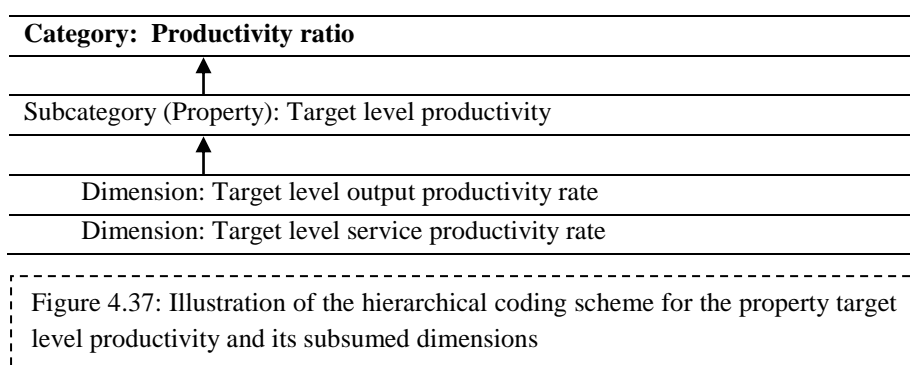
*To measure the target level productivity, firstly, you must provide the output target to the employee and get the information on how employee's work to meet the target. Obviously, tell them the target level of the productivity or desired goal. For example, the production rate should be increased by 10% or 20 cartons of shirts needs to be produced on the line. Then the target required would be compared to what was achieved that would measure their productivity. Manager should compare the target with the actual outcome.*

The code target level productivity emerged from analysis during open coding through the use of jotted down notes, which led to the identification of new codes and the subcategory target level productivity (table 4.57). During subsequent axial coding it was classified as a property of productivity ratio.

Table 4.57: Example of an interview statement, open codes, jotted down notes and the subcategory target level productivity

Interview quote	Open codes, jotted down notes	Subcategory
C22, Sometimes the company will set up a benchmark for the individual to achieve, in effect, their target for production. This could be a way to identify their target level productivity. For example, production to be increased by 5% within 4 months, sales growth to be increased by 5% in a year and service rate to be increased by 5% in a year.	Target for production, Their target level productivity, Production to be increased by 5% within months, Sales growth and rate to be increased by 5% in a year	Target level productivity

Both an analytic memo and axial coding were used to allow reflection on and record thoughts about target level productivity, serving as a validity check of researcher thinking. The dimensions target level output productivity rate and target level service productivity rate were analysed for common themes. The conditional relationship guide was used to clarify the links between the property target level productivity and the dimension target level output productivity rate and target level service productivity rate. Based on that analysis they were grouped together according to the linked theme and assigned a higher order label as a property of target level productivity. The code target level productivity was later assigned under the higher category productivity ratio during the process of subsuming several similar codes under one major code (figure 4.37).



#### 4.6.4 Category 4: Performance appraisal

Performance appraisal emerged as a category from participant descriptions and reflected a process through which to assess a trainee's performance as a result of training. During analysis, two properties and five dimensions of it emerged. The hierarchical relationship between them is shown in figure 4.38 and discussed below.

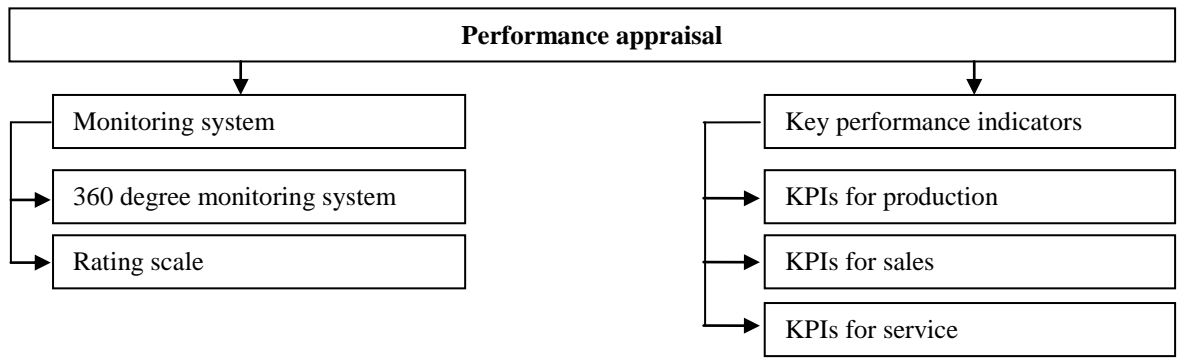


Figure 4.38: Properties and dimensions of the category performance appraisal

*Operational definition:* Performance appraisal refers to a process through which to assess trainee performance after they have attended a training programme.

The operational definition was created during data analysis from an amalgamation of participant answers through the use of an analytic memo (section 3.6.5 and table 4.51). It should be noted that performance appraisal has a wider relevance in performance management than the focus of this research would suggest, as reflected in the comments of respondent C25 below. Therefore, the focus of this discussion will be restricted to its relevance to training evaluation. The definition originated from the comments of respondents C10, C15, C18, C25, C29, C31, C33 and C43. For example, participant C10 made the following observation:

*Management has to set up specific obtainable goal for the individual which also needs to be agreed by the employee. For example, a production employee has to produce 10 items a day. Once this defined goal is set by the manager then it is also his duty to drive employee towards the achievement of that goal. When you do the appraisal, if you compare the actual output achieved and expected target then you will clear whether or not the performance has increased by the required degree.*

Performance appraisal represented the ongoing process of reviewing employee performance over time, based on a set of specific criteria or standards. Interviewee C25 commented that:

*We very often use a grading system to assess employee performance based on task proficiency, management skill, technical skills, teamwork performance and job performance etc. In fact, we do it as part of the annual performance review.*

A conceptual memo was used to record thoughts about the meaning of codes relevant to this category, code choice and emergent categories and to keep notes about when and how codes occurred (table 4.58).



Table 4.58: Conceptual memo, reflecting the subcategories monitoring system, KPIs and the category performance appraisal

<b>Monitoring system + Key performance indicators (KPIs)= Performance appraisal</b>
<p>Performance appraisal is a strategic management tool to assess employee performance. Management will have to determine what significant elements to measure such as tasks, skills, management skills, technical skills, volume of products or services, volume of sales and operational functions and then establish standard of performance that is set up as a set of KPIs. In the textile industry, performance appraisal is widely used as a process to evaluate employee performance. Monitoring system and key performance indicators are the most common methods used. KPIs for production, KPIs for sales, and KPIs for service are used as methods of key performance indicators to identify employee performance. If employee can achieve the desired performance, it means that they have succeeded in delivering acceptable performance.</p>
<p>For example, KPIs for sales which indicate target sales rate - for example, sales rate to be increased by 5%.</p>
<p>Participants C10, C15, C25, C18, C31, C33 and C43 used the words performance appraisal. So, it emerged in the data in participants own words as an in vivo code and a descriptive code during the first part of the coding cycle and then the code performance appraisal was confirmed as a category in the second part of the coding cycle after 43 interviews.</p>
<p>18 April 2015</p>

A high proportion of participants (38 out of 45) explained that performance appraisal could be used as a technique through which to assess the extent to which employee performance improved after attending training. Participants also indicated that performance appraisal was widely used for reviewing employee annual performance in order to make decisions about the need for training, promotion decisions and fixing the salary for at all levels of employee, including production workers (views also found in David, 2008; Hakala, 2008).

#### **4.6.4.1 Properties and dimensions of the category performance appraisal**

Two properties of performance appraisal, monitoring system and key performance indicators (KPIs) were identified during analysis and these are discussed below along with their associated dimensions.

##### **Property 1: Monitoring system**

Monitoring system emerged during analysis as a property of the category performance appraisal. Two dimensions were identified through the coding process, 360 degree review system and rating scale. 22 out of 45 respondents commented that the 360 degree review system was widely used in the textile industry as a performance appraisal mechanism to assess employee performance at work. Participants indicated that the 360 degree review system was designed to provide an employee with feedback from their managers, supervisors and peers, views also found in the work of David (2008) and Hakala (2008). This enabled the appraiser to collect and assess a complete profile of employee performance that incorporated task proficiency, leadership and managerial proficiency,

communication proficiency and adaptive proficiency. For example, participant C15's views were:

*How do you know whether or not your employees are motivated to perform a certain duty? You can use a rating scale and 360 degree monitoring system to assess employee performance. These techniques might be useful way of performance appraisal. Most large and some small organisations use the 360 degree performance review technique asking their peers, subordinate and supervisor to measure employee performance.*

The code monitoring system initially emerged during open coding as a descriptive code directly from participant responses (for example, table 4.59) but during subsequent axial coding it was classified as a property.

Table 4.59: Example of an interview statement and the resultant descriptive code monitoring system

Case ID and Quote	Descriptive code
C35, Monitoring system would be a viable way to assess employee task performance and how they would expect to perform certain duties. However, we use this as the annual performance review in which we also assess employee communication skills, leadership skills and adaptability.	Monitoring system

26 participants suggested that rating scales were also widely used as an annual performance appraisal mechanism to assess employee performance. Respondent views about rating scales were found in the work of David (2008), Hakala (2008) and Arvey and Murphy (1998). Participants explained that performance was frequently assessed through the administration of a five point rating scale, usually carried out annually. Secondary data was collected on the annual performance appraisal rating scale used by company A4 (appendix O). This document was used to better understand and support the subcategory monitoring system that emerged as primary code from the views of respondents C6, C10, C12, C15, C26, C31, C33, C37 and C42. Participants expressed views that employees had to demonstrate a minimum standard or grade to be considered to have achieved a good performance rating. Respondents also said that rating scales could be used to identify employee performance, recognise employee achievements, identify the contribution of training previously carried out, identify which areas of employee performance needed improvement and identify future training needs. Areas such as initiative, job performance, leadership proficiency, communication proficiency, planning skills, decision making skills, controlling skills, quality of work, motivation, and adaptability proficiency would usually be considered in order to identify and justify the performance rating awarded to the employee (views also found in David, 2008 and Hakala, 2008). Respondent C31 provided the following quote, which was similar to the views of participants C15, C21, C25, C32, C33 and C39:

*As the manager of an HR department, we arranged a grading system to assess employee performance based on technical skills, motivation, teamwork, interpersonal relationship and job performance etc. In fact, we do it for the annual performance review.*

Participant C10 expressed views on the value of the rating scale approach to performance appraisal, which was similar to the views offered by participants C18, C33, C37, C42 and C43:

*You have to arrange grading that would allow you to include varieties of areas, for example, leadership skills, communication skills, interpersonal skills, managerial skills and work capacities etc. It might be useful way to evaluate individual performance.*

During axial coding, the codes 360 degree review system and rating scale were analysed for common themes and brought together as dimensions of the property monitoring system during the process of parent or hierarchical coding described previously. Consequently, the code monitoring system was assigned as a property under the higher category performance appraisal during the process of subsuming several similar codes under one major code (figure 4.39).

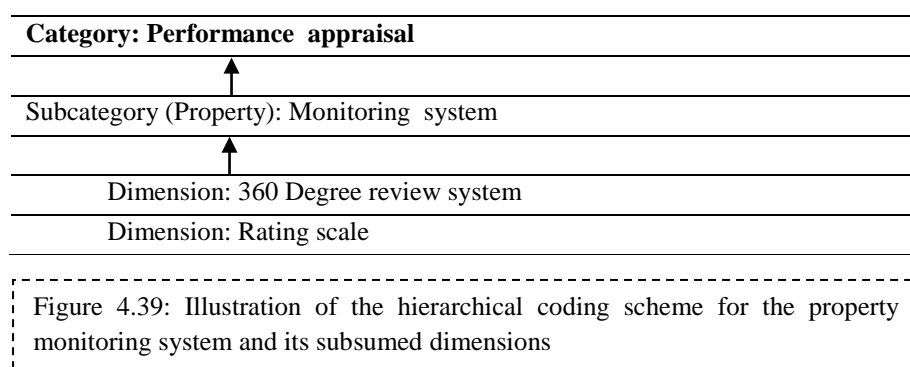


Figure 4.39: Illustration of the hierarchical coding scheme for the property monitoring system and its subsumed dimensions

**Property 2: Key performance indicators (KPIs)**

KPIs were identified as the second property of the category performance appraisal from the analysis of interviews. It contained three dimensions; KPIs for production, KPIs for sales and KPIs for service. Participants thought that KPIs could be a useful technique through which to assess employee performance following training. Individual activities and performance would be monitored through the KPIs so that the performance delivered could be compared with the performance requirements, leading to the identification of any follow up action that might be required. The activities and performance evaluation process were intended to ensure that an individual achieved what was expected of them (a point also made by Bernard, 2012; David, 2008; Bean and Geraghty, 2003). Managers needed to establish defined and realistic objectives to be achieved within a specific period of time, which the employee would be expected to agree to achieve. Respondent C29 expressed their opinion on this issue:

*One way to measure a trainee's performance is the setting up attainable and realistic goals to achieve within a time frame. The manager and employee have to agree upon the goals to work on.*

Respondent C29 also commented on KPIs in the following way:

*KPIs should reflect the desired objectives, such as sales growth rate to be increased by 5% in one year, delivery of performance in on time delivery should be increased by 10% in one year, or sales of product and the service rate to be increased by 5% in one year.*

Similarly, Participants C10, C12, C15, C29, C33 and C38 explained that KPIs could be usefully used to identify employee training needs. For example, respondent C15 expressed the view that:

*Our company rigorously uses KPIs for performance appraisal. It enables the employee to understand how they are performing in a specific job and what further training they require to further improve it.*

A conceptual memo was used to record thoughts about the meaning of the code, code choice and emergent categories and to keep notes about when and how codes occurred (table 4.60 for the memo relating to KPIs).

Table 4.60: Conceptual memo, reflecting the subcategories KPIs for production, KPIs for sales, KPIs for services and the category (KPIs)

<b>KPIs for production + KPIs for sales + KPIs for service = Key performance indicators (KPIs)</b>
<p>In the textile industry, KPIs are used as a process to evaluate employee performance. KPIs for production, KPIs for sales and KPIs for service are commonly used as key indicators of the desired standard level to be achieved clearly which would be clearly set out. These indicators are used to identify employee performance which would be used for the annual performance review.</p>
<p>Measuring KPIs is one of the management's strategic objectives in order to assess employee performance. Management will have to determine what elements to measure such as, volume of products or services produced, volume of sales and operational functions and then establish standard of performance that is set up as a clear KPIs. For example, Production to be increased by 5% within 4 months. Sales rate to be increased by 5% in six months. Service rate to be increased by 5% in one year.</p>
<p>In the third step, a manager has to measure actual performance in a certain period of time and then compare the actual performance with the standard of KPIs performance expected. If the employee achieved the desire performance against their KPIs, it means that they have succeeded in delivering an acceptable performance.</p>
<p>Participants C15 and C40 used the word KPIs. So, it emerged from participants own words as an in vivo code in the first part of the coding cycle and then the code KPIs was confirmed as a category in the second part of the coding cycle after 40 interviews.</p>
<p>16 April 2015</p>

Participant C33 explained their views about the measurement of performance, which also reflected the views expressed by many other participants:

*It is necessary to identify a set of goals for an employee to achieve. Company desired performance is the key factor, for example, a specific target of achieving 500m product sales by December 2016 and it will be monitored every 3 months so that actual performance can be compared with the desired performance of 500m product sales by December 2016.*

During axial coding, the codes KPIs for production, KPIs for sales, and KPIs for service were analysed for common themes and brought together as dimensions of the property KPIs during the process of parent or hierarchical coding described previously. Consequently, the code KPIs was assigned as a property under the higher category performance appraisal during the process of subsuming several similar codes under one major code (figure 4.40).

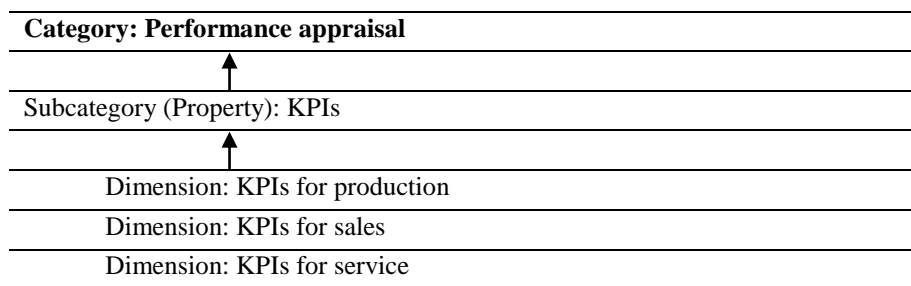


Figure 4.40: Illustration of the hierarchical coding scheme for the property KPIs and its subsumed dimensions

#### 4.6.5 Category 5: Monitoring

Monitoring emerged as a category from participant descriptions and reflected a process through which to assess a trainee’s level of commitment to their job as a result of training. During the analysis process, two properties and three dimensions of it emerged, the hierarchical relationship between them is shown in figure 4.41 and discussed below.

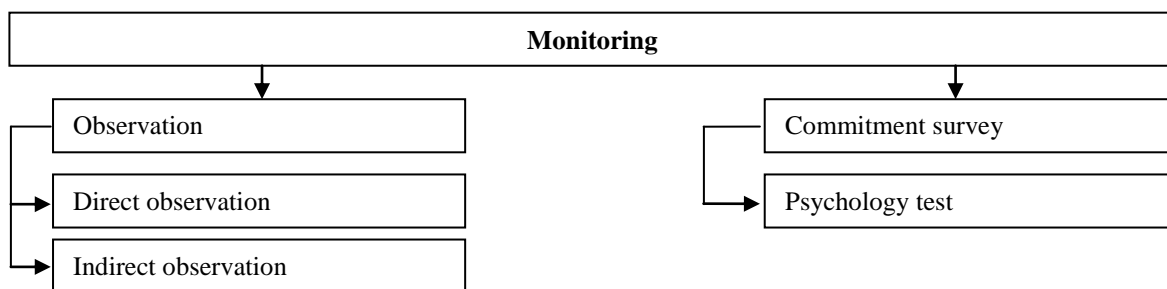


Figure 4. 41: Properties and dimensions of the category monitoring

*Operational definition:* The category monitoring refers to a process used in order to assess the extent to which a trainee is committed to their job which can be assessed through observation and/or administration of a commitment survey.

The operational definition of the category monitoring emerged from the words of participant C10 during data analysis:

*Monitoring is a process to assess employee commitment through observation and perhaps record keeping on a regular basis. We sometimes arrange a psychological test to assess the extent to which they are committed to the job.*

The analytic memo presented in table 4.61 provides the relationship statement about monitoring as a process through which to investigate the consequences of the phenomenon under study.

Table 4.61: Memo relationship statement about monitoring as a process

Relationship statement about monitoring as a process.

Strauss and Corbin (1998) suggested using relationship statement to explore a phenomenon under study. Monitoring may be used as a process in order to evaluate the degree to which trainee commitment is improved as a result of attending training course.

**1. When** used as a tool to identify employee commitment including teambuilding, punctuality, OCB and motivation. Participant C10 stated that monitoring could be used to measure the extent to which employee's teambuilding, punctuality, OCB and motivation increased after training.

**2. Action/interaction** of the process is the commitment survey and observation. Psychology test could also be a way of undertaking a commitment survey and observation could be direct or indirect observation in order to assess employee commitment. Direct observation and indirect observation was referred to by participant C21 in the following terms:

*Supervisor may ask colleagues or peers whether employee gets involved in being a company representative and supports their co workers. Supervisor and sometimes line manager may regularly follow up and directly observe whether employee is involved in participation and job satisfaction.*

Respondent C20 explained that employee team building, punctuality, OCB and motivation could be assessed annually or semi-annually using commitment survey and observation.

**3. As consequences** of monitoring employee is to assess employee productivity effectively.

18 April 2015

#### **4.6.5.1 Properties and dimensions of the category Monitoring**

Two properties of monitoring (observation and commitment survey) were identified during the analysis and will be discussed below along with their associated dimensions.

##### **Property 1: Observation**

Observation emerged during the analysis as a property of the category monitoring. Two dimensions of observation were identified through the coding process, direct observation and indirect observation. For example, the following observation was apparent in the views

of respondent C25:

*The easiest way to assess commitment would be through observation. Now, the most important decision is who will observe and how? A line manager of the department may keep watching employees and then create a record of what kind of activities or attitudes are evident when they work. Again, a supervisor or line manager can ask colleagues or peers of the employee about their teamwork capacity and their demonstrated levels of responsibility towards their job, colleagues and the company.*

The code observation initially emerged as a descriptive code directly from participant responses during open coding (for example, table 4.62) but during subsequent axial coding it was classified as a property.

Table 4.62: Example of an interview statement and the resultant descriptive code observation

Case ID and Quote	Descriptive code
C32, You can observe how an employee is involved in helping his peers to get their job done. He knows it is vital for the company and also for employees.	Observation

More than half of the participants (27 out of 45) explained that observation could be a useful technique through which to assess the level of employee commitment. It would be demonstrated by the degree to which they were involved in teambuilding, their punctuality in attending work, their motivation and their organisational citizenship behaviour (OCB) (views supported by Le Roy and Rioux, 2013; Rioux, 2012; Foote and Tang, 2008; Jung and Hong, 2008). For example, participant C21 expressed views that employee observation was a tool through which to assess the level of employee commitment which also reflected those of respondents C16, C28 and C34:

*An assessment might be designed six months after the training. The supervisor and sometimes line manager may regularly follow up and observe either directly or indirectly whether the employee is involved in participation and demonstrates job satisfaction.*

In addition, participants C2, C5, C7, C8, C18, C25, C27, C32, C36, C38 and C39 suggested that direct observation could be carried out by the appropriate line manager and supervisor looking for evidence of employee commitment. The same participants referred to direct observation as reflected in the following quote from respondent C34:

*I guess that the line manager should always keep on watching work performance. Especially, how employees maintain participation in group decision making. Every day the manager should directly watch or follow up on issues including how employees work together, looking for harmony and their willingness to do their jobs.*

Participants C8, C16, C21, C28, C34 and C40 suggested that indirect observation could be carried out by the appropriate line manager and supervisor in order to assess the level of commitment among employees. Participants explained that could be done by asking colleagues, peers (superior or subordinate) for their assessment of the level of commitment experienced (generally in a team or specifically an individual) in terms of teamwork capacity, punctuality, motivation and OCB. Indirect observation was referred to by participant C21 in the following terms:

*A line manager would identify the employee level of commitment in relation to citizenship behaviour and motivation by asking their boss or peers and would then maintain a record of the same in the individual's personal file.*

Participant C28 also commented on indirect observation, as follows:

*A line manager can ask members about how supportive the employee was, the degree to which he was interested in others and contributed to group decisions. Managers would also try to find whether individual members were sensitive to the feelings of others and if they were satisfied with their work? Being a leader of a team most of the times, I ask my team members how they feel when they need to alter their opinion in order to get a group decision.*

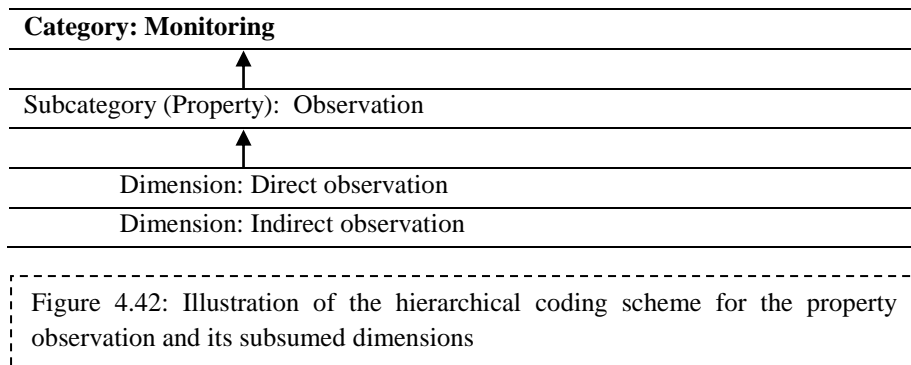
The conditional relationship guide was also used in the identification of the relationship between the dimensions direct observation and indirect observation and the property observation (table 4.63).

Table 4.63: The conditional relationship guide established and verified the relationship between the code direct observation and observation as the consequence of it

Conditional relationship guide						
Code	What the code refers to?	When the code would be used?	Where the code would be used?	Why the code would be used?	How the code would be used?	Consequence of using the code
Direct observation	The technique to assess job satisfaction and employee involvement.	Manager directly watch teamwork and performance, Watching levels of cooperation, Observe levels of job satisfaction, Observe employee participation	Inside the company	Watching for job satisfaction, Observe involvement and work speed, Observe teamwork and performance	Direct observation by manager and/or supervisor, Watch employee activities, Regular record keeping	Observation



The codes direct observation and indirect observation were brought together as dimensions of the property observation during the process of parent or hierarchical coding described previously. Consequently, the code observation was assigned as a property under the higher order category monitoring during the process of subsuming several similar codes under one major code (figure 4.42).



### **Property 2: Commitment survey**

Commitment survey was identified as the second property of the category monitoring from the analysis of interviews. It contained one dimension, psychological test. Some participants (12 out of 45) explained that the use of a commitment survey was an appropriate way through which to assess the level of employee commitment to their job (points also made by Rioux, 2012; Bhatnagar, 2007; Morrison, 2004; Field, 2002). Respondents explained that the technique commitment survey contained several items each with a scale which reflected the level of employee commitment to their job. Such a test typically asked about 10 questions relating to the values of an employee about their job and how they carried it out. A high score indicated a high commitment level and low score indicated a low commitment level. The commitment profile questionnaire used in company A4 was collected as a secondary document (appendix G). It was used to better understand, support and qualify the code commitment survey that emerged from comments by respondents C6, C10, C15, C22, C31, C34, C39 and C42.

The code commitment survey initially emerged during open coding but during axial coding it also emerged as a property. Interviewee C34 expressed the following views about commitment surveys, views which also reflected comments made by respondents C10, C15, C22, C39 and C42:

*You can also identify employee commitment using an employee commitment survey form which would include a benchmark with a measurement scale. You can design 10 questions related to a job and make the questions important to them? Actually it is questions intended to understand their loyalty, honesty, responsibility, sincerity, punctuality, team*

*work capacity, rationale for staying with the organisation and other obligations they feel important.*

Participant C42 provided the following quote, which was similar to the views expressed by participants C22, C34, C25 and C39:

*Our company uses a commitment survey form and also uses relevant criteria in the performance appraisal sheet. I would strongly recommend our company should use these techniques to evaluate training. We can arrange benchmarking with an appropriate scale as it would be easiest.*

A psychological test was apparent in respondent C22's description:

*A psychology test survey form may include a measurement scale and it can be used to identify the commitment profile of an employee. Just identify and write down the 10 most important values of an employee towards their job. The employee responses will obviously provide a clear picture about their level of commitment towards their job, colleagues and company.*

During axial coding, the code psychological test was analysed for common themes. Through comparison using the conditional relationship guide, it was possible to identify the property commitment survey and its dimension psychology test. They were grouped together according to the identified theme which was assigned a higher order label commitment survey. Consequently, commitment survey was assigned as a property under the higher category monitoring during the process of subsuming several similar codes under one major code (figure 4.43).

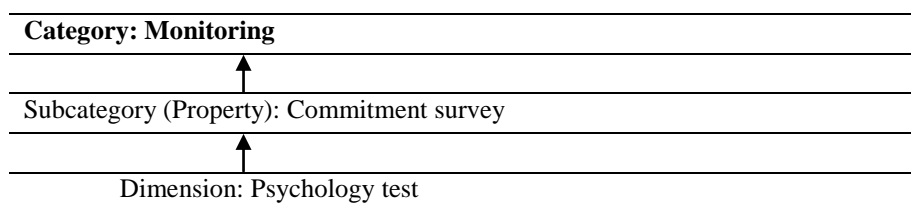


Figure 4.43: Illustration of the hierarchical coding scheme for the property commitment survey and its subsumed dimensions

#### **4.6.6 Category 6: Creativity workshop session**

Creativity workshop session emerged as a category from participant descriptions and reflected a process through which to assess trainee level of creativity as a result of training. During analysis two properties and four dimensions of it emerged, the hierarchical relationship between them is shown in figure 4.44 and discussed below.

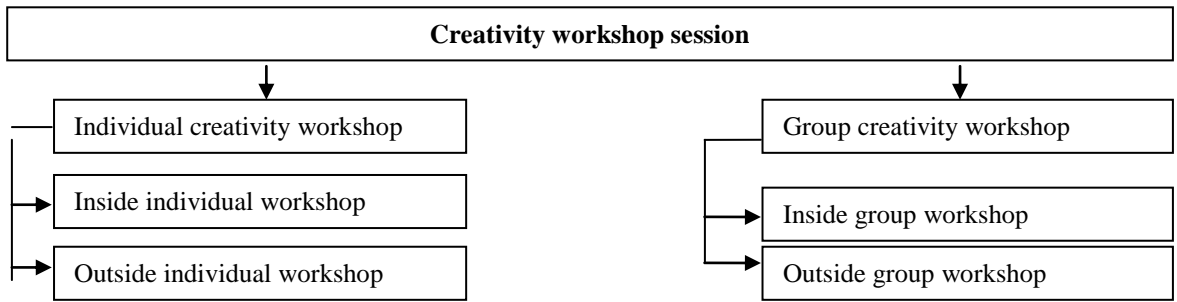


Figure 4.44: Properties and dimensions of the category creativity workshop session

*Operational definition:* The category creativity workshop session refers to a process through which to assess the extent to which the level of trainee creativity improved as a result of training.

The operational definition of the category creativity workshop session was defined by assembling respondent responses using an analytic memo during data analysis (for example, table 4.64). The definition of the category creativity workshop session was based on the collective views from 23 participants. For example, participant C24 made the following observation:

*The individual creativity workshop session may be run to assess the degree to which an employee is involved in implementing a new idea or that they modified the old ones.*

Table 4.64: Analytic memo relationship statement about creativity workshop session as a process

Relationship statement about creativity workshop session as a process.

The creativity workshop session would be used as a process to assess the extent to which a trainee's creativity is improved as a result of training. Strauss and Corbin (1998) suggested using a relationship statement to explore a phenomenon under study.

1. **When** used as a tool to identify employee creativity it would include seeing if and how the individual act on ideas, doing things differently, or identifies a new approach to resolve a problem and their general problem solving ability.

Participant C21 stated that a brainstorming workshop might be organised to stimulate ideas by giving trainees a different situation or problem and asking them to explain how to solve it. Participant C15 stated that trainees could also be assigned a task which required them to act on ideas and also to generate ideas in different ways.

2. **Action/interaction** the process is the individual creativity workshop session or the group creativity workshop session. These sessions may be organised both inside and outside of the company to assess levels of employee creativity.

Participant C23 explained that an employee may be assigned either to a group workshop or an individual workshop. A new concept to resolve a problem would be presented and employees required working on their own in solving it. Sometimes production or marketing plans required the use of a problem solving session which should result in useful ideas for a project plan or the development of new product. In this case group work would be better to identify options and solutions.

3. **As a consequence** a creativity workshop session is required to assess the levels of employee creativity.

7 May 2015

#### **4.6.6.1 Properties and dimensions of the category Creativity workshop session**

Two properties of creativity workshop session (individual creativity workshop and group creativity workshop) were identified during analysis and these are discussed below along with their associated dimensions.

##### **Property 1: Individual creativity workshop**

Individual creativity workshop was identified from the analysis of interviews as a property of the category creativity workshop session. It contained two dimensions, inside individual workshop and outside individual workshop. Several participants (10 out of 45) indicated that individual creativity workshop was a useful tool for measuring the degree to which employee creativity was enhanced following attendance at a training session. They also reported that it would usually be carried out about three months after the training was completed. Respondent views were supported by the work of Al-Emadi and Maruardt (2007) and Bartlett (2001). For example, participant C35 expressed the following opinion, which was similar to those of participants C5, C24, C25, C38 and C39:

*Employees may be assigned a technical problem to solve using creative ideas as part of a creative problem solving session. This may result in innovation. It is definitely necessary to run a workshop that gets employees involved in developing creative ideas either individually or as part of a group.*

The code individual creativity workshop initially emerged during open coding but during subsequent axial coding it emerged as a property of creativity workshop session. For example, participant C24 reported their experience in the following way:

*Sometimes the company may send their employees outside of the company to attend individual creativity workshop for sharing their ideas about new product development plan or a new project plan. The company may also arrange an individual creativity workshop session within the company to solve a particular problem using innovative ideas.*

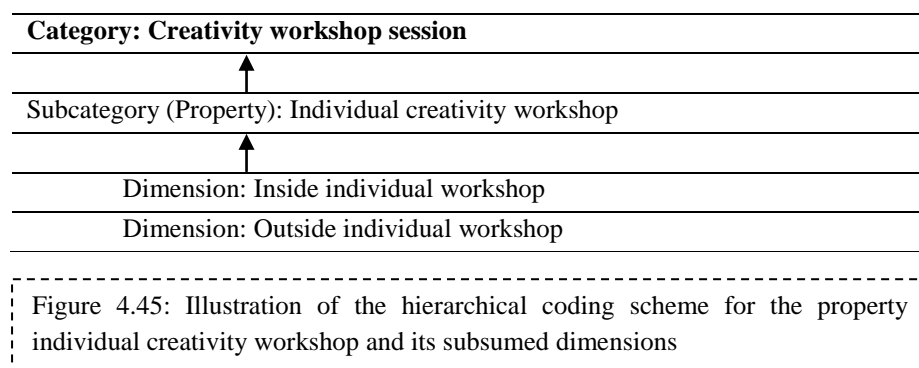
Inside individual workshop and outside individual workshop sessions were also apparent in respondent C38's views:

*To measure creativity, it is necessary to provide the employee with an assignment to create a project proposal. Then in a creativity training session it can be seen how accurately and differently they deliver the result of the original project proposal. The workshop session to achieve that could be arranged either inside or outside the company.*

Participant C35 made the following statement about the value of creativity workshop sessions:

*To see how many creative or unique ideas are generated by employees during a creativity workshop session is a good way to develop and produce new products for the market.*

During axial coding, the codes inside individual workshop and outside individual workshop were analysed for common themes and brought together as dimensions of the property individual creativity workshop during the process of parent or hierarchical coding described previously. Consequently, the code individual creativity workshop was assigned as a property under the higher category creativity workshop session during the process of subsuming several similar codes under one major code (figure 4.45).



### **Property 2: Group creativity workshop**

Group creativity workshop was identified from the analysis of interviews as the second property of the category creativity workshop session. It contained two dimensions, inside group workshop and outside group workshop. Group creativity workshop was therefore a subcategory of the category labelled creativity workshop session. A few participants (9 out of 45) indicated that group creativity workshop served as a framework in order to identify the level of employee creativity. These views were also found in the work of Al-Emadi and Maruardt (2007) and Ahmed and Baker (2003). The code group creativity workshop initially emerged during open coding but during axial coding it also emerged as a property of creativity workshop session. Participant C11 provided an example of such a session which used the brainstorming technique:

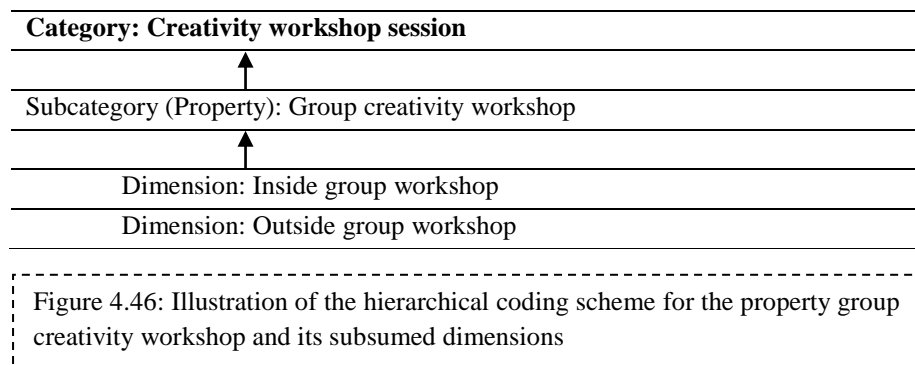
*Creativity workshops may take place inside or outside of the company and it could be a group or individual. Trainees are asked to generate new issues in relation to business to solve any particular problem. To achieve this, company may arrange a brainstorming session. For example, ask employee how the company could enter the European market.*

Inside group workshop and outside group workshop sessions were apparent in respondents C15's and C43's answer and emerged during open coding. They were similar views to those of participants C28, C35, C38 and C43:

C15, *One way to measure a trainee’s creativity is through a brainstorming workshop session, either inside or outside of the company. For example, ask them how to design a new product? You might get different ideas on the same topic from different employees.*

C43, *Management may organise a brainstorming workshop inside the company every three months where, the end of the session, participants will have to provide a detailed explanation of what they have learned from the specific event.*

During axial coding, the codes inside group workshop and outside group workshop were analysed for common themes and brought together as dimensions of the property group creativity workshop during the process hierarchical coding described previously. Consequently, the code group creativity workshop was assigned as a property under the higher category creativity workshop session during the process of subsuming several similar codes under one major code (figure 4.46).



#### 4.7 Integration of the categories

The integration of categories developed the analysis of field data and resulted in the identification of connections between them that reflected the focus of the research (subsection 3.6.3.2 and tables 4.1, 4.65 and 4.66). A coding paradigm based on Strauss and Corbin (1998) was used to link categories in a set of relationships which described the evaluation of training in terms of the causal conditions, context and intervening conditions, evaluation processes and their consequences. The various elements in the coding paradigm are discussed below.

**A. Causal conditions:** These represented the events and incidents that led to the development or occurrence of training evaluation and identified the training evaluation contexts. Two causal conditions categories were identified (training need assessment and training objectives validity) that determined the context for training evaluation. These encapsulated the contexts of trainee reaction, learning, employee productivity, employee performance, employee commitment, and employee creativity. These six contexts reflected the areas of training impact which could most usefully provide the focus for its evaluation.

For example, in table 4.65 the category training needs assessment represented the training evaluation causal condition which determined the context learning for the evaluation of training and so justified the development or occurrence of it. So, the causal contexts determined the processes to understand and manage the evaluation of training.

**B. Context:** Training evaluation context represented the processes taken to manage training evaluation. Six categories (trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity) were identified as the training evaluation contexts which contained the evaluation processes (feedback, test, productivity ratio, performance appraisal, monitoring and creative workshop session) used to assess training outcomes. For example, the category learning in table 4.65 represented a training evaluation context in which the process test was used to assess the learning acquired from the training programme. So, context determined the processes necessary for the management of training evaluation.

**C. Intervening conditions:** Training evaluation intervening conditions influenced the training evaluation context and acted to either facilitate or constrain the training evaluation processes within a specific context. One intervening condition (contextual factors) was identified which influenced the six training evaluation context categories previously indicated (trainee reaction, learning, employee productivity etc.) and subsequently, facilitated or constrained the training evaluation processes (feedback, test, productivity ratio etc.). For example, in table 4.65 the category contextual factors represented the training evaluation intervening condition which influenced the context learning and subsequently facilitated or constrained the process test in training evaluation.

**D. Process:** Training evaluation processes (feedback, test, productivity ratio etc.) were used to manage the training evaluation contexts under specific conditions. For example, in table 4.65 the category test represented a training evaluation process to assess the context learning within the intervening contextual factors. Therefore, learning had consequences for training and justified its evaluation because it was a direct outcome of it. So, processes were the action/interaction strategies within training evaluation used to assess the training evaluation context.

**E. Consequences:** Consequences were the outcomes or results of the training evaluation processes and so defined the training programme outcomes. The categories that formed the consequences were immediate outcomes of a training programme, direct outcomes of a training programme, performance outcomes of a training programme and behavioural outcomes of a

training programme. For example, in table 4.65 the category direct outcome of a training programme represented a training evaluation consequence as the outcome of the process test.

Under a specific set of conditions, causal conditions (A), context (B), intervening conditions (C) and action and interaction strategies (D) were taken to manage a phenomenon which had certain consequences (E). That set of relationships is reflected in figure 3.7. For each of the six training evaluation contexts, a coding paradigm was created to establish the connections and relationships between them in terms of the causal conditions, intervening conditions, processes and their consequences. For example, the coding paradigm for training needs assessment (as a causal condition), required the assessment of learning as an outcome of training (the context). Then learning would be assessed through a test (as a process) to reflect the direct outcomes of a training programme (as a consequence) within an organisational contextual factors (as an intervening condition). A set of connections demonstrated in table 4.65.

Table 4.65: The coding paradigm used during axial coding based on Struass and Corbin, 1998

Components		Description	How to identify	Example of the categories
A	Causal condition	Events or incidents that lead to the occurrence of a phenomenon.	Point out by: because, due to, on account of.	Training needs assessment
B	Context	Set of properties and that pertain to a phenomenon and conditions within the strategies are taken.	Under the specific condition.....	Learning
C	Intervening condition	Broad and general condition bearing upon strategies.	Organisational culture (Goal and values, Policy and norms, Stakeholder involvement, Learning culture, Structure, Leadership style and Communication network).	Contextual factors
D	Strategy / Process	Manage, handle, and carry out a phenomenon.	Action oriented verbs or participle.	Test

Another example would be the use of a coding paradigm to codify training objectives validity (as a causal condition), which required the assessment of employee performance (as a context). That could be achieved through performance appraisal (as a strategy/process), producing the performance outcomes of a training programme (as a consequence) in an organisational contextual factors (as an intervening condition). A set of connections demonstrated in table 4.66.



Table 4.66: The coding paradigm used during axial coding based on Struass and Corbin, 1998

Components		Description	How to identify	Example of the categories
A	Causal condition	Events or incidents that lead to the occurrence of a phenomenon.	Point out by: because, due to, on account of.	Training objectives validity
B	Context	Set of properties and that pertain to a phenomenon and conditions within the strategies are taken.	Under the specific condition.....	Employee performance
C	Intervening condition	Broad and general condition bearing upon strategies.	Organisational culture (Goal and values, Policy and norms, Stakeholder involvement, Learning culture, Structure, Leadership style and Communication network).	Contextual factors
D	Strategy/ Process	Manage, handle, and carry out a phenomenon.	Action oriented verbs or participle.	Performance appraisal

#### 4.8 Development of the core category, training programme outcomes, and the development of the emergent theory

The core category represented the central phenomenon of the research (section 3.6.3.3). Selective coding was used to identify the core category and integrate all other categories with it. The core category was used to develop the emergent theory (based on Strauss and Corbin, 1998). Initially it was necessary to formulate a storyline (based on the integration all categories) which encapsulated the main theme of the research. A process which led to the identification of the core category, training programme evaluation, which first appeared as an in vivo code during analysis (table 4.67).

Table 4.67: Example training programme outcomes as an in vivo code obtained during open coding.

Interview code	In vivo code
C5, Actually, getting their opinion is significant in order to understand the training programme outcomes. C18, It is very important to determine whether training could meet its objectives and that can be found by assessing the level of employee job performance. If you can do that you would be able to measure training programme outcomes.	Training programme evaluation

The code training programme outcomes emerged frequently from participant responses in the context of seeking to explain what resulted from training, the degree to which training achieved the intended outcomes and how they should be evaluated. The core category originally emerged as a code through open coding but during axial coding (based on a coding paradigm) and selective coding (based on the reflective coding matrix) it was verified as the core category. Initially during the coding process the consequences of the

category trainee reactions emerged as a training programme outcome and became a temporary core category. The same process was applied to the other context categories of learning, employee commitment, employee productivity, employee performance and employee creativity. That iterative process continued until the core category was identified as the one to which all other categories related. For example, participant C32 commented in terms that clearly identified the significance of the core category:

*When employees attend training, they feel relaxed because of having a supportive learning environment. Training may not be valued by the employee until they are satisfied with the training design and environment. If a trainee's reaction in relation to the learning environment is positive that would result in the increased likelihood of a positive impact on training programme outcomes.*

In the determination of the core category, four categories were identified as consequences of the training evaluation processes (table 4.67). The four categories were immediate outcomes of a training programme outcome, direct outcomes of a training programme, behavioural outcomes of a training programme and performance outcomes of a training programme. The 4 consequences led to the development of the core category, training programme evaluation. The four categories were all found to be connected to the other categories through selective coding. The categories were found to be linked together as follows:

- A) The category immediate outcomes of training programme were the consequences of the training evaluation process used to assess the context trainee reactions;
- B) The category direct outcomes of a training programme were the consequences of the training evaluation process used to assess the context learning;
- C) The category behavioural outcomes of a training programme were the consequences of the training evaluation process used to assess the context employee commitment and
- D) The category performance outcomes of a training programme were the consequences of the training evaluation process used to assess the context creativity, employee productivity and employee performance.

The four outcomes of a training programme were the result of a successful training evaluation processes (section 5.2.5, figure 5.1). Training programme evaluation would vary depending on the context that a specific training event was designed to meet. Meaning that in each context, a specific training evaluation processes should be developed to evaluate the value of the training delivered. Table 4.68 summarises the relationships between the categories identified and relates each to the core category, training programme evaluation.

Table 4.68: The relationship between the categories together with their relevance to the core category training programme evaluation

Contexts	Properties	Strategies/ Processes	Mode of consequences (the outcomes led to the development of the core category)	Core category
Reaction	Training courses, Training design, Learning environment	Feedback	Immediate outcomes of a training programme outcomes (section 4.3.1 comments by C5, C30, C33)	Training programme evaluation
Learning	Knowledge, Skills, Attitudes	Test	Direct outcomes of a training programme (section 4.3.2 comments by C2, C11)	
Employee productivity	Output productivity, Service productivity	Productivity ratio	Performance outcomes of a training programme (section 4.3.3 comments by C5, C26, C34)	
Employee performance	Task performance, Adaptive performance	Performance appraisal	Performance outcomes of a training programme (section 4.3.4 comments by C18, C21)	
Employee commitment	Teambuilding, Punctuality, OCB, Motivation	Monitoring	Behavioural outcomes of a training programme (section 4.3.5 comments by C15, C18)	
Employee creativity	Act on ideas, Doing things differently, Problem solving ability	Creative workshop session	Performance outcomes of a training programme (section 4.3.6 comments by C25, C38)	

The four consequences of training identified provided understanding of the purposes of training and were used to identify the core category. That involved reading, re-reading and coding the interview transcripts in a continual, iterative process, plus the use of analytic memos to capture respondent thoughts about the core category. This can be illustrated in the following analytic memo examples (tables 4.69 and 4.70).

Table 4.69: Analytic memo relationship statement about the consequence behavioural outcomes of a training programme

<p>Relationship statement about behavioural outcomes of a training programme as a consequence of it.</p> <p>The behavioural outcomes of a training programme emerged as a way of understanding the consequences. It is the consequence of the context employee commitment and was used to contextualise the core category. During the iterative and ongoing analysis of interviews, this becomes more specific and conceptual. Strauss and Corbin (1998) suggested using a relationship statement to explore a phenomenon under study.</p> <ol style="list-style-type: none"> <li><b>When</b> used as a tool to identify employee commitment including individual teambuilding, punctuality, motivation and OCB.</li> <li><b>Action/interaction</b> of the process is the application of observation and a commitment survey. These may be organised inside the company to assess employee commitment.</li> <li><b>A consequence</b> of employee commitment is the behaviour outcomes of a training programme.</li> </ol> <p>15 May 2015</p>
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Table 4.70: Analytic memo relationship statement about the consequence direct outcomes of a training programme

Relationship statement about direct outcomes of a training programme as a consequence of it.

The direct outcomes of a training programme emerged as a way of understanding the consequences. It is the consequence of the context learning and was used to contextualise the core category. During the iterative and ongoing analysis of interviews, this becomes more specific and conceptual. Strauss and Corbin (1998) suggested using relationship statement to explore a phenomenon under study.

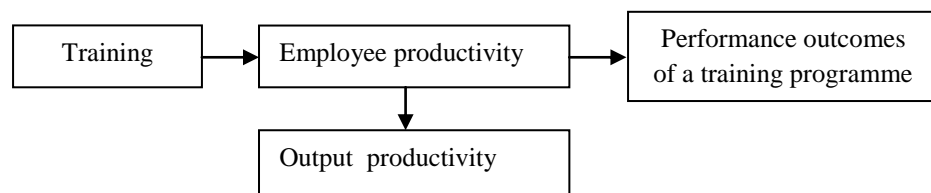
1. **When** used as a tool to identify employee learning, including knowledge, skills and attitudes.
2. **Action/interaction** of the process is the pre- and post-test and observation. These may be organised inside the company to assess employee commitment.
3. **A consequence** of employee learning is the direct outcomes of a training programme.

It was then necessary to confirm the identification of the core category. By reading, re-reading and reviewing the coding of interview transcripts, respondent thoughts about the core category were captured and crystallised. An outcome subsequently confirmed through analytic memo networking (table 4.71).

Table 4.71 Analytic memo reflecting the networking and consequences of the performance outcomes of a training programme

The performance outcomes of a training programme emerged as a consequences of employee productivity. The performance outcomes of a training programme are one of the modes of consequences that led to the development of the core category or storyline. However, it was not counted as the core code at this point. The code performance outcomes of a training programme were confirmed as one of the mode of consequences that led to the development of the core category in the second part of the coding cycle. Training increased work capacity which resulted in higher employee productivity and performance. Thus, companies assess employee productivity via output productivity with a view to measuring the performance outcomes of a training programme. In other words, the property work capacity defined the context employee productivity in which the action/interaction strategy or process output productivity was taken to manage the phenomenon which provided the consequence the performance outcomes of a training programme. For example, Participant C34 made the following observation.

*“Employee productivity is assessed to evaluate the training programme in the organisation because it is able to increase work capacity which results in employee productivity. However, sometimes it is very challenging and complicated to determine in practice whether it really increased employee productivity. Though, I believe there is a significant impact of training on productivity; thus, an organisation potentially assesses employee productivity using the output productivity technique with regard to measuring the performance outcomes of a training programme.”*



The confirmation process began with the consequences of the category training programme outcomes and revisiting the raw data to re-read and think about what was known about it

and how that was known? In the confirmation process, the four modes of understanding the consequences were regrouped and the common theme identified. Finally, the links between all categories and the core category were confirmed through the reflective coding matrix (table 4.72).

Because the core category, training programme evaluation represented the storyline of the research and linked all the categories, it was placed in the appropriate block in the reflective coding matrix (table 4.72). With the core category block identified, the other blocks were completed by the addition of all other categories. In the process of allocating categories to blocks each choice was clarified, refined and verified, to ensure that each sufficiently supported the core category and that the whole was consistent with the raw data. That involved the iterative process already described and was ongoing throughout the research.

The conditional relationship guide determined the relationships and interactions between the categories that had been identified during analysis. It also clarified how the consequences of the categories were to be understood. It identified the consequences of the major categories to which all other categories were related. The properties and modes of understanding the consequences were also an indicator of the achievement of theoretical saturation. Table 4.72 is the reflective coding matrix used for the identification of the core category from all the categories established through the use of the conditional relationship guide. The objective of developing the reflective coding matrix was to create the relational hierarchy that identified the core category to which all other categories were related. Once the core category was identified, all other categories become subcategories. The subcategories in the relational hierarchy became the descriptors of the core category, including properties, process, dimension, context and modes for understanding the consequences. The descriptors in the reflective coding matrix defined and contextualised the core category.

In constructing the reflective coding matrix, the essential action/interaction processes of each category were also identified. Initially 13 processes were identified and then progressively reduced by comparing each process with the other descriptors (properties, dimensions, contexts and modes of understanding). A process which included combining processes where appropriate. It was a technique based on the reflection of how each descriptor helped to understand the process and the core category. After constant comparison of all categories, the number of processes was reduced to six. The six processes represented the main actions that the participants engaged in during training evaluation (table 4.72).

The reflective coding matrix was used as a guide in the development of the storyline. Each concept in the coding matrix (process, properties, dimensions, contexts and modes of understanding the consequences) enabled the core category, training programme evaluation to be more accurately articulated. Each category was described and supported by participant statements indicating their relationship with the core category. For example, in the reflective coding matrix, the properties training course defined the context reactions in which the action/interaction strategy of feedback was used to manage the consequences of training programme outcomes. The core category needed to fit and describe the phenomenon it related to and focus on the 15 categories and 126 subcategories identified. Corbin and Strauss (1998) described the core category as the sun having defined relationships with each of its planets. Identifying the core category and systematically relating it to the other categories allowed a context specific theory of training programme evaluation to be derived (section 5.2.5, figure 5.1).

Table 4.72: Example: The relationship between the categories, and the relationship of each category to the core category in a reflective coding matrix

<b>Reflective coding matrix</b>						
<b>Core Category</b>	<b>Training programme evaluation</b>					
<b>Processes/ Strategies</b>	<b>Feedback</b>	<b>Test</b>	<b>Productivity ratio</b>	<b>Performance appraisal</b>	<b>Monitoring</b>	<b>Creativity workshop session</b>
<b>Properties</b> (Characteristics of categories)	Training courses	Knowledge	Output productivity	Task performance	Team building	Act on ideas
<b>Dimensions</b> (Property location on continuum)	Course content, Trainer skills, Course materials	Applying ideas, Understanding, Evaluating ideas	Individual production rate, Individual target level production rate	Task proficiency, Communication, proficiency, Leadership proficiency, Management proficiency	Teamwork, Work for group goals, Work in a small group	Creating creative ideas, Thinking and doing
<b>Contexts</b>	Trainee reaction	Learning	Employee productivity	Employee performance	Employee commitment	Employee creativity
<b>Mode of understanding the consequences</b> (outcomes)	Immediate outcomes of a training programme	Direct outcomes of a training programme	Performance outcomes of a training programme	Performance outcomes of a training programme	Behavioural outcomes of a training programme	Performance outcomes of a training programme

A paradigm model was developed using the reflective coding matrix and coding paradigm to develop the emergent theory, validate the relationships between elements in it and to refine and develop the categories in order to provide density to the theory (table 4.73 and section 5.2.5, figure 5.1). According to Strauss and Corbin (1998), the paradigm model

was used to link categories, properties and the core category in a set of relationships. Relationships which described the phenomenon under study in terms of the causal and contextual conditions, action/interaction strategies and their consequences. A simplified form of this model was represented as the emergent theory (section 5.2.5, figure 5.1).

Table 4.73: The coding paradigm indicating the links between the categories and the core category, based on Strauss and Corbin (1998)

<b>Causal conditions</b>	<b>Contexts</b>	<b>Properties</b>	<b>Intervening conditions</b>	<b>Strategies/ Processes</b>	<b>Outcomes/ Consequences</b>	<b>Core category</b>
Training needs assessment, Training objectives validity	Trainee reaction	Training courses, Training design, Learning environment	Contextual factors	Feedback	Immediate outcomes of a training programme output	Training programme evaluation
Training needs assessment, Training objectives validity	Learning	Knowledge, Skills, Attitudes	Contextual factors	Test	Direct outcomes of a training programme	
Training needs assessment, Training objectives validity	Employee productivity	Output productivity, Service productivity	Contextual factors	Productivity ratio	Performance outcomes of a training programme	
Training needs assessment, Training objectives validity	Employee performance	Task performance, Adaptive performance	Contextual factors	Performance appraisal	Performance outcomes of a training programme	
Training needs assessment, Training objectives validity	Employee commitment	Teambuilding, Punctuality, OCB, Motivation	Contextual factors	Monitoring	Behavioural outcomes of a training programme	
Training needs assessment, Training objectives validity	Employee creativity	Act on ideas, Doing Things differently, Problem solving ability	Contextual factors	Creativity workshop session	Performance outcomes of a training programme	

#### 4.9 Summary

The data analysis process in grounded theory is intuitive, complex and iterative. Each aspect of the process directed the search for new and additional data, a process which inevitably also led to the refinement of codes previously identified. During the iterative and ongoing analysis of interviews, categories became more specific and conceptual. Categories frequently emerged during open coding but subsequently categories also emerged alongside their properties and dimensions during axial coding using the coding paradigm and the conditional relationship guide. The conditional relationship guide

verified the relationships between categories and helped develop the reflective coding matrix with a view to the identification of the core category.

This chapter developed and discussed the core category of training programme evaluation, along with the associated categories and subcategories that emerged from the research. Training programme evaluation emerged as the core category because it effectively connected all other categories to it (the phenomenon under research). The identification of the core category, systematically relating it to other categories allowed a context specific theory of training programme evaluation to be derived. This theory emerged through analysis from the conceptual categories which were grounded in data provided by respondents and supported by company documentation and relevant literature. The next chapter will further discuss and interpret the research findings, discuss and compare them with literature to support the development of the emergent theory. At the end of the next chapter the justification for the emergent context specific theory and contribution to existing knowledge will also be discussed.



## **Chapter 5: Analysis and discussion of findings**

### **5.1 Introduction**

This chapter will analyse the findings discussed in chapter 4 in a way that answers the research questions, thereby meeting the objectives and aim for the research as discussed in chapter 1. This chapter encompasses three main sections. First, the interpretation of the analysis of interviews and the findings from the emergent categories in relation to the research questions established for the research. Specifically, explored will be the similarities and differences between participant views and the existing literature on training evaluation. Second, based on the research findings, a context specific theory for the evaluation of training within the textile industry in Bangladesh will be developed and, based on that, a conceptual model will be proposed. Third, the conceptual theory and model that emerged will be compared with existing models for the evaluation of training through a compare and contrast analysis. That comparison will provide the justification for the emergent theory and model to be considered as both significant contributions to new knowledge, and of practical value to managers in the research context.

### **5.2 Interpretation of findings in relation to the research questions**

This section focussed on the interpretation of findings for each research question introduced in chapter 1. In that process, the findings will be compared with existing literature and appropriate conclusions drawn.

The specific categories of meaning related to training evaluation were identified in chapter 4, which resulted in the storyline for the research being crafted. That led to the creation of the core category. The term training programme evaluation emerged as the core category because it was connected to all other categories and formed the basis for the theory of training programme evaluation derived in section 4.8.

**5.2.1 Research question 1:** How companies in the textile industry in Bangladesh assessed the effectiveness of training programmes? (relevant to objectives 1 and 5, section 1.7).

This research question implied the exploration of two aspects of training evaluation. First, the identification of the contexts used by organisations to assess the results and outcomes of training. Second, the identification of the processes adopted by organisations to measure the training contexts in order to evaluate the results and outcomes from it. The discussion relevant to this research question focussed on the first of those aspects, the contexts used to assess training results and outcomes. The second aspect of training evaluation – the processes for its evaluation – was relevant to research question 3 and will be discussed there (section 5.2.3).

Responses obtained during interviews about the training evaluation contexts (section 4.3) indicated that training evaluation within the textile industry in Bangladesh was based on four contexts. The four contexts were: category A - trainee reaction, category B - learning, category C - employee productivity and category D - employee performance. The justifications for the creation of each category, along with their operational definitions were discussed in section 4.3.

### **Category A - Trainee reaction**

Trainee reaction was assessed to provide a measure of the immediate reactions of trainees to a training programme. The operational definition of trainee reaction was created from the amalgamation of several comments made by respondents who generally believed that trainee reactions were the best and easiest way to measure the immediate outcomes of training (section 4.3.1). The definition created was broadly consistent with the literature discussed in chapter 2. Trainee reaction sought to measure the extent to which trainees were satisfied with the training course, training design and learning environment for the programme that they had just completed. In the analysis, the appropriateness of training methods was identified as the most significant part of the design process. The justification for the assessment of trainee reactions was that if trainees were satisfied with the training course, training design and learning environment, it was more likely that the primary objectives of the training had been achieved and its outcomes would be more likely to be evident through the successful transfer of training to work activities. However, the existing models did not consider training design within the reaction level of evaluation. Trainee reaction was thought by respondents to be particularly relevant to goal-based evaluation approaches. Respondent views were consistent with the literature (for example, Philips and Philips, 2016; Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2002; Hamblin, 1974) which argued that when reaction levels to training was high, an increased likelihood of positive outcomes in terms of the impact of training on work behaviour and performance resulted. Conversely, inadequate trainee engagement with the programme would result in the reduced impact of training on outcomes.

However, the initial reaction to training would not provide a definitive answer about the degree to which a particular training course had been successful. That was because many factors impacted on the level of success achieved. For example, trainees may have enjoyed the experience of the training and found the tutor engaging but if they did not apply what they learned to their jobs then the programme would not impact on the performance or commercial success of the organisation. Points recognised in respondent comments

(section 4.3.1) and also evident in the literature reviewed in chapter 2. For example, training evaluation models that contained trainee reaction also incorporated other factors that sought to capture the impact of training on aspects of individual, team, departmental and organisational functioning. Philips and Philips (2016) and Hamblin (1974) asserted that trainee reactions were useful in the assessment of the degree to which the conditions that surrounded the delivery of training were conducive to learning taking place. This point being slightly different to the earlier line of argument in that it proposed that positive conditions surrounding training encouraged participant learning which would then make training transfer and work behaviour changes more likely. The argument being that it was not simply positive feelings towards the training experience that impacted on subsequent behaviour, but that such reactions facilitated learning, which in turn impacted on the likelihood of its application.

### **Category B - Learning**

Learning as reflected in the KSAs that trainees acquired during training was also frequently assessed by organisations to measure the effectiveness of training according to respondents. The operational definition of learning created (section 4.3.2) was consistent with the literature discussed in chapter 2. According to respondents and the literature, learning reflected the extent to which trainee KSAs improved and were subsequently applied to work activity. The identification of appropriate training methods was considered by respondents to be significant in the enhancement of learning. The justification for learning being included was that it was assumed that the extent to which trainee KSAs improved would be automatically reflected in their work activities. Therefore, learning was assumed to indicate that the direct outcomes of the training objectives had been achieved. Such improvement would usually be measured against training programme targets. The assessment of learning was also thought by respondents to be relevant to goal-based evaluation approaches. Respondent views were consistent with the literature reviewed in chapter 2 which argued that training was successful when trainees learned something from it and were able to apply the acquired KSAs to their work. Specifically, respondents thought that learning should be reflected in the degree to which learning improved the ability of trainees to perform technical and non-technical tasks and contribute to increased levels of self-efficacy and self-directed behaviour (section 4.3.2). The implication being that trainee learning should be demonstrated at the end of a training session and subsequently in their work. The work of (Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2002; Hamblin, 1974) did not consider self-efficacy and self-directed behaviour as aspects of learning. However, respondents felt that they had a

significant impact on how learning was transferred to the workplace and hence the level of training success achieved. The views of respondents were also found in the training transfer literature of Blume et al. (2010). Respondents recognised that the subsequent assessment of the transfer of KSAs to work was not generally undertaken as part of the evaluation of training. However, they felt that learning offered a simple and easily obtained means of acquired KSA assessment at the end of a course.

The findings from this research were consistent with Kirkpatrick (1994) which argued that when trainees responded positively to what they had learned from training an increased likelihood of training having a positive impact on work behaviour and therefore performance and company success existed. Results also found in the work of (Philips and Philips, 2016; Guskey, 2002; Kaufman, 1995; Hamblin, 1974). However, respondents recognised that demonstrating that learning had been achieved at the end of a training event would not provide a definitive answer to the question whether a particular training programme was successful because many other factors also impacted on the actual level of success achieved. For example, the acquisition of KSAs through training did not automatically mean that they would be transferred to work activities. Failure to apply what was learned to their jobs meant that training would not impact on the level of individual, team, departmental or organisational performance or organisational success. Respondents thought that the primary focus of training was the achievement of learning outcomes which should result in meaningful changes in job performance. They also recognised that the extent to which learning was actually transferred to work activity, along with the identification of what caused training to fail to be transferred, were the key factors to evaluate (views supported by Grossman and Salas, 2011; Blume et al., 2010).

Respondents argued that a favourable learning culture was necessary along with several other factors for employees to exercise their newly acquired KSAs in their work and hence contribute to improved performance and organisational success. Therefore, learning needed to be incorporated with other factors to capture the fullest understanding of the level of success achieved and where a programme could be strengthened to enhance its overall impact. Points also evident in the existing training evaluation models. For example, all the models reviewed in chapter 2 included learning at level 2, with two or three assessment levels beyond that. Therefore, based on this research and existing literature, learning represented the second level of training assessment (section 4.3.2).

### **Category C - Employee productivity**

Respondents explained that employee productivity was often used to assess the performance

outcomes of training. The operational definition was created from the words of participant C5 (section 4.3.3). Employee productivity referred to increased work capacity or work efficiency achieved through minimum effort which resulted in the increased productivity of the employees who had attended training. It measured the extent to which trainee output productivity or service productivity increased as a result of training. Particular training methods, for example on the job training and off the job training were thought be respondents to be significant ways to increase employee productivity at work. The extent to which employee productivity improved following training was generally assumed to mean that the performance outcomes of training had been achieved. It also reflected an aspect of training transfer as it was based on actual work behaviour. According to respondents, it was particularly relevant to goal-based training evaluation approaches. Participants believed that employee productivity was an effective way to measure the performance outcomes of training as reflected by the degree to which trainee output productivity (based on individual production, individual target level production and service productivity) increased. These findings were supported by the literature on the impact of training on employee productivity. For example, Rohan and Madhumita (2012) and Reenen and Reed (2005) reported that training played an important role in the improvement of productivity and placing organisations in a solid position to face competitive market challenges. Halfmann (2013) also suggested that training led to improved morale, improved productivity and helped achieve employee involvement in decision making.

Participants explained that training represented a holistic approach which could be regarded as successful when trainee work capacity increased with minimum effort, producing more good quality output and service in less time. These measures focussed on the individual performance outcomes of training as discussed in section 4.3.3. The views of respondents differed slightly from the literature discussed in chapter 2. That literature argued that the most effective measurement of improvements in productivity, quality, efficiency, sales volume, reduced costs or increased profit was the collective performance of a company rather than individual performance achievements.

When companies assessed trainee output and service productivity following training it was most frequently done after the assessment of trainee reactions and learning, for example, the comments from C26 in section 4.3.3. However, such an approach would not produce a definitive answer on whether particular training was successful in terms of increased employee productivity. That was because many other factors impacted on the level of success achieved by training. For example, other factors that impacted on the level of productivity and profitability achieved included work capacity, product quality, outsourcing,

supply chain management, marketing strategy and effective management. No training or training evaluation literature was found that justified the claim of a significant relationship between training and enhanced profitability.

#### **Category D - Employee performance**

Respondents said that employee performance was frequently used to assess the performance outcomes of training and its operational definition was created from the words of participant C5 (section 4.3.4). Employee performance reflected the extent to which trainee task performance and adaptive performance improved after training. Particular training methods, for example, on the job training and off the job training were considered by respondents to be significant ways to increase employee performance at work. The extent to which employee performance improved was generally taken to mean that the performance outcomes of training had been achieved. Employee performance was said by respondents to be relevant to goal-based evaluation approaches. The relationship between training and employee performance was supported by the literature. For example, Lisbon et al. (2016) and McDowall and Saunders (2010) argued that the purpose of training was to build up an effective workforce, increase employee performance and improve company competitive position. Halfmann (2013) also suggested that training led to improved morale, productivity and helped achieve employee involvement in decision making.

Employee performance was considered by respondents to reflect two different types of performance. First, task performance which was comprised of task, communication, leadership and management proficiency components. Secondly, adaptive performance which comprised improved interpersonal adaptability, management of stress and management of crises situations. See for example, the comment from C21 in section 4.3.4. The views of respondents were broadly supported in the work of Philips and Philips (2016) and Kirkpatrick (1994) who argued that the measurement of improvement in job efficiency, sales volume, reduced costs or increased profit had a significant impact on identifying overall company performance.

It was clear from respondent comments and the literature that companies ought to focus on both task performance and adaptive performance components to assess whether all aspects of trainee performance had improved as intended. It was thought by respondents to be appropriate to measure employee performance alongside trainee reaction, learning and employee productivity to obtain a comprehensive understanding of the value generated by training. Employee performance referred to the achievement of tasks measured against a

predetermined standard of accuracy and speed that would be manifested through the activities of efficient employees. In this regard, employee performance measured the extent to which a trainee's task performance and adaptive performance improved as a result of the training provided. A view which differentiated it from employee productivity. Eight performance components, five of which referred to task performance in the form of job-specific task proficiency, non-job-specific task proficiency, written and oral communication proficiency, supervision and management (for example, Pulakos et al., 2000; Locke, and Latham, 1990). Results subsequently, taken up by Afshan et al. (2012) and Meyer and Smith (2000) who indicated that the main purpose of training was to improve employee competency in the drive to maximise task proficiency and human capital effectiveness. Similarly, Raja et al. (2011) suggested that a relationship between training and employee performance existed, but they did not explore how their four dimensions of task performance could be measured to evaluate the performance outcomes of training. Thus, employee performance should be considered an effective reflection of the performance outcomes of a training (as distinct from employee productivity) based on the current research and literature.

Although the research suggested that employee performance had a part to play in the effective evaluation of training, it also found that performance outcomes could be affected by several other factors, not related to training. They included individual difference, work climate and organisational culture, all of which needed to be considered if training evaluation was to be effective. The respondent views expressed were supported by the training transfer literature (for example, Tannenbaum et al., 2012; Grossman and Salas, 2011; Blume et al., 2010). Corina, et al. (2011) also pointed out that the performance of an organisation depended on strategy, leadership, structure, quality, performance management, innovation and development, efficient management of a firm, information technology, corporate governance and external environment in addition to employee performance.

#### Conclusions about Research Question 1

The evaluation of training was well understood by participants and widely used in the textile industry in Bangladesh. The research identified that the textile industry frequently measured the value of training based on category A - trainee reaction, category B - learning, category C - employee productivity and category D - employee performance. The first two levels of reaction and learning were also the first two levels in existing training evaluation models discussed in this chapter and chapter 2. The research also found that the reaction and learning levels were most frequently used in the textile industry because of

their simplicity and ease of use. The resources needed to measure these two factors were also readily available in most companies and the results could be determined quickly.

It was understood by respondents that trainee reaction and learning alone were not enough to determine the success of training, but they provided an understanding of the primary output and impact of it. These categories were also found in existing training evaluation models but were confirmed by this research in a different context. However, unlike the current research, the existing models did not consider training design as part of the category reaction. The current research identified it a significant contribution to understanding what influenced trainee reactions to the training experienced and hence the likely effectiveness of it. In addition, existing models did not consider attitudes in terms of self-efficacy and self-directed behaviour, factors the current research found relevant to the learning achieved. Therefore, this research extended the scope of the existing models through the addition of several factors identified from the views of respondents and supported by relevant literature.

Category C - employee productivity and category D - employee performance were also thought by respondents to be effective ways to measure the value of training within the context of the textile industry in Bangladesh. Respondents recognised that these were more complex to determine, more resource demanding and more time consuming to evaluate than the categories of trainee reaction and learning (sections 4.3.1 and 4.3.2). Hence, it was concluded that if less complex and simpler ways could be found to assess them, they would offer significant additions to training evaluation within the research context. However, respondents suggested that these categories might not apply to all organisations. That was because factors including company size, profitability and resource availability could influence what might be possible. Existing training evaluation models did not include employee productivity or employee performance factors that impacted on the identification of training outcomes or success. Assessed through the properties of employee output productivity, service productivity, task performance, and adaptive performance, these categories were considered by respondents to be significant to the assessment of training outcomes (sections 4.3.3 and 4.3.4). No literature was found that specifically considered the impact of these factors on training, but the categories were supported by relevant literature as a reflection of employee contribution to organisational performance. Thus, this research added new knowledge and identified areas for future research in relation to employee productivity and employee performance for training evaluation in a new and different research context.



**5.2.2 Research question 2:** What other factors were required or useful for the evaluation of training programmes within the textile industry in Bangladesh? (relevant to objectives 2 and 5, section 1.7).

This research question guided the exploration of the research data for additional factors to those identified in research question 1 that could be used to evaluate training within the textile industry in Bangladesh. The discussion of findings in relation to research question 2 focussed on the context aspects of training evaluation and demonstrated that it was fully answered. The respondent information relevant to research question 2 indicated that two additional factors (category E - employee commitment and category F - employee creativity) could be significant for the evaluation of training within the textile industry in Bangladesh.

### **Category E - Employee commitment**

The operational definition of employee commitment was created from the amalgamation of several respondent comments (section 4.3.5). Respondent views were that employee commitment reflected the additional level of commitment to their job and company that trainees exhibited as a result of training. Respondents also thought that it was relevant to goal-based evaluation approaches. Respondents explained that training could be regarded as successful, if it contributed to improvements in teambuilding, punctuality, OCB and motivation as properties of employee commitment. Improvements they argued that assumed that improved levels of employee commitment were reflected in the enhanced behavioural outcomes indicated. Employee commitment therefore offered a potentially significant context for the measurement of training effectiveness. The views of participants about commitment as a context for the measurement of training effectiveness were not reflected in the existing training evaluation models reviewed in chapter 2.

Respondents thought that employee commitment represented an invisible value held by employees which, if enhanced through training, could encourage them to perform their work in ways which improved individual, team and company performance. Effective and successful training was thought to enhance employee psychological attachment to the company which in turn resulted in the other benefits indicated. The role of training in fostering employee commitment was supported by several writers (for example, Rahman, 2011; Kooij et al., 2010; Ahmed and Baker, 2003; Bartlett, 2001). These writers argued that training built an effective, committed workforce which resulted in improved competitive advantage. However, none of those writers suggested that commitment could be used to measure the effectiveness of training. Thus, based on employee views and indirect support from appropriate literature, employee commitment and its associated

properties of punctuality, teambuilding, OCB and motivation should be considered as criteria through which to evaluate the value of training.

Participants explained that training could change trainee behaviour towards their job and duties, which would be expected to result in increased levels of teambuilding. They also suggested that the objectives of off the job training and management development training included the capability and commitment to work as part of a team (views supported by Lisbon et al., 2016; Kooij et al., 2010; Brum, 2007). The relationship between punctuality, positive trainee attitudes and training was also found in the work of several writers (for example, Lisbon et al., 2016; Brum, 2007) who found a significant relationship between them. Consequently, improved punctuality and reduced absenteeism would make significant contributions to employee effectiveness and commitment (views supported by Kooij et al., 2010; Al-Emadi and Marquardt, 2007).

Respondents said that training could improve positive attitudes towards the organisation and its objectives, which would be expected to result in increased levels of OCB. When OCB was present, respondents thought that it resulted in higher levels of employee commitment, a view supported by the literature (for example, Ahmed, 2011; Foote and Tang, 2008; Dockel et al., 2006; Ahmed and Bakar, 2003; Cheng, 2001; Donovan et al., 2001; Mayer and Smith, 2000; Organ, 1997; Tannenbaum et al., 1991). The relationship between OCB and training was taken up in the work of Le Roy and Rioux (2013) and Rioux (2012) who found a significant relationship between them. They also suggested that the presence of OCB in the workplace brought many advantages to the organisation as participants became more supportive of each other and engaged with things beyond their job descriptions.

The identification of the level of employee commitment required the assessment of employee motivation because (respondents assumed) a motivated employee would experience greater levels of satisfaction from their work and would be more engaged with decision making. That view was consistent with the literature (for example, Dockel et al., 2006; Ahmed and Baker, 2003) which argued that commitment was significant to human resource management practice in relation to job satisfaction, motivation and career development. These views were also found in the work of Miao (2011) and Rahman (2011) who suggested that training enhanced job satisfaction and employee development which boosted the number of motivated employees. The current research findings were similar to the findings of Meyer and Smith (2000) who regarded training as a systematic effort to enhance knowledge and attitudes with the ultimate intention of encouraging employees to become motivated and committed. Thus, the combination of respondent

views and literature indicated that employee commitment and its properties were meaningful ways to assess training outcomes and success.

The field data and literature findings supported the existence of links between training and commitment as training had the potential to lead to the development of an effective and committed workforce. However, the literature only demonstrated a link between training and commitment, it did not explore how these factors could be used in training evaluation. In addition, no training evaluation literature was found which argued that teambuilding, punctuality, OCB and motivation (as the properties of employee commitment) could be used to evaluate the success of training. Thus, the research identified a new area of training evaluation relevant to the research context. Consequently, the research extended existing training evaluation theory through the introduction this category and its associated properties as a level of assessment. In doing so, it also identified areas for future research in training evaluation in a new and different context.

#### **Category F - Employee creativity**

Respondents thought that employee creativity could also be assessed to measure the effectiveness of training. The operational definition was created from the amalgamation of several respondent comments (section 4.3.6). Employee creativity sought to measure the degree to which trainees were better equipped to solve problems using creative ideas, that they were more likely to do things differently and that they could act on the ideas created. Respondents said that such an approach would be relevant to goal-based training evaluation. Respondents explained that training could be regarded as successful if trainees improved their ability to exhibit the elements that comprised employee creativity as outlined above. The argument being that increased levels of employee creativity as the result of training meant that any new KSAs acquired would be more likely to be transferred to the workplace, applied creatively and in novel ways that would lead to the enhancement of individual, team and company performance. Employee commitment could therefore be a significant context for the measurement of training programme effectiveness and an indication that the performance outcomes had been achieved. The views of participants about the adoption of employee creativity as a measure of training programme effectiveness was not found in any literature pertaining to the training evaluation models discussed in chapter 2.

Participants indicated that creativity training, creativity workshops, leadership training, problem solving training, brainstorming workshops and managerial training had the potential to enhance levels of creativity among employees at all levels. Participants believed that when employees received these types of training, they became more effective through the application of creative

problem solving to their jobs. Training therefore provided the means to improve performance through the creation of a creative and innovative workforce. However, respondents explained that creative thinking would only be effective when employees were enabled to question the conventional ways of doing things, work on ideas and seek to apply different solutions to problems. That required the provision of opportunities, along with the freedom, facilities and support to implement new ideas. The human resource department had a responsibility, according to respondents, to arrange continuous individual learning to facilitate these requirements and to ensure that all levels of management were supportive of the application of employee creativity.

Interviewees suggested that in addition to training, the creation of a learning culture and a knowledge-based organisation was necessary to achieve effective employee creativity. Blume et al. (2010) suggested that the existence of a learning culture was a strong predictor of the effective application of training outcomes. Similar ideas were suggested by the Grossman and Salas (2011) when they claimed that a creative, knowledge-based organisation would boost creativity in order to incorporate thinking and doing, learning and application. Metaxiotis et al. (2005) proposed that continuous learning processes delivered an advantage when it came to the achievement of increased efficiency. Training clearly had the capability to foster creativity and therefore contribute to meeting the key objectives of an organisation. Unfortunately, none of these sources identified how these ideas could be used in training evaluation.

However, the adoption of employee creativity to evaluate training would not provide a definitive answer to the question whether training was successful. That was for a number of reasons, for example, training did not automatically mean that employees became creative, willing or able to apply creativity at work if the circumstances were not conducive to them doing so. In terms of this research however, that point was not developed further. That was because, as Toby et al. (2004) argued, an appropriate organisational learning culture needed to be associated with employee motivation to facilitate the transfer of creativity to the workplace and that went beyond the training evaluation focus of the current research. Also, larger, more complex and sophisticated companies were the ones that would typically arrange creativity training and they were more likely to have a favourable organisational learning culture to facilitate the transfer of learning and implementation of ideas. In such a company, employees would have the opportunity to practice the development of creative ideas and also have the necessary support and opportunity to implement them. Therefore, this type of company represented a small and specialised sub-set of the research context and most appropriately researched

separately. It does, however, identify areas of potential future research into the links between learning culture and training effectiveness.

Although employee creativity was not found in any of the existing training evaluation models, the results from this research were consistent with the work of Haythornthwaite and Kendall (2010) and Tarek (2008). They explained that continuous learning and training created innovation and creativity within the workforce, which in turn contributed to success of the organisation. A workplace became creative when its employees could do something new or differently without being directly instructed or taught to do so. That capability required training designed to encourage and enhance those qualities and a management willing to support the implications that arose from it. Andrews and Criscuolo (2013) and Wang (2013) found that the textile sectors in Bangladesh already provided training to build individual capability, creative idea development and problem solving skills across all levels of management. So, the basic capability to display creativity among employees should exist across all levels within the industry.

Conclusions about Research question 2.

In conclusion, the literature about employee commitment and employee creativity was clearly an influence on training practice within the textile industry in Bangladesh, but the industry had not included them as contexts in training evaluation. An issue that the current research identified and subsequently integrated into the new context specific model proposed as a conclusion. Plus, the research extended the existing literature on training evaluation to identify additional contexts that contributed to the subsequent development of a context specific theory and model. From the research, employee commitment and employee creativity provided a justification for training to create versatile employees and serve as factors to be included in its evaluation. Thus, employee commitment and employee creativity were integrated into the emergent theory developed through this research as appropriate categories through which to measure the behavioural outcomes of training. Also, the research added new knowledge and identified areas for future research in training evaluation within the research context.

**5.2.3 Research question 3:** How the factors identified in RQs 1 and 2 could be measured in order to assess the value or success of training programmes in the context of the textile industry in Bangladesh? (relevant to objectives 3 and 5, section 1.7).

This research question required the exploration of the processes that were or could be adopted by organisations to evaluate training in relation to the previously identified training contexts in the textile industry in Bangladesh. The techniques identified will focus

on processes and will be reviewed below to demonstrate that research question 3 was fully answered.

The responses obtained (section 4.6) identified processes to assess the contexts of trainee reaction, learning, employee productivity, employee performance, employee commitment and employee creativity within the textile industry in Bangladesh. The processes were represented by categories and were: category 1 - feedback, category 2 - test, category 3 - productivity ratio, category 4 - performance appraisal, category 5 - monitoring and category 6 - creative workshop session. Each of the processes discussed below was directly associated with a previously discussed context.

### **Category 1 - Feedback**

According to respondents, feedback was frequently used in the textile industry in Bangladesh to assess the immediate reactions of trainees to training. Trainee reaction was assumed to indicate that the immediate outcomes of the training objectives had been achieved. The operational definition was created from the amalgamation of several comments made by respondents. The definition created was consistent with the literature discussed in chapter 2.

The process feedback contained two techniques, questionnaire and discussion, as the means through which to assess trainee reactions to a training programme, for example, the quotations from C10 and C15 in section 4.6.1. These views were consistent with several writers (for example, Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2002; Hamblin, 1974) who remarked that answers to a set of questions on a pro-forma issued to each participant could be used to understand trainee reactions to training. The literature suggested that the feedback form should be designed to be easily and quickly tabulated to provide a summary of reactions to the training.

Respondents explained that it was usual practice that following a training session, a questionnaire including structured questions (which required yes/no, rating scale or multiple choice answers) and semi-structured questions (which required narrative answers) would be provided to participants to determine their reactions to the training course. See for example, the quotations from C5, C6 and C10 in subsection 4.6.1.1, views consistent with those of several writers (for example, Philips and Philips, 2016; Kirkpatrick and Kirkpatrick, 2006; Holton, 1996; Hamblin, 1974). Participants explained that structured questions based on rating scale answers usually contained five levels of rating for each question, which ranged from strongly agree to strongly disagree. Assuming each question required a strongly agree answer to demonstrate a positive response to the training received a high proportion of such scores would be required to confirm trainee satisfaction with it.

Where semi-structured questions were included each question would seek a narrative answer to allow a trainee to explain their reactions to aspects of a particular training intervention.

According to respondents, a questionnaire was a useful means through which to examine trainee immediate reactions to a training course because it would hopefully provide a reliable reflection of their views and would be simple to complete and review. That simplicity made such feedback the easiest way to quickly identify the need to change aspects of a training course, for example the course materials, learning environment or training design. That view was consistent with the work of Guskey (2002) and Hamblin (1974) who remarked that training based on good satisfaction ratings attracted trainees to attend the course in future. However, respondents felt that good satisfaction ratings alone did not confirm that the trainee had learned what it was intended that they learn. People were different in their thinking process, how they achieved understanding and their learning styles. So, rating scores could vary between trainees depending how individuals reacted to the training as designed and delivered. They suggested that feedback evaluation forms needed to contain relevant questions if appropriate and meaningful information was to be collected. The point being that individual difference should influence the content of feedback forms because it would be likely to influence trainee reactions and hence answers to questions. However, such personalisation of a feedback form would be very difficult to achieve in practice, especially if the structured approach to questionnaire design was adopted. It is for that reason that questions that required narrative answers, or the discussion option discussed below had advantages as part of the assessment process. Questionnaires as the approach to obtaining feedback was widely used in organisations in the research context and supported by the literature. Therefore, the use of a feedback form could be regarded as effective process through which to assess trainee reactions.

A different approach to obtaining feedback was identified by respondents as the discussion. That was said by respondents to be a conversation between two or more people to identify trainee reactions and feelings towards a training programme that they had recently attended. This was usually conducted by the HRD department, but the head of department occasionally arranged group or individual discussions to share views about training. However, it was said that a discussion needed to be reflective and understandable to the audience in order to achieve meaningful outcomes. The findings from this research were supported by the work of Philips and Philips (2016) and Kirkpatrick and Kirkpatrick (2006) who suggested that interviews, focus groups and informal comments could all be useful sources of information about the value of training.

It is clear from this research that both processes identified were used by companies in the

research context to assess trainee reactions to training. A questionnaire was usually based on yes/no, multiple choice or rating scale questions plus space for narrative comments, or any combinations of these. The different types of questionnaire offered alternative forms of the same (or similar) sets of questions, in which case a company would not need to adopt more than one method at the same time. Unless a greater depth of understanding about trainee reactions was required, in which case more than one method might be adopted. During a discussion to determine trainee reactions questions could be pre-determined, or it could be free flowing, discussing things regarded as important by the trainees. Alternatively, the discussion could contain a combination of both approaches. It would be unusual according to respondents for a company to adopt both a questionnaire and discussion approach to obtaining trainee reactions.

### **Category 2 - Test**

The process test was frequently used by organisations in the textile industry in Bangladesh to assess trainee learning after attending training. Learning was assumed to indicate that the direct outcomes of the training objectives had been achieved. The operational definition of test was created from the amalgamation of comments from several respondents (section 4.6.2). The definition created was consistent with the literature discussed in chapter 2. The process test contained three techniques, pre-and post-test, observation and attitude survey to assess trainee learning as a direct outcome of training. See for example, the quotations from respondents C21 and C34 in section 4.6.2. The use of tests to assess learning was consistent with the work of several writers (for example, Philips and Philips, 2016; Richard, 2011; Phillips, 2011; Kirkpatrick and Kirkpatrick, 2006; Guskey, 2002; Hamblin, 1974). However, the literature did not suggest observation or attitude survey as test process for the assessment of learning.

Participants believed that pre- and post-test options that included the exam method, interview method or presentation all offered effective and easy ways to measure the degree that employee KSAs improved after training. The pre-test which used the exam method was frequently applied in the assessment of trainee KSAs before training. Then a post-test which also used the exam method identified trainee KSAs after training. A comparison between the two sets of results indicated the gain achieved through training. Similar approaches would be adopted if the interview or presentation methods were used. See for example, the quotations from respondents C15 and C27 in subsection 4.6.2.1. Although the literature indicated above indicated that the exam and interview methods were useful to assess the extent that trainee knowledge increased after training, they did not consider presentation as a form of assessment for training evaluation. Many participants (36 out of



45) thought that presentation was a useful way to understand what a trainee had acquired as a result of training. Consequently, although no literature included presentation as a technique to examine post training knowledge within training evaluation, it was included in this research.

Participants also stated that direct or indirect observation and attitude surveys were frequently employed in the textile industry in Bangladesh for the assessment of the extent to which employee skills and attitudes improved after training. Supervisors or line managers could observe (directly or indirectly) during the normal course of their work the skills and attitudes displayed by trainees. For example, to carry out indirect observation a line manager could ask peers, subordinates and superiors about the skills and behaviour of an individual or group of employees. Alternatively, they could provide an attitude survey to the individuals sometime after training to obtain information. These results were partly consistent with Philips and Philips, 2016; Philips, 2011; Kirkpatrick and Kirkpatrick, 2006) who suggested that trainee learning could be assessed through observation because that would allow time for new skills to be applied and attitudes changed following training. However, they did not consider indirect observation or the use of an attitude survey as ways to assess employee skills and attitudes. No research or literature was found from the current research context or any other on how indirect observation or an attitude survey might be used to evaluate training. However, because they were proposed by respondents, the research incorporated these into the emergent theory and model of training evaluation which contributed to new knowledge and identified the opportunity for further research.

### **Category 3 - Productivity ratio**

According to respondents, productivity ratio was used by organisations to assess the extent to which employee productivity increased as a result of training. Specifically measured were output productivity and service productivity, as the properties of productivity ratio. Productivity ratio was not found in the training evaluation literature or models discussed in chapter 2. The research identified that in the specific research context productivity ratio was a technique used to assess employee output productivity or service productivity result in the performance outcomes of a training programme. For example, the quotations from respondents C3 and C26 in section 4.6.3. Participant views were supported by the employee productivity ratio literature of Arnold et al. (2011), Holmes and Schmitz (2010) and Aghion et al. (2009) which focused only on its function as a measure of productivity.

According to respondents, if trainee output productivity and service productivity increased following training, it could be taken as evidence that the training was successful. The

quantitative techniques which measured employee productivity were determined from the number of products an employee produced in a particular period of time and for the measurement of service productivity the number of services provided in a particular period of time. The time period chosen could be per hour, per day or per month. The ratio of units produced in the chosen time period created the productivity ratio. See for example, the quotations from respondents C3, C10 and C26 in subsection 4.6.3.1. Participant views were supported by Holmes and Schmitz (2010).

The research found that companies in the textile industry in Bangladesh sometimes used target level productivity (which reflected target level output productivity rate and target level service productivity rate) as ways to measure whether or not productivity improved following training. Target level productivity was usually determined by the strategic level of management within the business. A specific set of output objectives were first needed which were used to inform employees of the targets that they were expected to achieve. Respondents pointed out that such targets needed to be acceptable to all concerned and that employees needed to be provided with a detailed plan for their achievement. That point was supported by Khalil (1989) who suggested that the use of target level productivity first required the organisational strategic objectives to be determined which would then be broken down into more specific departmental and group objectives.

It was observed by respondents that a quantitative method of calculating the productivity ratio was the appropriate approach for the measurement of employee productivity in the research context. It provided an accurate measure of the degree that trainee productivity increased after training and could therefore contribute to the determination of whether or not a training course was successful. The assessment of trainee productivity based on the measurement of the productivity ratio was a common theme in participant descriptions. However, no existing literature was found in the training evaluation field that proposed its use for training evaluation. The findings of this research, based on participant experience and relevant literature, showed that using employee productivity to assess the degree to which the objectives of training had been achieved was feasible and would have widespread support among practitioners. Hence, it was taken forward into the development of the emergent theory and model of training evaluation, contributed to new knowledge and identified future research opportunities.

#### **Category 4 - Performance appraisal**

According to respondents, performance appraisal was frequently used by organisations to assess the extent that employee performance increased as a result of training. It also

emerged that it was used to measure employee task performance and employee adaptive performance after training. The operational definition of performance appraisal was categorised as a process from the range of views expressed by respondents (section 4.6.4). The use of it for the evaluation of training was not found in the training evaluation literature or in the associated models. This research identified that in the specific research context, performance appraisal could offer a significant means through which to assess employee task performance and employee adaptive performance outcomes of a training programme. According to respondents, organisations generally used either a monitoring system or KPIs (sometimes both) to assess trainee performance through a performance appraisal process.

The most frequently used approaches for performance appraisal were either a rating scale, or a 360 degree review. Respondents suggested that the rating scale method was most frequently used. Such methods consisted of a list of duties and work performance indicators each with a rating scale from 1 to 5 (appendix O). In the company from which appendix O originated, employees had to demonstrate a minimum rating score to be considered to have achieved a good performance rating. This finding was consistent with Arvey and Murphy (1998) and Feldman (1981). Participants also suggested that a 360 degree review system could be used to identify employee task performance and employee adaptive performance. That was because such approaches incorporated assessment and feedback from the employee's manager, supervisor, peers and team members, as well as the employee's perspectives. Participant views were supported by Hakala (2008) who suggested that performance appraisal was a procedure to measure employee performance over time and could be achieved through management by objectives, 360 degree performance appraisal or rating scales. For the purposes of the current research, management by objectives was equated with KPIs, discussed below. According to respondents, the 360 degree feedback method worked best when employees worked in small groups. That was because employees knew each other well as a result of working closely in a team. For performance appraisal to be effective respondents said that managers needed to understand the employee's duties, responsibilities, behavioural and professional abilities. That form of monitoring was common because respondents said that it was easy to use and provided a useful way to evaluate individual performance outcomes.

Participants indicated that some companies used KPIs as a performance appraisal technique to monitor whether the desired performance was achieved and to identify future training needs. These findings were supported by Bernard (2012) who identified KPIs as a type of performance appraisal that enabled employees to know how effectively they were

doing against key indicators and what further training they might need to improve their performance. Skibniewski and Ghosh (2009) extended that slightly and stated that KPIs were a performance measurement device that enabled managers to evaluate how effectively an employee, group, department or organisation was working. Participants indicated that the use of KPIs involved three processes, KPIs for products, KPIs for sales, and KPIs for services, to measure employee performance in different work contexts. To be effective KPIs had to be based on realistic objectives and be acceptable to employees. This was consistent with David (2008) who claimed that management by objectives was a results oriented process in which employee performance was evaluated through the degree to which predetermined objectives were achieved (as reflected in KPIs). Some companies used a balanced scorecard to identify and track KPIs. The four perspectives in the balanced scorecard were; financial, customer, internal business process and organisational capacity, Kaplan and Norton (2007). However, the identification and measurement of appropriate KPIs for each of the four perspectives in the balanced scorecard for every employee might be difficult, depending on their work duties and responsibilities. A direct linkage between KPIs and goals, between goals and objectives and between objectives and strategies was needed for them to be effective measures of performance, points made by several writers (for example, Skibniewski and Ghosh, 2009; Bauer, 2005; Griffin, 2004; Bean and Gerathy, 2003). Management had first to identify strategic objectives at the business and operational levels, which would then be converted into the organisational and operational goals to be achieved, leading in turn to the identification of realistic objectives for departments, teams and individuals. The objectives to be achieved would determine the KPIs that would be used to measure employee performance as well as the performance of other levels in the organisation. Several writers (for example, Anderson, 2011; Hursman, 2010; Skibniewski and Ghosh, 2009; Bauer, 2005; Griffin, 2004; Bean and Gerathy, 2003) argued that managers valued KPIs as a useful means to manage employee performance, business performance and drive the business forward. KPIs therefore, represented an effective process through which employee performance could be measured, according to the literature, which confirmed participant views. However, factors that influenced the identification of successful KPIs and their effective measurement, particularly in relation to training evaluation, were issues which could usefully be explored in greater detail through future research.

According to Hakala (2008), the rating system and 360 degree monitoring system were popular and well accepted by both managers and employees as ways of evaluating performance. However, other sources (for example, Anderson, 2011; Hursman, 2010;

Skibniewski and Ghosh, 2009; David, 2007) focussed on KPIs as the most effective way to measure performance. KPIs identified the targets to be achieved and performance would be reflected by the achievement (or failure) of an activity (or key indicator) and the degree to which it contributed to the success of an organisation. However, if KPIs were not achieved, it might not mean that the employee had performed poorly, they (or the team) might have worked incredibly hard or under great stress only to find that circumstances beyond their control prevented success being achieved. Consequently, the use of KPIs to measure individual or team performance was not as simple or easy as might be implied by some supporters or literature. In addition, no research had been carried out that identified how performance appraisal could be used in training evaluation, particularly in this research context. In this research, performance appraisal emerged (from both interviews and literature) as a potentially relevant process to assess employee performance in relation to training evaluation. Thus, the research incorporated performance appraisal into the emergent theory and model of training evaluation, as a contribution to new knowledge and it also identified future research opportunities.

### **Category 5 - Monitoring**

The research found that monitoring was frequently used to assess the extent to which employee commitment changed as a result of training. Monitoring was often used to measure employee punctuality, teambuilding, OCB and motivation (as properties of commitment) after attending training. The operational definition of the category monitoring was identified from the range of views expressed by respondents (section 4.6.5). It was not found in the training evaluation literature discussed in chapter 2. Also, no literature was found from the research or other context on how it might be used for training evaluation. However, this research identified that in the specific research context, monitoring (to measure the properties employee punctuality, teambuilding, OCB and motivation) could be a significant process through which to evaluate the behavioural outcomes of training. According to respondents, organisations used two techniques for monitoring levels of trainee commitment, observation and/or a commitment survey.

Participants believed that observation could be used to assess commitment through direct observation and/or indirect observation. They also suggested that it could be significant in the assessment of the four properties of commitment. Respondents explained that it was the duty of line managers to be vigilant in observing what employees did on a regular basis. That involved observing how effectively employees worked and maintained the harmony in group relationships and teamwork, how they participated in group decisions and activities, the level of support and cooperation provided to peers and their general level of

work satisfaction. Although participants recognised that it was sometimes uncomfortable for employees to be observed regularly, it was regarded as an essential management responsibility to understand what was happening in the workplace and therefore potentially useful in evaluating training.

There was no literature that addressed monitoring as a process for training evaluation. However, the data that emerged from participant descriptions about the measurement of motivation and employee commitment was supported by the literature. Several writers (for example, Toure and Fishbach, 2012; Fishbach and Choi, 2012; Shah and Kruglanski, 2000; Locke and Latham, 1990; Brehm and Self, 1989) proposed that employee performance reviews could be used so to identify levels of employee motivation. That literature suggested that different dimensions of motivation needed to be considered. For example, outcome motivation focused on the completion of a goal (Locke and Latham, 1990; Brehm and Self, 1989). Process motivation focused on the process of goal pursuit (Toure and Fishbach, 2012) and the enjoyment of goal pursuit (Fishbach and Choi, 2012; Shah and Kruglanski, 2000). For example, when an employee worked slowly it could mean that their motivation to complete the task was low, which would be reflected in a low level of outcome focused motivation. However, in this research, these four dimensions of motivation were not identified by participants. Participants suggested that job performance and participant involvement was considered when employee motivation was assessed through the monitoring process.

However, most participants suggested that a survey could be a useful technique through which to monitor a trainee's level of commitment. Specifically, they suggested that it provided a potentially useful way to assess levels of teambuilding, punctuality, OCB and motivation as the properties of employee commitment. A line manager could arrange a commitment survey based on a 5 level scoring system to explore various aspects of employee commitment and attitudes to work (appendix G). There was no literature that addressed the use of employee commitment to evaluate training. However, literature was found that focussed on measuring employee commitment for more general purposes. Several writers (for example, Bhatnagar, 2007; Morrison, 2004; Field, 2002; Meyer and Allen, 1997) proposed that a commitment questionnaire, psychological survey, or organisational commitment scale could be used to assess the level of employee commitment to the organisation. Meyer and Allen (1997) developed three measures of commitment, namely affective, normative and continuance. Meyer and Allen explained that an affective commitment scale could be used to assess the level to which employees felt comfortable in their working relationships and with the organisation. The normative

commitment scale was designed to assess feelings of obligation and the continuance commitment scale was designed to assess the employee's desire to stay with the organisation, both of which had obvious potential in training evaluation. Participants explained how OCB could be measured in organisations. Their experience being that the most appropriate way to measure OCB was through a commitment scale. Participant views were supported by several writers (for example, Lee and Allen, 2002; Bettencourt et al., 2001; Organ and Konovsky, 1989) who all developed scales to measure OCB. In addition, participants valued the commitment survey technique as the quickest and easiest way to identify an employee commitment profile.

From respondent data and literature, monitoring had the greatest potential to easily and effectively identify levels of employee commitment through observation and/or a commitment survey. Thus, it could be a meaningful process through which to measure behavioural outcomes and so contribute to the evaluation of training. As indicated above, several sources proposed that the use of a commitment questionnaire, psychological survey or organisational commitment scale were appropriate for the assessment of employee commitment towards the organisation. However, no writer suggested that monitoring could be used to assess employee commitment as a reflection of the effectiveness of training. Thus, the process monitoring, and its associated properties observation and commitment survey could be considered as significant ways through which to evaluate training. However, given the range of options for the commitment questionnaire technique further research would be needed to identify specific possibilities for its use in training evaluation. Consequently, the current research added new knowledge to training evaluation theory and models from the specific research context and also identified future research possibilities.

### **Category 6 - Creativity workshop session**

According to respondents, creativity workshop sessions were used by organisations to assess the extent to which employee creativity increased as a result of training. Organisations usually adopted the technique to measure the extent that employees acted on ideas, did things differently and adopted problem solving to their work after attending training. The operational definition of the category was identified as a process from the range of views expressed by respondents (section 4.6.6). It was not found in the existing training evaluation literature discussed in chapter 2. Equally there was no literature from the research context (or any other) on how a creativity workshop session might be used in training evaluation. The process creativity workshop session contained two techniques, individual creativity workshop and group creativity workshop. The research identified that in the specific research context creativity workshop session was a technique used to assess

employee creativity to evaluate the performance outcomes of a training programme.

A creativity workshop session could be designed to take place either inside or outside of the company about three months after the training. Participants suggested that a creativity workshop session would only be relevant for training evaluation when employees attended creativity training, situational forecast training, project planning training, problem solving training or innovation and creativity training. Participant views were similar to those found in the employee creativity literature (for example, Al-Emadi and Maruardt, 2007; Ahmed and Baker, 2003; Bartlett, 2001). That literature explored how to understand employee creativity at work through brainstorming workshops, creativity workshops and/or problem solving workshops. Ensor et al. (2006) focused on the impact of training on creativity and explained how to understand if employees were creative in the workplace and at the same time consider the macro and micro organisational factors which effected creativity. In that source, the main thrust of the argument in relation to the current research was broadly the same as the sources already discussed.

Individual creativity workshops could potentially be a useful tool to measure the degree to which employees acted on ideas, did things differently and adopted problem solving techniques after attending training. Similarly, group creativity workshop sessions could also be used for measuring the degree to which employee creativity increased in a team context following training. Participants explained that during a group creativity workshop session, management could adopt brainstorming to encourage employees to deal with a specific task or solve a problem in novel or different ways. Five or six people in a group may be involved in a group brainstorming workshop. They would be assigned specific problem to resolve or a project design planning problem. Such sessions could be arranged every three months to both encourage creativity among employees and/or to monitor changes in creativity over time.

No research or literature was found which suggested that a creativity workshop session could be used to measure the performance outcomes of a training programme. Therefore, based on respondent views alone, this result was taken forward and creativity workshop session was included in the emergent theory and model. Thus, the result of this research added new knowledge to training programme evaluation theory and models, specifically within the research context and it also identified opportunities for future research.

### Conclusions about Research Question 3

The research identified that the textile industry frequently measured the value of training through category 1 - feedback to assess trainee reaction, category 2 - test to assess learning,



category 3 - productivity ratio to assess employee productivity and category 4 - performance appraisal to assess employee performance. The research also found that the processes feedback and test were most frequently used in the textile industry because of their simplicity and ease of use. The resources to measure these two factors were readily available in most companies and the results could be determined quickly (sections 4.6.1 and 4.6.2).

Categories 3 and 4 were found to be less frequently assessed as part of training evaluation by organisations in the research context. However, even though they were only occasionally used, respondents thought they offered effective ways to assess employee productivity and performance respectively within the research context. Although these two levels were more complex to determine, more resource demanding and more time consuming to evaluate than the feedback and test, they were thought by respondents to be more significant in assessing the real value of training (sections 4.6.3 and 4.6.4). Hence, it was concluded that participants perceived that if less complex and simpler ways could be found to assess them, they would be significant for the evaluation of training within the research context. However, their use may not be applicable to all organisations and situations, factors such as company size, profitability and resource availability could influence what might be possible or practical. Existing models and literature did not consider productivity ratio or performance appraisal as ways to assess the value of training.

Categories 5 and 6 were found to be even less frequently assessed as part of training evaluation by organisations in the research context. However, they were thought by respondents to offer effective techniques to assess employee commitment and employee creativity within the research context. Monitoring and creative workshop sessions were found to be of concern to both employees and organisations as the basis for the provision of continuous training in order to create a versatile workforce (sections 4.6.5 and 4.6.6). Hence, it was concluded that participants perceived that to understand the behaviour of employees it was useful to assess commitment through monitoring and to understand the performance of employees it was useful to assess creativity through a creative workshop session. Therefore, they could be significant for the evaluation of training within the research context. However, their use may not be applicable to all organisations or situations as factors such as company size, profitability and resource availability could influence what might be possible or practical. Existing models and literature did not consider monitoring or creativity workshop session as ways to assess the value of training.

In-depth exploration of the phenomenon from the respondent's perspective provided a clear

understanding of the phenomenon. Analysis of the findings confirmed that six processes namely feedback, test, productivity ratio, performance appraisal, monitoring and creativity workshop session were significant in the assessment of the six training programme contexts of reaction, learning, employee productivity, employee performance, employee commitment and employee creativity. In doing so, the research contributed new perspectives to the existing body of knowledge about the evaluation of training and added additional new categories to the existing training evaluation models. It also identified a range of further research opportunities in relation to the processes that would be of most relevance and value (and under what circumstances) in the determination of effective training in the current research context and beyond.

**5.2.4 Research question 4:** What factors influenced the evaluation of training programme outcomes and processes? (relevant to objectives 4 and 5, section 1.7).

This research question required the exploration of respondent views about factors that influenced the evaluation of training programme outcomes and processes within the textile industry in Bangladesh. The variable identified in chapter 4 and reviewed below focussed on the intervening condition that demonstrated that research question 4 had been fully answered.

The responses obtained during interviews (section 4.5) identified one intervening condition that influenced the context and acted to either facilitate or constrain the processes adopted to evaluate training. The intervening condition category was: category 1 - contextual factors and its associated properties individual differences, work climate and organisational culture. The operational definition created for this category was discussed in section 4.5 and its subsections.

#### **Category 1: Contextual factors**

The research found that the contextual factors were the intervening condition that influenced the training evaluation contexts and subsequently, facilitated or constrained the training evaluation processes previously identified. The operational definition of the category contextual factors was identified from a range of respondent views (section 4.5.1). The use of it in relation to the evaluation of training was not found in the training evaluation literature or the associated models discussed in chapter 2.

The properties of the contextual factors identified from the research were individual differences, work climate and organisational culture (section 4.5.1). A wide range of individual differences, work climate and organisational culture factors were identified that

could subsequently produce a significant impact on training transfer outcomes. These factors were ignored in the existing training evaluation literature. Respondent views were supported by several writers (for example, Grossman and Salas, 2011; Blume et al., 2010; Hofsted, 2001; Salas and Cannon-Bowers, 2001; Ford and Weissbein, 1997; Cannon-Bowers et al., 1995) who collectively argued that several contextual factors existed including individual characteristics, environmental factors, organisational culture, the nature of interpersonal support for skill acquisition or behaviour change in the workplace, the existence of a learning organisation and factors associated with training design and delivery. The writers generally argued that the indicated contextual factors influenced organisational behaviour in ways that impacted on learning outcomes and the subsequent implementation of acquired KSAs to normal work activities.

This research found that the individual differences of employee self-efficacy, motivation, attitude towards career, attitude towards work and cognitive ability all impacted on the achievement of successful learning and performance outcomes. Plus, they either facilitated or constrained the training evaluation process. Views supported by the literature (for example, Grossman and Salas, 2011; Blume et al., 2010; Salas and Cannon-Bowers, 2001). The individual differences of self-efficacy and motivation were reflected in an individual's personal confidence and ability to act. For example, a person with high self-efficacy, high levels of motivation, positive attitudes towards their career and work and who wanted to increase their KSAs would feel confident in seeking training to achieve those intentions. Such individuals would also be more likely to have the ability to achieve success in the acquisition of the desired outcomes compared to a person with low self-efficacy, motivation etc, views supported by Mathieu (2014) and Chiaburu and Lindsay (2008). The research also found that individuals who had high self-efficacy, high levels of motivation, positive attitudes towards career and work, along with the cognitive ability to take advantage of training opportunities were more likely to exert effort in providing feedback that reflected their high demands. Such individuals would also be more likely to demonstrate their achievement through test processes which would lead them to engage effectively with the training evaluation process, making it successful. Whereas, those with low self-efficacy etc would be less likely to be motivated to provide comprehensive feedback or demonstrate test based achievements, making it less successful. However, if trainee learning and performance outcomes increased after training, it didn't automatically imply that the training was successful as, for example, the trainee might recognise that the only way to keep their job was to conform to the requirements. The individual difference factors and other factors identified above needed to be taken into account during training

programme design and subsequently during the delivery and evaluation of training programme outcomes. Self-efficacy, attitudes toward work and motivation to learn should thus be considered essential as part of effective and successful training. As such, they would justify training investment, facilitate learning and ensure that KSAs were transferred to the work setting. Views supported by the training transfer literature of Blume et al. (2010) who suggested that individual differences including self-efficacy, attitudes toward work and motivation to learn all had significant effects on training transfer effectiveness.

The research also found that work climate had the potential to impact on the training evaluation context of learning, behaviour and performance. Respondents suggested that employees only used to a limited extent the KSAs acquired from training if the workplace was unsupportive. Views also argued by Blume et al. (2010) and Rouiller and Goldstein (1993) who said that the workplace itself could be a major force in hindering or enhancing training transfer outcomes. The research identified several work climate factors including, support from managers, the opportunity to practice and apply what had been learned that influenced the extent to which employee learning contributed to successful learning transfer. All of which impacted on company functioning and performance. Views consistent with Tannenbaum et al. (2012) and Blume et al. (2010) who identified transfer climate and the nature of interpersonal support in the workplace as necessary for skill acquisition or behaviour change to occur (section 4.5.1). The research found that managers and supervisors played a significant role in the achievement of successful training transfer. Assisting trainees to identify suitable situations in which to apply new KSAs and guiding them in how to apply them required positive encouragement and support from managers and supervisors. Because of their direct and regular involvement with trainees the immediate supervisor was critical in being able to directly influence effective training transfer through the creation of a positive transfer climate and by facilitating trainee motivation to apply what they had learned (Blume et al., 2010; Cromwell and Kolb, 2004; Elangovan and Karakowsky, 1999; Baldwin and Ford, 1988).

The research found that organisational culture was an intervening variable that also influenced the training evaluation context and processes. Several organisational culture elements that included goals and values, policies and norms, stakeholder involvement, learning culture, structure, leadership style and communication networks had a potential bearing upon training programme outcomes and the evaluation process, according to respondents. The views of respondents confirmed the findings of previous research (for example, Guerci et al., 2015; Blume et al., 2010; Bates et al., 2010; Salas and Cannon-Bowers, 2001; Ford and Weissbein, 1997; Cannon-Bowers et al., 1995; Tracy et al., 1995;

Ford et al., 1992) which suggested that culture was a strong predictor for the effectiveness of training outcomes, specifically the impact on learning and employee performance. The research was also consistent with Wan Lee et al. (2012), White et al. (2010) and Hofstede (2001) who argued that culture was an important as a major influence on society, organisations and the individuals who live and work in that context.

According to several writers (for example, Hofstede, 2001), culture was a fundamental part of society and deeply embedded in organisational systems. Consequently, culture impacted on many aspects of their functioning. Among the business functions influenced by culture were the processes used within an organisation, business strategy development, planning processes and the objectives sought (including international goals). In addition, many other aspects of interpersonal and group interaction within a business were also impacted by culture. These included leadership style, communication, negotiation policies and practices, training and development provision. Hofstede (2001) suggested that the dimensions of a cultural context were defined by individualism, power distance, masculinity and uncertainty avoidance. All of which had a significant effect on the people in each context in various ways that included the degree of individualism (as opposed to collectivism) evident in work processes; the values held by individuals and groups; the norms of behaviour; the dominant views about learning and performance. Respondents believed that culture, as reflected in the values held and leadership style of an organisation had a significant effect on the attitudes of people as well as their behaviour, approach to learning and ultimately the overall performance of a workplace. These findings were consistent with the work of Alotaibi and Mokhtar (2015), Wan Lee et al. (2012) and Hofstede (2001).

Participants also suggested that the existence of a learning culture and organisational stakeholders being involved in the training evaluation process resulted in a positive impact on training outcomes and its evaluation. Views also supported by Guerci et al. (2015). In an organisation where power distance was low and those in authority distributed some of their power and responsibility to lower level groups, employees were more likely to believe that they should give their best for the company (Guerci et al., 2015). They argued that employees in such organisations were likely to be more effective and their performance higher. Respondents also thought that the person responsible for training evaluation should consider these issues when they designed and arranged training and subsequently evaluated it. Thus, both respondents and relevant literature suggested that companies should consider organisational culture and its component factors as important intermediate factors that potentially influenced the training evaluation context and process. Findings clearly demonstrated that culture as a major feature associated with a broad range

of organisational functioning was justified as a factor to be included in training evaluation.

#### Conclusions about Research Question 4

The intervening conditions for the evaluation of training were well understood by most participants, as was their potential to facilitate or constrain the training evaluation context and/or processes within the textile industry in Bangladesh. They also recognised that such conditions needed to be considered carefully when the evaluation of training and its outcomes were considered. The research found that the intermediate variables individual differences, work climate and organisational culture were the most appropriate ones to be considered as they had an impact on the achievement of successful training, its transfer to work activities and business level outcomes.

Though trainee behaviour, learning and performance outcomes changed after training, it did not automatically imply that the training programme was totally successful. That was why the intervening conditions of individual difference, work climate and organisational culture that impacted on outcomes as explained by respondents also needed to be considered carefully during training design, delivery and evaluation. However, respondents also recognised that the intervening factors were more complex to determine because they were more resource and time demanding to identify and assess. Also, respondents recognised that these reasons may not apply equally to all organisations and situations, factors such as company size, profitability, organisational politics and resource availability would influence what might be possible and practical. Existing models and literature did not consider these issues when assessing the value of training.

The findings from respondent and company data were confirmed by identifying, critically evaluating and integrating them with relevant literature. In doing so, the work contributed new perspectives to existing knowledge about training evaluation and added a new category to the existing models. It also identified a range of further research opportunities in relation to which intervening variables facilitated or constrained the determination of effective training and how to measure that impact in the current research context and beyond.

**5.2.5 Research question 5:** Based on the answers to RQs 1, 2, 3 and 4, what context specific theory and practical model provided the most appropriate means of measuring the effectiveness and value of training within the research context? (relevant to objective 6, section 1.7).

In accordance with grounded theory, categories were progressively and inductively derived from the research data (chapter 4). The findings were identified by critically evaluating

relevant literature and integrating it with respondent views and documentary evidence in order to address the research questions (sections 5.2.1, 5.2.2, 5.2.3 and 5.2.4). That demonstrated that all the findings were linked together in a web of meaning based on both context and literature. That in turn allowed the development of a context specific theory and model for training evaluation for the textile industry in Bangladesh (see the following discussion and 5.1).

Three types of category emerged: conditions (causal, context and intervening), action/interactions strategies/ processes and consequences/outcomes (sections 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.2.1, 5.2.2, 5.2.3 and 5.2.4). The research established links between categories which described the phenomenon under study. Selective coding used the reflective coding matrix and coding paradigm model (figure 3.7) to link categories in a web of relationships which described the evaluation of training programme outcomes in terms of the causal, contextual and intervening conditions, action/interaction strategies and their consequences/outcomes. The findings identified the context specific approach to training programme evaluation based on two causal conditions, six contexts, one intervening condition, six processes and four outcomes (figure 5.1).

The core category, which represented the central phenomenon, was found from four outcome categories, which were identified as the consequences of training (section 4.8). These emerged from participant responses and were immediate outcomes of a training programme, direct outcomes of a training programme, behavioural outcomes of a training programme and performance outcomes of a training programme. The four outcomes emerged as a mode of understanding the consequences of action and interaction which needed to be taken into account in the identification and development of the core category (section 4.8).

Training programme evaluation emerged as the core category because it related to all other categories in relation to the context of training evaluation (section 4.8). The core category represented the storyline of the research, a key aspect of theory development (figure 5.1). The research created a new substantive theory underpinning training evaluation, based on and applicable to, the specific research context. That theory was then used to create a model that could be used as the basis of practitioner training programme evaluation, as well as the identification of areas for further research (figures 3.7 and 5.1).

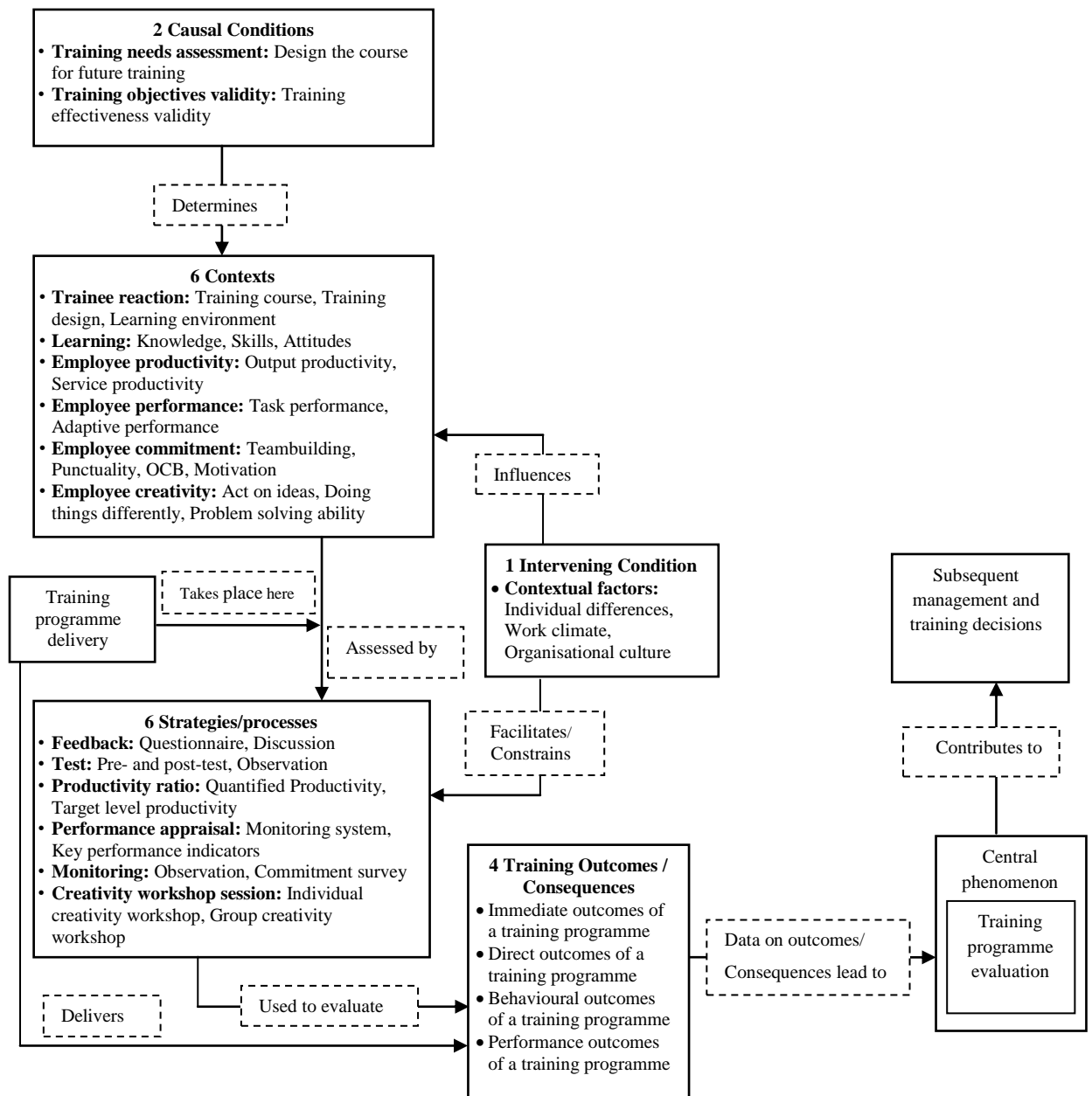


Figure 5.1: A grounded theory conceptual model for the evaluation of training programme outcomes

### 5.2.5.1: The grounded theory conceptual model: An explanation of the diagrammatic representation in figure 5.1

Figure 5.1 demonstrates the links between all the identified categories as a set of relationships which explained training programme evaluation (the core category) in terms of the causal conditions, contexts, intervening conditions, strategies/processes and consequences /outcomes. Causal conditions represented events and incidents that led to the occurrence or development of a training programme and its outcomes. Contexts represented the conditions in which strategies were taken to assess training programme outcomes. Intervening conditions acted to either facilitate or constrain the processes taken within a specific context. They represented broad and general conditions pertaining to the context of the



training programme outcomes. Strategies/processes were taken to manage training programme outcomes under a specific set of conditions that had certain consequences. Outcomes/consequences were the outcomes or results of the action and interaction strategies/processes. All the conditions were linked together in a web of meaning based on both context-based data and literature. That in turn allowed the development of the context specific theory and model for training programme evaluation for the textile industry in Bangladesh (figure 5.1). The boxes in figure 5.1 are linked by arrows that reflect the flow, or sequence of cause and effect relationships, between them in reaching the ultimate conclusion, training programme evaluation. Thus, training programme evaluation is a systematic process of assessing the effectiveness, value and outcomes of training programmes based on the objectives set for it in terms of the immediate outcomes, direct outcomes, behavioural outcomes and performance outcomes. The cycle then begins again with the results of the evaluation influencing what should happen in relation to the future design and delivery of training programmes.

#### **5.2.5.1.1 Training evaluation causal conditions**

The causal conditions indicated in figure 5.1 represented the events that determined the training evaluation context and led to the occurrence of training evaluation outcomes within the research context. Two categories of causal conditions, category 1 - training needs assessment and category 2 - training objectives validity, were identified from the data for training programme evaluation (section 4.4). Each of these categories contained one or more properties that provided meaning and richness to them.

Training needs assessment was identified as the first category of training evaluation causal condition from the field data presented in section 4.4.1. It represented the causal condition that determined the training evaluation contexts of trainee reactions and learning, both used for the assessment of a training programme. Its property was design the course for future training, which reflected the need for organisations to plan future training partly based on an understanding of the success of previous training as reflected in the effective and comprehensive evaluation of it.

Training objectives validity was identified as the second category of training evaluation causal condition and was originally identified from the field data in section 4.4.2. It represented the causal condition that determined the training evaluation context of training effectiveness validity (learning outcome validity, behavioural and performance outcomes) which continued to influence and lead to the occurrence of the evaluation of training. Its property was training effectiveness validity which reflected the need for, or led to the occurrence of, the evaluation of

training in terms of learning outcomes validity, behavioural and performance outcomes.

#### **5.2.5.1.2 Training evaluation intervening condition**

The intervening condition indicated in figure 5.1 influenced the training evaluation contexts and either facilitated or constrained the training evaluation processes (section 5.2.4). Within the research context, intervening condition was identified as the single training evaluation contextual factor. That finding emerged following data analysis (sections 4.5). The category contained a number of properties that provided meaning and richness to it. This category comprised the properties individual differences, work climate and organisational culture, all of which influenced the training evaluation contexts and either facilitated or constrained the evaluation processes.

Individual differences were identified as the first property of the training evaluation intervening condition from the field data presented in section 4.5.1. It represented the contextual factors of trainee reactions, learning, employee productivity, employee performance, employee commitment and creativity that influenced the training evaluation contexts and the training evaluation processes. Therefore, suggesting that the existence of a range of individual characteristics had the potential to impact on training outcomes.

Work climate was identified as the second property of the training evaluation intervening condition and was originally identified from the analysis of data in section 4.5.1. The research found that a wide range of work climate factors had an impact on successful learning outcomes. They included successful training transfer and improved individual and team performance. It represented an aspect of the intervening condition that influenced the training evaluation contexts that also facilitated or constrained the training evaluation processes.

Organisational culture was identified as the third property of the training evaluation intervening condition from the analysis of data presented in section 4.5.1. It represented a range of organisational cultural elements that had the potential to impact on training outcomes. Therefore, it was also one of the contextual factors that influenced the training evaluation contexts and the training evaluation processes.

Each of these properties had the capability to produce significant influences on learning outcomes and therefore required better understanding and incorporation into training design, delivery and evaluation if training was to be successful in meeting its objectives and potential.

#### **5.2.5.1.3 Training evaluation contexts**

The contexts indicated in figure 5.1 represented a specific set of conditions that pertained to the evaluation of training programme outcomes. They were the specific conditions in which

processes were taken to manage the specific phenomenon, which in this research was training programme evaluation. The analysis of interview data and literature suggested that six contexts for training evaluation existed. The six categories were: category A - trainee reaction, category B - learning, category C - employee productivity, category D - employee performance, category E - employee commitment and category F - employee creativity (sections 4.3, 5.2.1 and 5.2.2). Each category contained several properties that provided meaning and richness to them, indicated in figure 5.1.

Trainee reaction represented the context that sought to capture feedback about trainee reactions to, and satisfaction with, a particular training event (sections 4.3.1 and 5.2.1). Its properties were training course content, training course design and the learning environment all of which reflected elements of a training intervention that reflected the extent to which trainees were satisfied with it. The feedback received could help to assess the degree of success achieved by a training programme and contribute to the design and delivery of future training.

Learning was also identified as a category of training evaluation from the field data (sections 4.3.2 and 5.2.1). It contained the process test which assessed trainee KSAs both before and after training. Its purpose being to reflect the degree to which KSAs increased as a result of the training. The results obtained could help to assess the degree of success of a particular training programme in the achievement of its direct outcome objectives and contribute to the design and delivery of future training.

Employee productivity was also identified from the field data as a category of training evaluation (sections 4.3.3 and 5.2.1). It contained the process productivity ratio to assess the output productivity and service productivity of trainees. The purpose being to reflect the extent to which trainee output productivity and service productivity improved as the result of the training received. The results obtained could help to assess the degree of success achieved by a training programme in the application of the direct outcomes intended for it. Thereafter the results could be used to contribute to the design and delivery of future training.

Employee performance was also identified as a category of training evaluation from the field data (sections 4.3.4 and 5.2.1). It contained the process performance appraisal used to assess the properties of task performance and adaptive performance. Its purpose being to reflect the degree to which employee performance increased after training based on the application of what was acquired to normal work activities. The results could also help to assess the degree of success of the training programme and contribute to the design and

delivery of future training.

Employee commitment was also identified as a category of training evaluation from the field data (sections 4.3.5 and 5.2.2). It contained the process monitoring to assess team building, punctuality, OCB and motivation in order to evaluate training programme outcomes. It represented the means to assess the behavioural outcomes of training in terms of output productivity and service productivity. The results of which were demonstrated through the research to reflect the extent to which trainee team building, punctuality, OCB and motivation increased following the training received. The results could also help to assess the degree of success of the training programme and contribute to the design and delivery of future training.

Employee creativity was also identified as a category of training evaluation from the field data (sections 4.3.6 and 5.2.2). It contained the process creativity workshop session which could be used to encourage and assess the degree to which the properties act on ideas, do things differently and apply problem solving abilities improved following training. These properties could be used to help understand the degree of success achieved by a training course in achieving its intended outcomes. In addition, the results could contribute to the design and delivery of future training.

#### **5.2.5.1.4 Training evaluation strategies/processes**

The training evaluation strategies/processes indicated in figure 5.1 represented a set of actions/interactions through which to assess the training evaluation context under a specific set of conditions and specific outcomes or consequences. The analysis of interview data and literature suggested six contexts for the evaluation of training programmes. The six categories of evaluation strategies/processes were category 1 - feedback, category 2 - test, category 3 - productivity ratio, category 4 - performance appraisal, category 5 - monitoring, category 6 - creativity workshop session (sections 4.6 and 5.2.3). These contained a number of properties that provided meaning and richness to them, reflected in figure 5.1.

Feedback was identified as the first category of training evaluation strategy/process from the field data (sections 4.6.1 and 5.2.3). It assessed the immediate reactions of trainees at the conclusion of the training. Its properties were questionnaire and discussion which represented techniques that could identify the extent to which trainees were satisfied with the particular training intervention.

Test was identified as the second category of training evaluation strategy/process from the field data (sections 4.6.2 and 5.2.3). It was used to assess trainee KSAs as a direct

outcomes of training. Its properties were pre- and post-test and observation which reflected different ways to assess the degree to which trainee learning increased after training as a direct outcomes of a training programme.

Productivity ratio was identified as the third category of training evaluation strategy/process from the field data (sections 4.6.3 and 5.2.3). It assessed employee productivity (output productivity and service productivity) which reflected the performance outcomes of a training programme. Its properties were quantified productivity and target level productivity ratio, which reflected the extent to which trainee employee productivity improved as the result of the training received.

Performance appraisal was identified as the fourth category of training evaluation strategy/process from the field data (sections 4.6.4 and 5.2.3). It assessed employee performance (task performance and adaptive performance) and as such reflected the performance outcomes of a training programme. Its properties were monitoring system and key performance indicators which reflected the degree to which trainee performance increased after training.

Monitoring was identified as the fifth category of training evaluation strategy/process from the field data (sections 4.6.5 and 5.2.3). It assessed employee commitment (teambuilding, punctuality, motivation and OCB) which reflected the behavioural outcomes of a training programme. Its properties were observation and administration of a commitment survey which reflected the extent that trainee commitment increased as the result of training.

Creativity workshop session was identified as the sixth category of training evaluation strategy/process from the field data (sections 4.6.6 and 5.2.3). It assessed employee creativity (act on ideas, doing things differently, problem solving ability) which reflected the performance outcomes of a training programme. Its properties were individual creativity workshop and group creativity workshop which reflected the degree to which trainee creativity increased after attended training.

#### **5.2.5.1.5 Training evaluation outcomes/consequences**

The training evaluation outcomes/consequences indicated in figure 5.1 represented the outcomes or results of the strategies/processes. In determining the training evaluation outcomes/consequences, four categories were found (section 4.8, tables 4.67 and 4.70 and figure 5.1). The four categories were the immediate outcomes of a training programme, direct outcomes of a training programme, behavioural outcomes of a training programme and performance outcomes of a training programme. These categories reflected the headings under which the various results of the evaluation of training would be grouped. The

processes through which these were assessed were all discussed in sections 4.8, 5.2.3 and subsection 5.2.5.1.4. The outcomes/consequences of a training evaluation were all found to be connected to the other categories during the selective coding process.

The process feedback assessed the extent to which trainees were satisfied with the training course, training design and learning environment. These reflected an assessment of the outcomes/consequences of training immediately after a training session. As such it reflected immediate outcomes of a training programme. The process test assessed the extent to which trainee learning improved in terms of acquired KSAs and it reflected a direct outcome of a training programme. The process employee productivity ratio assessed the extent to which trainee productivity increased as a result of training and it reflected performance outcomes of a training programme. The process performance appraisal assessed the extent to which trainee performance increased as a result of training and it reflected performance outcomes of a training programme. The process monitoring assessed the extent to which trainee commitment developed following training and it reflected the behavioural outcomes of a training programme. Finally, the process employee creativity workshop session assessed the extent to which trainee creativity increased following training and it reflected performance outcomes of a training programme. It is apparent from the research that for each specific context an appropriate training evaluation strategy/process could be designed and adopted to appropriately measure the actual training programme outcomes/consequences achieved. Such an approach could only benefit the organisation and employees through improved operational effectiveness along with future training design and delivery.

**5.2.6 Research question 6:** To what extent did the answer to research question 5, provide a development of the existing training evaluation models, thereby contributing to new knowledge, company policy and practice in the context of the textile industry in Bangladesh? (relevant to objective 7, section 1.7).

This research question addressed two important issues. Firstly, the justification of the development of a new theory in terms of a discussion/comparison of the new model with the existing training evaluation models (discussed in subsection 5.2.6.1) and secondly, as a contribution to new knowledge (discussed in subsection 5.2.6.2).

#### **5.2.6.1 A comparison of the research based new model with existing training evaluation models**

The preceding sections of this chapter addressed the research findings by identifying and critically evaluating the field research data along with relevant literature where appropriate.

At appropriate points in the foregoing analysis the contributions to new knowledge were indicated along with the opportunities for further research. That discussion provided a solid justification for the new substantive theory explained above by comparing the research findings with the training evaluation models introduced in chapter 2. The most widely known and used model of training evaluation was the hierarchical model developed by Kirkpatrick in 1959 (Sachdeva, 2014; Schmidt et al., 2009; Elliott et al., 2009). Several writers (for example, Philips and Philips, 2016; Guskey, 2002; Kaufman, 1995; Hamblin, 1974) modified Kirkpatrick's model, but all had their origins in it (sections 2.4).

Kirkpatrick's model contained four levels of evaluation: reaction, learning, behaviour and results. Kaufman's (1995) model added an additional level making five in total: resources and processes, acquisition, applications, organisational payoffs and societal contributions. Hamblin's (1974) model also modified Kirkpatrick's original and suggested five levels. The first four levels of Hamblin's model were identical to Kirkpatrick's but the fourth was split into two levels, organisation and ultimate value. Guskey's (2002) model also extended Kirkpatrick's model by adding a fifth level: participant reaction, learning, organisation support and learning purpose, participant use of new knowledge and skills, learning outcomes. Another adaptation of Kirkpatrick's framework was Philips and Philips (2016) who added return on investment (ROI) as a fifth level and suggested that it offered the most valuable information but was the most difficult to assess. Richard (2011) also proposed five levels for training evaluation, but which were slightly different to all of the other models. His model proposed a pre-learning stage, the trigger (need) for learning, the learning event, application of learning and the impact of learning.

The findings of this research were fully explored in chapter 4 and the previous sections of this chapter. In the process similarities and differences with the other models were identified, which led to the creation of the model introduced as figure 5.1. What follows is a brief discussion of the contexts and processes proposed by this research in comparison with Kirkpatrick's and other models. That discussion provides the justification for the development that the new model offered along with the identification of the advantages over existing models in relation to the specific research context. The proposed model is different to all existing models in that this research brings together the levels of assessment identified as the contexts and strategies/processes as the 4 categories of training evaluation outcomes/consequences. Therefore the final levels identified by this research cannot be directly compared with those in the existing training evaluation models. That reflects the categorisation in this research of training evaluation outcomes/consequences as the most effective aid to subsequent management understanding and decision making rather than the

assessment levels themselves. That is demonstrated clearly by the flow of connections in figure 5.1. It also further contributes to the new knowledge created by this research. Consequently, what follows will compare the specific training evaluation contexts and strategies/processes identified in the proposed model with the assessment levels in the existing models.

**Trainee reaction:** Reaction represented the first assessment level in the proposed model and would be used to measure trainee opinions at the end of a training programme. It therefore provided an indication of whether or not the outcomes intended for it were likely to be achieved (section 5.2.1 and figure 5.1). This category was similar, but not identical to, the reaction level described in the literature relevant to all the models discussed earlier. This research identified training design as an additional factor in the assessment of trainee reactions because it influenced the effectiveness of the training delivered. A positive relationship between training design and learning was claimed in the work of several writers and the data collected from respondents. Consequently, adding the measurement of trainee reactions to the design of training produced a more complete assessment of the effectiveness of it. Also, the research concluded more clearly than implied by existing models that a questionnaire was the only method needed for response collection in most situations. Discussion could be used as an alternative depending on situational circumstances such as cost and resource implication. The research therefore extended the conventional scope of reaction in the substantive theory and resulting model.

**Learning:** Learning represented the second assessment level in the proposed model and measured the degree to which trainee KSAs increased at the end of a training programme. It therefore provided an indication of whether or not the outcomes intended for it were likely to be achieved (section 5.2.1 and figure 5.1). This category was similar, but not identical to, the learning level described in the literature relevant to the existing models discussed earlier. This research identified self-efficacy and self-directed as additional factors to consider in assessing attitudes to work. They were found by the research to have a significant impact on the direct outcomes of training as they influenced the effectiveness of training as delivered, thereby adding to the existing literature. Positive relationships between attitudes and learning outcomes were claimed in the work of several writers and the data collected from respondents. Consequently, adding the measurement of attitudes provided a more complete assessment of the effectiveness of training. The research also identified that the contextual factors of individual differences, learning transfer climate and organisational culture influenced the use of learning at work. These features were not included in the existing models. Therefore, this research extended the scope of the



established view of learning because it proposed that positive conditions surrounding training encouraged learning among participants which then made training transfer and work behaviour changes more likely.

In addition, the research concluded that the process test should be extended to incorporate the measurement of trainee attitudes towards work in addition to the usual assessment of KSAs. This research also identified presentation as an additional test option in assessing knowledge as a direct outcome of training. An approach not included in the existing training evaluation models. Equally, the existing models did not include indirect observation or attitude survey as ways to assess KSAs as part of training evaluation. This research proposed several techniques that could be used, but not necessary all of them every time. The research found that training objectives should determine both the choice of training, which along with the context, would determine the evaluation methods adopted. The research therefore extended the existing scope of learning in the substantive theory and resultant model.

**Employee productivity:** Employee productivity represented the third assessment level in the proposed model and measured whether it increased following training. Therefore, identifying the degree to which the outcomes intended for it had been achieved (section 5.2.1 and figure 5.1). There was no literature that addressed employee output productivity or service productivity as ways to evaluate the value of training. Kirkpatrick (1994) did however provide a slightly different approach to employee productivity, he introduced level - 4 results which identified the tangible results from training which included: improved quality, efficiency, increased sales, improved productivity, reduced turnover, decreased costs and higher profit. He introduced productivity as subcategory of that level but did not explain how or when it should be measured. The findings of the current research were based on the data collected from respondents and a positive relationship between employee output productivity, service productivity and performance claimed by several writers on employee productivity. Consequently, adding the measurement of these components produced a more complete assessment of the effectiveness of training to the theory and model developed through this research. The research also identified that the contextual factors individual differences, learning transfer climate and organisational culture (discussed in sections 4.5 and 5.2.4) also influenced employee productivity at work.

No existing literature proposed quantified productivity ratio or target level productivity ratio as processes through which to evaluate trainee productivity, both identified in the

current research. The research also suggested that only quantified productivity would be necessary for the measurement of employee productivity, with target level productivity being reserved as an alternative that might be preferred depending on circumstances. For example, the purpose of training evaluation, evaluator preferences, management requirements and cultural context pressure.

**Employee performance:** Employee performance represented the fourth assessment level in the proposed model and measured the degree to which it increased following training, meaning that the outcomes intended for it were more likely to be achieved (section 5.2.1 and figure 5.1). This category was not found in any of the training evaluation literature reviewed in chapter 2. Holton (1996) suggested the use of individual performance to assess the effectiveness of training, but did not identify the categories of task performance, adaptive performance or their associated dimensions as factors for that assessment. The current research identified that these categories impacted on the performance outcomes of training, therefore extending the existing literature in a different context. Although not found in the training evaluation literature, a positive relationship between employee adaptive performance, task performance and performance was identified in some employee performance literature as well as the data collected from respondents. Consequently, adding the measurement of employee adaptive performance and task performance to training evaluation produced a more complete assessment of its effectiveness. It also identified how the contextual factors of individual differences, learning transfer climate and organisational culture influenced employee performance at work.

Performance appraisal was identified by the research as useful for the assessment of employee performance through two techniques: monitoring system and KPIs (sections 4.6.4 and 5.2.3). No writer in training evaluation included these in the models that they proposed. However, the research identified that it was not necessary to use both techniques. For example, when trainee communication proficiency, leadership proficiency, management proficiency, managing crisis situations, managing work stress or interpersonal adaptability were to be assessed the technique monitoring system would be most appropriate. On the other hand, KPIs might be most relevant for the measurement of task performance.

**Employee commitment:** Employee commitment represented the fifth assessment level in the proposed model and measured whether it increased following training, meaning that the outcomes intended for it were more likely to be achieved (section 5.2.2 and figure 5.1). The category was not found in the existing training evaluation literature either as a general

theme or through its components of, punctuality, teambuilding, motivation and OCB, which were identified in the current research. The research found that all of these had an impact on the performance outcomes of training. The category employee commitment proposed in this research therefore represented an addition to the existing training evaluation literature and the existing models of training evaluation as applied to the research context. A positive relationship between employee punctuality, teambuilding, motivation and OCB and behavioural performance outcomes was found in the work of several writers from the employee commitment field and also the data collected from respondents in this research. Consequently, adding the assessment of employee commitment to the theory and model developed through the research produced a more complete assessment of the effectiveness of training and also identified how the contextual factors of individual differences, learning transfer climate and organisational culture influenced employee commitment at work.

This research proposed that monitoring could be used as a process to assess the extent to which a trainee was committed to their job or company. Monitoring could be based on either of two techniques: observation or a commitment survey (sections 4.6.5 and 5.2.3). However, the research proposed that observation was the most appropriate, with commitment survey serving as an alternative that might be preferred for reasons that could include personal preference, training objectives or company policy.

**Employee creativity:** Employee creativity represented the sixth assessment level in the proposed model and measured whether it increased following training, meaning that the outcomes intended for it were more likely to be achieved (section 5.2.2 and figure 5.1). The category and its properties were not found in the existing training evaluation literature. The category was found to be particularly appropriate for certain types of training such as creativity training, creativity workshop, leadership training, problem solving ability training, brainstorming workshop and managerial training. All of which were designed to enhance levels of creativity as part of their objectives, therefore contributing to the achievement of key organisational objectives. A positive relationship between acting on ideas, doing things differently, displaying creative problem solving and employee performance was identified in the work of several writers on employee commitment in addition to the data collected from respondents during the current research. Consequently, adding the measurement of acting on ideas, doing things differently and displaying creative problem solving to the assessment of the performance outcomes of training produced a more complete assessment of its effectiveness and identified the extent to which the contextual factors of individual differences, learning transfer climate and organisational

culture influenced employee creativity at work. This research proposed that positive conditions surrounding training encouraged employee creativity among participants, which then made work performance change more likely.

The process creativity workshop session identified through the research offered two techniques for the assessment of trainee creativity following training: individual creativity workshop or group creativity workshop (sections 4.6.6 and 5.2.3). However, the research suggested that it was not necessary to use both techniques every time. Factors that might be considered when deciding which to use included, organisational culture and facilities, management preference, availability or suitability of a particular technique in the context, the purpose of evaluation and evaluator preference. Because employee creativity and its properties as identified in the current research was an addition to the existing evaluation models. It extended existing training evaluation theory and contributed new knowledge and the opportunity to create a context specific practical training evaluation model.

In conclusion, the above discussion and analysis demonstrated that the current research identified the four categories of outcome/consequence as the most effective way to organise training evaluation data results to aid subsequent management decision making, findings different to all of the existing training evaluation models. Plus, the current research both extended the scope of existing levels of training evaluation and added new or changed levels of evaluation to the existing theory and models of training evaluation introduced in chapter 2. Thus, the research filled the research gaps identified in section 2.8 and offered a way to more appropriately and meaningfully measure the success of training programmes, specifically within the context of the textile industry in Bangladesh.

#### **5.2.6.2 A contribution to new knowledge**

The previous discussion indicated the ways in which the research contributed new knowledge that was theoretical, practical and methodological in nature. The theoretical contribution added to, extended and improved the definitions of the constructs used in the existing training evaluation models. The practical implications offered were based on contextual data which meant that the relevance and applicability of the theory and model to that context were high and therefore they had the potential to impact the design and delivery of training in both the short and long terms. The methodological contribution was the application of grounded theory methodology for the evaluation of training in an academic and organisational context where that had not been done previously.

##### **5.2.6.2.1 Theoretical contribution**

The research provided several theoretical contributions. The critical review of the existing

literature in chapter 2 demonstrated that training evaluation had been a leading area of research in the developed world for many years. But that review also found that very little literature from a developing economy context existed. Also, more specifically, no research was found on training evaluation from the context of the textile industry in Bangladesh. Chapter 2 therefore identified several gaps in the existing literature and knowledge. The research set out to fill the identified knowledge gaps and consequently, the research developed a new substantive theory that explained how training could be evaluated effectively in a cultural and business context that was different to that of all existing literature. Consequently, the research represented a major contribution to the creation of new knowledge within a new and different research context.

The theoretical contribution of the research was the development of a new definition of training evaluation and its associated processes, explained in sections 4.3, 4.4, 4.5, 4.6 and 5.2.5. In those sections the evaluation of training programme outcomes/consequences was more systematically explained and defined as a process to assess the degree to which training objectives were achieved and the validity of them verified in terms of learning outcome validity, behavioural outcomes and performance outcomes being aligned with organisational objectives.

The empirical findings provided the basis to explore and identify a new approach to the evaluation of training outcomes based on two causal conditions, six contexts, one intervening condition, six processes and four consequences/outcomes (section 5.2.5 and figure 5.1). Moreover, the identification and conceptual definition of additional constructs were added to the conceptual framework (e.g., causal conditions/independent variables, intervening conditions/mediating, contextual conditions, processes and consequences) in section 5.2.5 and figure 5.1. The result was a new theory and model with the potential to make training activities more successful, meaningful and valuable.

The two categories related to training evaluation causal conditions that emerged from the interview data were training needs assessment and training objectives validity. They determined the six contexts of training evaluation (trainee reaction, learning, employee productivity, employee performance, employee commitment, and employee creativity) and to influence, and lead to, the evaluation of training programme outcomes (subsection 5.2.5.1.1 and figure 5.1). None of the existing training evaluation models addressed training needs assessment and training objectives validity as influences on training evaluation contexts and training programme outcomes. Therefore, the research contributed new knowledge to existing training evaluation theory.

The six contexts emerged as categories through the analysis of the research data and their function was to assess the value of training programmes (sections 5.2.1, 5.2.2 and figure 5.1). The first four categories of the contexts were identified as having some measure of equivalence with factors from the existing training evaluation models. The other two categories of context, employee commitment and employee creativity were identified as new factors (compared to those found in the existing literature) and contributed meaningful additions to the development of the context specific theory and model for the evaluation of training programme (section 5.2.2 and figure 5.1). Consequently, the new conceptual training evaluation model described in section 5.2.5 and figure 5.1 was different to existing models as a result of the findings of the current research.

The intervening condition found from the interview data was the single contextual factor (that comprised individual differences, work climate and organisational culture) that facilitated/ constrained the six contexts of training evaluation (trainee reaction, learning, employee productivity, employee performance, employee commitment, and employee creativity) and facilitated or constrained the six strategies/processes (feedback, test, productivity ratio, performance appraisal, monitoring and creativity workshop session) to evaluate the effectiveness of training programme (section 5.2.4, subsection 5.2.5.1.2 and figure 5.1). None of the existing training evaluation models identified a contextual factor that influenced training evaluation contexts or strategies/processes. Therefore, the research contributed new knowledge to existing training evaluation theory.

The six strategies/processes that emerged as categories through the research were used to assess the six contexts of a training programme evaluation in order to determine the value of the programme (section 5.2.3 and figure 5.1). Four of the six strategies/processes (productivity ratio, performance appraisal, monitoring and creativity workshop session) were identified as new factors (not found in the existing literature) and contributed meaningful additions to the development of the context specific theory and model for the evaluation of training (section 5.2.3 and figure 5.1). These six strategies/processes were grouped together under the four outcomes/consequences categories in the current research to further aid subsequent decision making about training design and delivery, as aspect of evaluation not included in any existing model. Consequently, the conceptual training evaluation model described in section 5.2.5 and figure 5.1 was different to existing models as a result of the findings of the current research.

The new emergent training evaluation conceptual model (figure 5.1) reflected the causal, intervening, contextual conditions, processes and outcomes that provided a meaningful

assessment of whether training programmes attained their objectives within the research context. The model reflected the immediate outcomes, direct outcomes, behavioural outcomes and performance outcomes of training programme which offered a new approach to its evaluation based on, and relevant to, the research context. This aspect of the proposed model was not included in any of the existing training evaluation models and therefore, it offered a significant contribution to both theory and practice

The development of an improved theoretical rationale was established rigorously and discussed in sections 1.3, 1.4, 2.3, 2.6, 2.7 and 2.8. The new conceptual model was developed from the theory developed during the research and provided a stronger focus on training objectives reflected in the four outcome/consequence categories and was potentially easier to operate for the assessment of training programme outcomes compared to existing training evaluation models. That was because it introduced more relevant and practical levels of evaluation (only the first two levels from existing models tended to be used). Plus, it related more strongly to individual performance rather than organisational performance (sections 5.2.1, 5.2.2, 5.2.5 and figure 5.1). It also provided a more effective approach to training evaluation than existing models of training evaluation by using readily measurable factors for employee performance. The study found that although there were benefits to be gained through training to enhance employee creativity and employee commitment, no studies in the training evaluation field made use of them. The research therefore added to existing training evaluation knowledge in several ways relevant to the specific research context. However, the theory and model developed through this research being based on grounded theory was only applicable to training evaluation within the textile industry in Bangladesh. As an exploratory study, the findings of the current research would need to be explored through subsequent research that, for example, sought to incorporate an employee perspective and confirm the viability and practicality of some of the strategies/processes. Plus, for it to have relevance beyond the current research context further research would also be needed.

#### **5.2.6.2.2 Practical contribution**

The practical (or managerial) contribution that emerged from the research was the development of a new and more effective definition and approach to training evaluation, based on and specifically designed to better serve the needs to the textile industry in Bangladesh (section 5.2.5 and figure 5.1). Thus, companies in the textile industry have been provided with a unique model which potentially provided significant organisational, training provision and employee benefits as well as the possibility of commercial advantage.

The research extended the scope of some of the categories from existing training evaluation models, amended others, and added new categories where appropriate to the specific research context. The research also offered guidelines on how to assess the training evaluation contexts (trainee reactions, learning etc.) within the new model based on the strategies/processes (feedback, test etc.) discussed earlier (section 5.2.5 and figure 5.1). All of which were organised into the four outcome/consequence categories a feature not found in any of the existing training evaluation models. The research findings are therefore relevant to management decision making and the work of training practitioners by providing guidance about how trainees could be encouraged to use newly acquired KSAs in their work. Therefore, providing an increased likelihood of training transfer and of it having a positive impact on individual, team and company performances. It would also potentially provide long term benefits through a contribution to the design of existing and future training courses. Specifically, the model enabled managers and practitioners to understand what organisations actually needed to do for the effective evaluation of training programmes.

This research offers findings relevant to the decision making of managers and practitioners in relation to training programme evaluation. It provides guidance and suggestions about what trainees require to encourage them to use their newly acquired KSAs back at work. Thus, a company should consider individual differences, work climate and a favourable organisational culture as necessary for employees to exercise their newly acquired KSAs in their work and hence contribute to improved performance and organisational success. Plus, the research demonstrated how to use the understanding of what had been learned from training and its impact on workplace behaviour as part of training evaluation (section 5.2.5 and figure 5.1).

The proposed model provided guidelines to HR managers, training providers and training evaluators on how to assess training programmes in a way that would be of practical value in the textile industry in Bangladesh (section 5.2.5 and figure 5.1). It provided companies and training providers in that context with a specific and unique model which offered practical benefits and the opportunity to focus on important areas of training impact such as work performance, individual performance and business performance.

#### **5.2.6.2.3 Methodological contribution**

A number of significant methodological contributions were also identified through this research. For example, the abstract conceptualisation of patterns in data and the engagement with literature both before and after the adoption of grounded theory as a fully-fledged



methodology. A grounded theory model of the evaluation of training was generated using Straussian grounded theory data analysis processes in order to develop and validate the theory that emerged. In short, the conceptual model emerged from the iterative process of grounded theory data analysis. It was presented as a paradigm model that linked the categories in a set of relationships which described the evaluation of training outcomes in terms of causal conditions, context, intervening conditions, processes and consequences/outcomes. It also integrated all the identified categories with the core category of training programme evaluation (sections 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.2.5 and figure 5.1).

Consequently, the methodology adopted was a contribution to existing knowledge about the use of the grounded theory methodology in developing economies, specifically the textile industry within Bangladesh. The data collection methods, theoretical sampling and data analysis process that were used in the research were different to the methodologies adopted by previous studies of training evaluation. Therefore, this research contributed to the methodological application of grounded theory to new and different research contexts. That created a unique study and a methodological contribution to the existing body of knowledge.

### **5.3 Summary**

The emergent new theory proposed in this research was based on six contexts, namely, trainee reaction, learning, employee productivity, employee performance, employee commitment and employee performance in order to evaluate training programmes within the context of the textile industry in Bangladesh. Six strategies/processes were also identified in this research through which to assess the six contexts. They were, feedback, test, productivity ratio, performance appraisal, monitoring and creativity workshop session. The research also identified the contextual conditions of individual difference, work climate and organisational culture as influences on training evaluation contexts. The conclusions from the research were presented in diagrammatic form as figure 5.1. The new conceptual model for the evaluation of a training programme was developed based on the Bangladesh textile industry perspective but had the potential to be tested again or in different ways in both that and other contexts through further research. According to Creswell (2014) and Lincoln and Guba (2005), exploring research issues from different contexts and in different ways provided meaningful insights into a given situation and provided the means to more fully understand phenomena. As such, the research offered the development of a new approach for the evaluation of training, meaning that its original aim

and objectives were clearly achieved. The next chapter will draw together the conclusions and recommendations from this research.

## **Chapter 6: Conclusions**

### **6.1 Introduction**

This chapter will conclude the entire research project by reviewing its outcomes and highlighting the research contributions in terms of the substantive area of study. The research questions originally identified and explained in chapter 1, are revisited and a summary of the answers provided. That will be followed by a discussion of the findings in terms of their relevance to the central research aim. Thus, the achievement of the research aim and objectives will be demonstrated. The evaluation of the study will also address the credibility, originality, resonance and usefulness of the research. The appropriateness of the methodology adopted in the theoretical and empirical stages of the research process is also evaluated in this chapter. This chapter also identifies the research strengths, limitations, research bias and possible themes and directions for future research.

### **6.2 Achievement of the research aim and objectives**

The aim of the research was “to assess the existing models for the evaluation of training and subsequently, to propose a new theory based on the context of, and managerial perspectives from, the textile industry in Bangladesh and to explore the potential of a model based on the emergent theory for use in that context.” A clarification and justification for selecting the research theme and context was provided in section 1.4. The aim and objectives for the research were researched using the grounded theory methodology.

The contextual conditions and processes for training evaluation were identified through the analysis of interview data. Interviews were conducted in the Bangladesh textile industry and stopped after 45 cases, when no data emerged that added new categories or to the understanding already achieved. In chapter 4, six training evaluation contexts were identified from the research data that formed, defined and explained the levels through which to measure the value of training within the research context. Subsequently, six training evaluation strategies/processes were identified and defined from the research data that were appropriate for the measurement of the six identified contexts. Through the analysis of contexts and processes it was possible to develop a context specific underlying theory for the evaluation of training programmes within the textile industry in Bangladesh. The theory for the evaluation of training programmes provided a conceptual portrayal of the data that best captured an understanding of participant experience (chapter 5). The context specific theory that emerged from the research rested upon the researcher’s interpretation of the phenomenon under study as informed by data obtained through interviews, documentary

sources and existing literature.

### **6.2.1 Key findings of the research**

This section will summarise the findings that emerged through the constant comparison analysis of the empirical data as it became available through interviews. It will also address how answers to the research questions were obtained. The research questions were developed from, and so relevant to, the aim and objectives of the research. Consequently, because they were fully answered (chapter 5) the research aim and objectives were demonstrably met. The findings of the study were presented and fully analysed in chapters 4 and 5 and are briefly summarised below:

**Research question 1:** The first research question sought to identify how companies in the textile industry in Bangladesh assessed the effectiveness of training programmes. This was relevant to objectives 1 and 5. The answer to this research question justified the claim that the objectives had been fully and effectively met.

The answer to the first research question was that the textile industry in Bangladesh frequently assessed the effectiveness of training programmes through four categories. The four categories used were trainee reactions, learning, employee productivity and employee performance. Firstly, the textile industry frequently assessed trainee reactions to identify the extent to which trainees were satisfied with the training course, training design and learning environment. Secondly, the textile industry frequently assessed the trainee's learning to evaluate the degree to which their KSAs improved as the result of the training received. Thirdly, but less frequently than trainee reactions and learning, they assessed employee productivity to measure the degree to which trainee output productivity and service productivity increased due to improved capabilities as the result of the training received. Finally, but also less frequently than trainee reactions and learning, companies assessed employee performance to evaluate the degree to which trainee task performance and adaptive performance increased as a result of attendance at a training programme. The textile industry sometimes used all four categories, but most frequently (according to respondents) focussed on trainee reactions and learning to evaluate training outcomes. A range of appropriate literature was identified, not all related to training or its evaluation, which supported the views of respondents.

**Research question 2:** This research question sought to identify what other factors were required or useful for the evaluation of training programmes within the textile industry in Bangladesh? This research question was relevant to the achievement of objectives 2 and 5. The answers to this research question justified the claim that the objectives had been fully

and effectively met.

The findings were that the textile industry in Bangladesh could assess the effectiveness of training programmes through two additional categories. The two categories identified by respondents as relevant to the evaluation of training in the research context were employee commitment and employee creativity. Respondents thought that these additional categories were significant training outcomes that directly impacted on organisational ability to perform effectively in increasingly competitive international trading environments. According to respondents the category employee commitment could be assessed through the degree to which trainee teambuilding, punctuality, motivation and OCB increased as a result of the training received. Also, respondents thought that employee creativity could be assessed to evaluate the degree to which trainees acted on ideas, did things differently and that their problem solving abilities increased as the result of attending a training programme. Employee commitment and employee creativity could therefore become significant additional categories through which to more fully and effectively assess the value of training within the research context. A range of appropriate literature was identified, not all related to training or its evaluation, which supported the views of respondents.

**Research question 3:** The third research question sought to identify how the factors identified in RQs 1 and 2 could be measured in order to assess the value or success of training programmes in the context of the textile industry in Bangladesh? This research question was relevant to the achievement of objectives 3 and 5. The answers to this research question justified the claim that the objectives had been fully and effectively met.

Six categories emerged from managerial perspectives of the way in which the evaluation of training programmes was and could be carried out in the particular research context. These were: trainee reaction, learning, employee productivity, employee performance, commitment and employee creativity. Each of the identified process categories was, according to respondents, appropriate to the assessment of one of the identified levels of assessment previously indicated. All of the processes were supported by appropriate training evaluation or specific topic literature.

**Research question 4:** The fourth research question sought to identify and assess what factors influenced the evaluation of training programme outcomes and processes? This research question was relevant to the achievement of objectives 4 and 5. The answers to this research question justified the claim that the objectives had been fully and effectively met.

One category, contextual factors emerged from interviews as the intervening condition that influenced the evaluation of training programme outcomes and processes within the textile industry in Bangladesh. Respondent views were supported by appropriate training evaluation and specific topic literature.

**Research question 5:** The fifth research question was based on the answers to RQs 1, 2, 3 and 4, and sought to create a context specific theory and practical model which provided the most appropriate means of measuring the effectiveness and value of training within the research context. The research question was relevant to the achievement of objective 6 and the answer identified justified the claim that this objective had been fully and effectively met.

From the answers to the previous research questions, three types of categories emerged: conditions (causal, context and intervening), strategies/processes and consequences/outcomes (sections 5.2.1, 5.2.2, 5.2.3, 5.2.4 and 5.2.5). These were brought together in section 5.2.5 and the theory and model illustrated as figure 5.1.

**Research question 6:** The sixth research question explored the extent that the answer to research question 5 provided a development of the existing training evaluation models, thereby contributing to new knowledge, company policy and practice in the context of the textile industry in Bangladesh. The research question was relevant to the achievement of objective 7 and the answer identified justified the claim that this objective had been fully and effectively met.

This research question addressed two important issues. Firstly, the justification for the development of a new theory based on a discussion/comparison of the new model with the existing training evaluation models (subsection 5.2.6.1) and secondly, a contribution to new knowledge in terms of theoretical, practical and methodological contributions (subsection 5.2.6.2).

### **Development of a new theory**

A conceptual framework was developed from the emergent categories and justified during the grounded theory research process which integrated respondent views with relevant literature. Not all of the literature relevant to the current research had been integrated into the existing training evaluation models. Consequently, though this research the creation of the substantive theory from the conceptual framework resulted in the creation of a new approach to the evaluation of training programmes developed within the context of textile

industry in Bangladesh. The new substantive theory, its development and justification was presented in chapter 5 and shown pictorially in figure 5.1.

### **6.3 Evaluation of the research**

The evaluation of the research identified strengths and limitations which are discussed below. That discussion will explain how the criteria and standard for the successful application of grounded theory were achieved. Four criteria and standards for the execution of an appropriate and successful constructivist grounded theory research project were outlined by Charmaz (2006) and were: credibility, originality, resonance and usefulness of the research.

#### **6.3.1 Credibility**

The research was designed to develop an appropriate approach to the evaluation of training in the textile industry in Bangladesh. It was to be based on the perspectives of managers working in that context and relevant literature. The researcher's origins, work experience and academic background facilitated both access to the research context and credibility with participants. The research closely followed the guidelines required of grounded theory by carefully listening to participant responses during interviews and based on those seeking appropriate and additional insights. Field notes and audio recordings were created; interviews were transcribed as soon as possible afterwards; interview text was read and re-read several times; the original notes transcriptions and audio recording were cross-checked for understanding and accuracy of transcription several times. This rigorous process ensured that the research was firmly grounded in the data, which in turn facilitated the establishment of credibility for the data transcription, analysis and subsequent new model development. The benefit of recording interviews was increased efficiency and accuracy in understanding of respondent opinions. Audio recording enabled a full and accurate transcription of participant views, thereby creating a reliable record for subsequent analysis. Interviews represented a rigorous data source as they provided meaningful insights into critical phenomena by providing answers to the questions why and how, thereby further adding to the credibility of the research. Effective application of grounded theory required a constant interplay between the researcher and the data (Corbin and Strauss, 2015; Charmaz, 2014; Strauss and Corbin, 1998) and the above summary clearly demonstrated the achievement of that.

Grounded theory also required the application of rigorous data coding procedures to increase the validity of data interpretation. The current research used open coding to identify categories, axial coding for the identification of relationships between categories

and selective coding to identify the emergent theory. The transcribed interview records, memos, coding paradigm, conditional relationship guide and constant comparative analysis used throughout the research process assisted the coding processes (following Corbin and Strauss, 2015). Coding not only established links between data collection and emergent theory but also established a link between empirical reality and the researcher understanding of it (Charmaz, 2014). The incorporation these elements into the research, based on the established processes, methods and underpinning of grounded theory, facilitated and demonstrated the achievement of research credibility.

The findings of the research are not incontrovertible facts, but represent researcher constructed truth based on the interpretation and understanding of interview data, literature and the other sources of data integrated into the research. According to Corbin and Strauss (2015) and Charmaz (2014), the extent to which constructed truths were reliable, viable and defensible depended on the presentation of them to the reader in a meaningful way. Charmaz (2006) suggested that what was presented and how it was presented, should allow the reader to adopt an independent assessment of the claims made. Then, provided an adequate explanation of the research and its findings are presented, agree with them because the evidence presented allowed such a conclusion.

### **6.3.2 Originality**

The research offered an original and deeper understanding of the phenomenon under study from the perspective of respondents who worked in the Bangladeshi textile industry. At the simplest level, the research was original because it was the first time that grounded theory had been used to explore the topic and the first time that the topic had been studied in that context. The categories and subcategories that reflected participant experience (discussed in chapters 4 and 5) were original and offered new insights into the topic of training evaluation in the textile industry relevant to that context. That led to the identification of how evaluation could be improved through the development of the new and original emergent theory and model to more appropriately and meaningfully assess the effectiveness of training within that context. The research found that there was limited knowledge available through existing literature and models, and what was available originated in western, non-Bangladeshi (or its textile industry) contexts. The analysis of the all the data available provided a new conceptual framework for the assessment of the value of training within a defined industry in the developing country of Bangladesh. This new framework provided a conceptual rendering of the experiences of mid and higher level employees in that sector and explained the multiple realities associated with the development of an evaluation process within that context. Consequently, originality was



demonstrably achieved by the current research. The research also contributed to new knowledge in terms of the theoretical significance that originated from the theorising of the processes on how to evaluate the value of training and the application of grounded theory in a new and different research context.

### **6.3.3 Resonance**

Resonance portrayed the fullness of the studied experience. For example, whether the research made sense to the participants who shared their experiences and whether the analysis offered them deeper insights about their lives and world (Charmaz, 2006). That required the determination of two elements of participant involvement. The first was the requirement for the research to make sense to respondents, which was achieved in the way that they were recruited and the purpose of the research explained to them. For example, the consent form, which explained the purpose of the research project, was provided to participants at the beginning of the interview. A significant amount of time was allowed for participants to read the consent form and to understand the purpose of the research before the interview began. Participants were asked whether they fully understand the purpose of the study and the interview process. The resonance of the research was also demonstrated through the willing contributions of respondents, data that led to the development of the categories identified during the research. The only way that the second aspect of the establishment of resonance could be fully determined was through the inclusion of an iterative process as part of the research design. That would involve a second loop of feeding back to respondents the outcomes and conclusions of the research and seeking their views about both it and the evaluation of training as informed by the research and conclusions presented to them. Clearly, that could not be achieved within the current research project and so would of necessity form part of a subsequent research plan intended to confirm, develop and extend the findings from the current research. However, given that each interview contributed to the evolving development of material that fed into subsequent interview preparation and questions, a minor degree of feedback was incorporated into the research design.

### **6.3.4 Usefulness**

The usefulness of this research came from the practical model and evaluation strategies/processes that formed the outcomes/consequences from it grounded in the managerial perspectives within the textile industry and relevant literature. Plus, usefulness was created by the contribution of new knowledge in relation to the development of a new, context specific training evaluation theory and model and the application of grounded theory research in a different research context. Additionally, the outcomes from this

research identified areas and topics for future research, further contributing usefulness to the academic and practitioner communities.

Training programme evaluation in the textile industry in Bangladesh had not previously been explored and this research provided new insights that improved the context specific understanding of company practice and led to the development of a new model designed to improve training evaluation within that context. The application of the model created from this research should help practitioners understand and identify the strengths and weaknesses of a particular training programme, and to more effectively and appropriately design and deliver future training. The research demonstrated that training courses, training design and the learning environment are all interrelated and need to be taken into account if training was to be successful. This research demonstrated usefulness as it provided a framework for the textile industry to make training more effective and leverage it for improved training, performance and commercial results.

#### **6.4 Strengths and limitations**

All research contained strengths and limitations and acknowledgment of these did not automatically reduce the value of it. On the contrary, acknowledgment of them enriches the value of the research by articulating the underlying assumptions and making them open to critique. The findings of this research were obtained by conducting interviews with 45 employees who worked in the textile industry in Bangladesh, all having experienced at first hand training programmes and the evaluation of them. The interpretive theoretical perspective was adopted for this research and the research was contextually situated in time, culture and place.

The findings are not representative of all locations, industries or types of organisations; however, generalisability is not a requirement of grounded theory research. Once coded, qualitative data became part of the analytic process and qualitative research recognized there was no single interpretive truth for that data (Denzin and Lincoln, 2011). By not claiming relevance beyond its context, one of the key strengths of the current research was demonstrated.

Qualitative research was concerned with contextual meaning and not hypothesis-based proof. Therefore, 45 participants in the study were appropriate for the understanding of the social world of multiple meanings in the specific research context. That was because one occurrence of a particular piece of data was as useful as many in understanding an issue or topic because more data did not necessarily lead to additional or new information. Therefore, one occurrence of a piece of data, or a code, was all that was required to ensure that it

became part of the analysis (Cresswell, 2014; Crouch and Mckenzie, 2006; Ritchie and Lewis, 2003). In essence, qualitative research cannot and does not claim to achieve the levels of generalization possible through significance testing (Crouch and Mckenzie, 2006).

In addition, grounded theory research involved many iterative cycles of data analysis until data saturation was achieved. Data collection stopped when no new data emerged, which was reached after 45 interviews had been coded. Qualitative research was relevant to understanding the social world because phenomena could be explained in a way which presented a comprehensive and realistic picture of the beliefs, views and a way of life as experienced by the people living in a specific context (Denzin and Lincoln, 2011). Thus, the approach adopted by this research identified and provided valuable insights and knowledge relevant to the creation of new knowledge in the research context that might have been overlooked had different research methods been adopted. Conversely, a weakness of the current research was that the outcomes cannot claim the generalisability that would have been available had quantitative research been adopted.

The strength of the current research design and process lay with the richness, suitability, depth and sufficiency of the data (Charmaz, 2006). The subjectivity of the researcher added another layer of complexity to the research process and outcomes because the research data was inevitably filtered through personal understandings, perspectives and prior knowledge. Polit and Beck (2010) argued that the interpretation of phenomena was a subjective process based on the involvement of both participants and researcher which might lead to the misinterpretation of data. However, in this research project, the coding and analysis process minimised the risk of the misinterpretation of data because the grounded theory principles and conventions were strictly followed – for example, each transcription was read several times and the audio recording was also played multiple times during the analysis process. Plus, the current research was exploratory and consequently identified areas for further research at several points. Such research would provide the opportunity to confirm or otherwise the findings from this research, perhaps through the adoption of different research approaches.

According to Bryant and Charmaz (2007), the main limitation of grounded theory was the tedious, complex and time-consuming nature of the coding process and memo writing. In the current research, although this was a complex and time-consuming process it greatly added to the quality and significance of the research and the outcomes that emerged from it. In practice, it created the depth of understanding of the research topic, which along with the interview and analysis protocols followed, encouraged a full and complete analysis of

the data collected. Another potential weakness with grounded theory research was that a novice researcher might be hampered by the scale and requirements of the coding process which could result in ideas and themes being missed (May, 2011). However, because of the total immersion in the data during analysis, the coding process adopted and the care taken during the transcribing and coding processes the generation of ideas or themes was not hampered. The complexity and difficulty of mass coding was minimised and controlled by breaking it down into smaller individual analysis and coding processes carried out over several iterations which had the additional benefit of adding understanding as the field research unfolded.

Grounded theory was sometimes considered controversial because of how and when the existing literature was integrated into the research process (Bryant and Charmaz, 2007). Arguments both for the early and delayed inclusion of literature have been made (see for example, Corbin and Strauss, 2015; Schreiber, 2001; Glaser and Strauss, 1967). Given the lack of a definitive approach being offered, this research adopted the Strauss and Corbin approach. Consequently, limited literature was reviewed before entering the research field to better articulate research ideas, to better understand methodological issues and to avoid potential research bias. Plus, it was a requirement of the pre-research PhD stage of the programme. However, as pointed out by Corbin and Strauss (2015) it was impossible to be a true *tabula rasa* researcher as the result of prior experience and knowledge. Consequently, the review of some literature at the early stage of the research would have only had a limited impact on the research process or outcomes because of the close adherence to grounded theory requirements.

### **6.5 Identifying and avoiding bias in the research process**

According to Ritchie (2009), all research had the potential to obtain biased data or to inadvertently incorporate bias in the analysis or interpretation of the results. Bias might occur at any phase of the research, including the design, data collection choices, participant selection, interviewer preconceptions, during the transcription of data for analysis and during data analysis. According to Miles et al. (2015), bias could be significantly controlled through the clear identification and definition of risks and outcomes and the recognition of the necessity for standardised protocols for data collection and respondent selection. This was done as far as it was possible to do so in the planning the current research, for example:

**Participant selection:** According to Lee and Marshal (2000), participants should originate from the same general population as the research context. In this research, all participants were selected from the people working in or connected to the textile industry in Bangladesh.

The research design and the pilot study also helped to identify appropriate research processes and interviewee selection criteria, thereby minimising bias as far as it was possible to do so.

**Data collection procedures:** During data collection, bias was controlled through the application of rigorous data collection processes. For example, through confirmation that participants were willing to be interviewed and the explanation to participants that their answers would remain confidential. The interviews were held in favourable conditions without any extraneous noise or other distractions that could interfere with the thinking of participants, their responses or distract the interviewer. Interviews were not rushed which allowed respondents to explain their thinking as fully as they wished to and also allowed time for follow-up questions based on their answers. The researcher avoided influencing participants by not responding to, or expressing opinions about, participant comments and patience in administering and explaining questions was used.

**Interviewer preconceptions:** Interviewer bias can be minimised if the interviewer does not know the outcome, or if the outcome had not yet occurred in the research trail (Kaplan et al., 2001). The researcher did not favour a particular outcome from the research and did not analyse the results to align with any pre-conceived ideas or theoretical perspectives. Outcomes were constructed through the rigorous coding process and then interpreted based on the theoretical concepts that emerged through the coding process and the literature reviewed.

**The process of data analysis:** Straussian grounded theory data analysis was applied in the identification of appropriate and meaningful findings. Grounded theory dictated an iterative process of data collection, coding, categorising, and making comparisons, supported by theoretical sampling until theoretical saturation was achieved. Understanding of training evaluation and the resultant theory as relevant to the context emerged progressively during the indicated data analysis process.

Bias was controlled as much as possible through the above actions being adopted in this research. Ritchie (2009) suggested that all qualitative research was prone to bias creeping into interview results. Consequently, it can only be avoided or controlled to a certain degree, one of the main reasons why the results cannot be generalised.

## **6.6 Implications for practice and future research**

The major outcome from this research was the development of a new conceptual theory and model for the evaluation of training programmes grounded in local expertise and relevant literature. The theory and model proposed was exploratory, but being context specific provided a new and potentially effective basis for both practitioners and training

providers to use. The theory and model comprised six major categories which provided a complete evaluation of training outcomes. These categories were further grouped into four training outcomes/consequences that offered a unique perspective on how to evaluate training compared to the existing training evaluation models. The trainee reaction and learning categories were found in the existing models and also currently the most frequently used assessment tools to assess training effectiveness within the textile industry. The research concluded that these two categories on their own would only be appropriate to organisations that did not have significant training resources, or where very basic training was provided. The two other categories of employee productivity and employee performance, also found in existing training evaluation models, were discovered to be less frequently used by textile industry organisations to assess training outcomes. Where used they were likely to be found in more sophisticated training environments, but as discovered through this research they had the potential for wider adoption.

In addition to the four categories indicated above and which were found in the existing training evaluation models, two new categories were identified by the current research. They were employee commitment and employee creativity, both of which offered significant, context specific, measures of training programme evaluation. These new categories were considered to be particularly significant for organisations that had significant and sophisticated training provision along with well-established training evaluation practices and processes. The research also found that the categories organisational performance, return on investment, and societal contribution, found in the existing models of training evaluation, had little significance in the views and experience of respondents. Consequently, they were not incorporated into the emergent model and theory developed through this research.

The new categories of training evaluation identified in the research (employee productivity, employee performance, employee commitment and employee creativity) were considered by respondents to be time consuming and/or resource intensive ways to collect data for training evaluation. Plus, they were suggested to offer little or no value for some organisations or situations. However, respondents thought that organisations could select all or some of them as appropriate to the particular training event or circumstances, thereby providing a flexible evaluation model. The research also offered guidelines on how to assess the six contexts identified within the new model based on the six strategies/processes. All of which were organised into the four outcome/consequence categories, collating the data collected into a form relevant to management decision making and the work of training practitioners.

Among the specific aspects identified in the research that could impact on the level of training success achieved were individual differences, work climate and organisational culture. These factors significantly influenced the training evaluation context and subsequently, facilitated or constrained the training evaluation process. Each of these aspects was included within the emergent theory and model as being within the six contexts identified above. Therefore, they should be considered when training is evaluated if it is to be comprehensive and effective. In some cases, ways of assessing each of these aspects was indicated, but in others it was not possible to do so at this stage and therefore opportunities for future research were indicated where appropriate. In other cases, issues identified as relevant criteria for training evaluation were not taken forward for inclusion in the final theory and model for many reasons. For example, profitability was dependent on many factors such as strength of demand, number of units sold, relative cost, raw material price fluctuations, level of advertising, degree of competition, productive use of resources and efficient management, which made it too complex to include at this stage. However, these represented issues which could usefully be explored in greater detail in future research. In addition, the research identified that some existing procedures used for specific purposes could be re-purposed for, or integrated without change, in training evaluation. For example, performance appraisal was widely used for the annual review of employee performance and usually included such aspects as the need for any training and career related decisions for employees. Both of which had obvious relevance for the planning of training and its evaluation. Currently in the Bangladeshi textile industry, performance appraisal was widely used for all levels in a company, including production workers. Respondents thought that such procedures could easily be adapted to meet the requirements of training evaluation in addition to the usual purposes. Thereby the proposed theory and model could minimise the potential administrative burden and offer a comprehensive and integrated training evaluation process linked with other HR strategies and policies.

The grounded theory methodology adopted precluded the generalisability of the findings to different contexts. However, many of the factors identified in this research and which shaped the emergent theory and model for the evaluation of training could be present to some extent in other businesses and locations. Equally, being based solely on managerial perspectives, future research could usefully explore non-managerial perspectives in seeking to develop, extend and refine the theory, model and its significance. The research identified several opportunities for further research to explore the degree to which the proposed theory and model could be applied in different contexts both in Bangladesh and

other countries. Equally, as an exploratory research project based on qualitative research, the opportunity for further, perhaps quantitative research, to confirm, extend and cross-check the findings using different research methods was also indicated at several points in the thesis.

In summary, the training evaluation theory and model developed through this research offered a new approach to the evaluation of training programmes in the specific research context. The model was developed to meet both academic and practitioner needs. It introduced new, additional and extended categories, compared with the existing models, along with the necessary measurement processes for the comprehensive and effective evaluation of training within the textile industry in Bangladesh. In addition, the new theory was developed using grounded theory and consequently added considerably to new knowledge in relation to both research methodology and training evaluation.



## Reference and Bibliography

Wherever possible the latest editions of all reference sources were used. However, inevitably some have been revised and updated over time to include additional research, new knowledge, expanded coverage, and new examples of the topic. Equally, subsequent editions of a source might have topics or themes significant to the current research deleted. Therefore, occasionally different editions of the same source have been used where that use was necessary to the argument in the thesis.

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## Appendices

### Appendix A: Participant information

Out of a total of 45 participants, 42 were interviewed in-depth from 30 different textile companies in Bangladesh and 3 were interviewed in-depth from 3 different textile industry training providers in Bangladesh.

Company	Participant Code	Age	Department	Position	Qualification
A1	C1	43	HRD	General manager (GM)	Masters
A2	C2	45	HRD	General manager (GM)	Masters
A3	C3	44	Production	General manager (GM)	Masters
A3	C4	35	Production	Manager	Honours
A4	C5	50	HRD	Chief executive officer (CEO)	PhD
A4	C6	38	T&D	Manager	Masters
A5	C7	39	T&D	Manager	Masters
A6	C8	36	T&D	Manager	Masters
A6	C9	46	Production	General manager (GM)	Masters
A7	C10	48	HRD	General manager (GM)	Masters
A7	C11	44	T&D	Manager	Masters
A8	C12	45	HRD	Manager	Masters
A8	C13	38	Production	Manager	Honours
A9	C14	39	HRD	Manager	Masters
A10	C15	47	T&D	Head	Masters
A11	C16	42	HRD	General manager (GM)	Masters
A11	C17	37	T&D	Manager	Masters
A12	C18	41	HRD	General manager (GM)	PhD
A12	C19	44	Production	General manager (GM)	Honours
A13	C20	46	HRD	General manager (GM)	Masters
A14	C21	49	T&D	Head	Masters
A14	C22	40	HRD	Manager	Masters
A15	C23	35	T&D	Manager	Masters
A15	C24	49	HRD	General manager (GM)	Masters
A16	C25	44	HRD	General manager (GM)	Masters
A16	C26	46	Production	General manager (GM)	Masters
A17	C27	37	T&D	Manager	Masters
A18	C28	45	HRD	General manager (GM)	Masters
A19	C29	45	HRD	General manager (GM)	Masters
A20	C30	36	Production	Manager	Honours
A21	C31	37	HRD	Manager	Masters
A21	C32	42	T&D	Manager	Masters
A22	C33	46	HRD	General manager (GM)	PhD
A22	C34	41	HRD	Manager	Masters
A23	C35	45	HRD	General manager (GM)	Masters
A24	C36	40	T&D	Manager	Masters
A25	C37	35	T&D	Manager	Masters
A26	C38	42	HRD	General manager (GM)	Masters
A27	C39	48	T&D	Head	Masters
A28	C40	47	HRD	General manager (GM)	Masters
B1	C41	45	Training	Training Instructor	Masters
B2	C42	45	Training	Training Instructor	Masters
B3	C43	41	Training	Training Instructor	Masters
A29	C44	42	T&D	Manager	Masters
A30	C45	39	T&D	Manager	Masters

## Appendix B: Biographical profile of participants in the research

Profile of participants	Number of participants, N=45
Sample	
Participants (managers) from textile Industry	42
Participants (managers) from training provider institute	3
Age	
35-40	15
41-45	20
46-50	10
Marital status	
Married	42
Unmarried	2
Divorced	1
Qualification	
Ph.D.	3
Masters	38
Honours	4
Job categories	
HRD (General manager)	14
HRD (Chief executive officer )	1
HRD (Manager)	5
Production (General manager)	4
Production (Manager)	3
T&D (Head)	3
T&D (Manager)	12
Training provider's Instructor	3

## Appendix C: Sample of interview questions

A sample of interview questions about the evaluation of training programme. These were translated into the local language for the actual interviews.

### Interview questions: Open ended and semi-structured questions

1. Do you have training provision in your company?
2. Please describe the training programmes that have been conducted in your company over the past two years.
3. Who gets access to that training?
4. How often training is carried out?
5. Do you assess the success or value to the company of any training that you provide and why?
6. If yes, can you explain the process involved in the assessment that you carry out.
7. How frequently this is done?
8. Who sees the evaluation reports?
9. Do you think that training is effective in terms of cost and production?
10. If you don't evaluate training programmes within the company, do you consider that would be a useful thing to do, and why?
11. If yes, then how? Who carries out the evaluation process and who gets to see the results?
12. Do you think that the existing process for the evaluation of training programmes within the company is appropriate?
13. If yes, can you explain why this is appropriate and if not then why?
14. If you assess training provision, do you use a particular theory or model as the basis of the assessment?
15. If so which model or theory do you use as the basis for the assessment?
16. If not then why?
17. Do you think that training programmes can be measured based on any criterion that your company does not currently use?
18. If yes, what are they and how could they be assessed?
19. Why do you think that the factors that you have just identified might be more useful to use in evaluating training?
20. Are there any other factors that you can think of that would be useful from your point of view and that might be usefully and measurable in assessing training programmes?
21. If yes, how do you think how these factors could be measured?
22. Do you think that the methods/tools that you use or any other measurable tools can be used effectively to measure the level of training programme effectiveness?
23. If yes, how would you use those tools to measure the value of a training programme?

## Appendix D: Sample of respondent interview consent

**The consent:** Each participant was asked to sign the consent form so that the interview data could be used in the research project.

- Maintain confidentiality
- Keep a copy of the consent form for your record

### IX. Subjects' Permission:

**Statement:** "I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent".

**Signature of the subjects**.....

**Contact information of Researcher:** Mahmuda Begum, PhD research member, GSOM, London.

**Contact information of Institutional Review Board**.....

## Appendix E: Sample of interview transcript

A sample of an interview transcript (translated into English by the researcher).

### Sample of interview transcript

Evaluation of training programme

Company Name: A4

Participant code: C5

Position: Chief executive officer (HRD)

Start: 12:00 am -1:25 pm

Date: 10/03/2015

P=Participants

I=Interviewee

A sequence of questions for a Training & Development and HRD

In depth interview

I: I have already explained the interview purpose, procedures, the research objectives and consent form that you just signed. Do you mind if we start?

P: yes, we can.

I: How long you have been working at this company?

P: 15 years

I: Oh really, long time. You are working here as CEO, I would say very responsible and prestigious position. Having a long experiences working in the HRD and training and development division, I suppose, you are the higher authority, aren't you?

P: Yes

I: Do you have training provision in your company?

P: Yes

I: Please describe the training programmes that have been conducted in your company over the past two years.

P: well, our company is currently organising coaching, job rotation and apprenticeship training methods within the organisation. In such training methods, employees are learning while working. All types of training are organised for the entire organisation at the lower level in the factory and mid level at the corporate office. Indeed, the most common training we are providing specially to the mid level employee is the job rotation where employee rotate role in order to gain knowledge of a wide range of jobs. Actually, in this process of training rotating employee through a series of related jobs in order to make an employee competent with different tasks and enables team building.

I: You meant, job rotation training for the mid level.

P: Right, apprentices also use frequently at the factory and corporate level within the

organisation. It is actually also kind of learning by doing. Like when an employee starts work as floor supervisor, he/she needs to serve as apprentices. An employee needs to work under the direct supervision of the expertise and also work in direct association with the masters. All employees in our company have to work as apprentices at least for 7 days.

I: Okay. Any other training methods?

P: Yes we have off the job training practice through a variety of training methods, for example; lecture base, workshop, seminar and international training programme over the last two years. Employees are getting training both at the training institute and abroad that allows trainee to learn theoretical knowledge and also management know how. Our company is providing training facilities away from work. It may be arranged at a special training centre away from the workplace that allows trainee to concentrate on the training content being taught.

Class room base training and workshop are organised at the factory level regarding machine operation, safety issues training and fire alarm. Class room base training and seminar are provided at the corporate mid level about customs, VAT Duty and taxes, Bank LC, employment treatment plan (ETP), Eco training. In such session, also provided to the corporate employee about leadership skill, improve marketing skill. Lecture base, seminar, Role model training programme are organised to provide training to the corporate employee.

I: Who gets access to that training?

P: It is provided within the entire organisation at the lower level in the factory and mid level at the corporate office.

I: Oh I see, how often training is carried out?

P: On the job training is designed every month at the factory level either for a week or two weeks. On the other hand, at the corporate level training is arranged every 3 months either for a week or a month. Off the job training is designed every six months for 7 days both for the factory and corporate level.

I: On the job training. Are those coaching, job rotation and apprenticeship training methods?

P: Right

I: Do you assess the success or value to the company of any training that you provide?

P: I am not clear, can you explain it?

I: Oh sure, you said that you are providing different training for some benefits or purposes. Then how you would understand that values or objectives are achieved. Do you assess the success of training programme?

P: Yes, we do assess

I: Can you explain the process involved in the assessment that you carry out and how frequently this is done?

P: After the training session we take employee reaction whether they are satisfied with the training course and about how they felt the training courses materials are helpful to them. An assessment is carried out after providing training in order to measure whether trainees are satisfied with the trainers lecture. Trainees are asked about training course after the training to

get response. For example, when trainee will response that the course materials were useful to them, they will more likely to be convinced to use their knowledge at work. Um response also on the training environment, like, what was the facilities, and available PC. Actually, getting their opinion is significant to understand training programme outcome.

An assessment is carried out after the training was delivered in order to measure what they have understood and learned in terms of knowledge, skills and attitudes. You know training was useful when employee really learned something from the training and were also be able to implement their acquired new knowledge, skills and attitude back to their work which positively reflect on direct outcome of the training course. These are related to the evaluation of the objectives of a training programme. On top of that, at first glance a learner should acquire new skills through training, no matter what kind of training it is but has to be benefited to increase skills. Thus, company attempt to assess on what types of skills really leaner gather in practice? Like technical skills or any other skill but not technical. These are related to evaluate the objectives of training programme.

Training programme is obviously helpful specifically to increase employee productivity. That is why, our company uses this to assess the outcome of training programme. However, we find sometimes difficulty in taking decision when to assess employee productivity, on what basis to assess and whom to assess. In fact, employee productivity identifying the extent to which trainees product and services output has increased in a given time. Um, this improvement has to impact on the work efficiency and work capacity with less effort.

I: right, you explained after the training you get employee opinion about training courses or content. Can you tell me how did you get their opinion?

P: Well. A set of questionnaires are provided to trainee immediate after the training to assess the reaction to the training course and this is done by asking a set of questions. For example, did you like the training programme? Did you like the training course content? These are so called structured questions. How was the course content? How the course content was relevant to the job? How effective were the trainer was?"

We also get employee opinion administering feedback form with some specific 5 scales rating score. It is the potential way to get feedback from the trainee about the training course and this will enable to confirm their satisfaction about the training programme. Such as, "Was the trainer well skilled? Specific 5 scales rating answer would be, extremely good, good, neutral, extremely bad and bad.

I: Oh I see, do you have feedback form or questionnaire sheet? Can I have one? As for more understanding and for secondary record?

P: Yes of course you can have. After the interview you will be given those.

I: That's a great! Thanks

I: Right, you were talking about learning or knowledge. Can you tell me how do you assess that trainee has learned or acquire knowledge after training?

As our training motives to enhance knowledge and skills, thus it's important to understand



whether they acquire knowledge. In fact, before that the training sessions start, we arrange test by asking some questions based on verbal or written to identify what knowledge already have. After the end of training we take paper base test and sometimes ask verbally what the new knowledge they have achieved.

I: Who take the test?

P: Which test? Verbal or written test?

I: Okay let's say both

P: Our trainer takes up the test before and after the training to examine the knowledge on the training contents and regarding this, he supplies question to get answered. On the other hand, supervisor takes interview to understand what knowledge trainee acquired after training. Thus he organizes interview date.

I: Okay, you were talking about employee productivity, how do you asses?

P: Well, Our company always very keen to measure employee productivity every year based on productivity ratio. In such cases, we identify output productivity and service productivity. Output productivity typically classified individual production and individual target level production. Service productivity typically classified individual service and individual target level service. The number of products an employee is produced in a given period of time and then averaged those to get output productivity. Similarly, The number of services an employee is provided to the client in a certain period of time.

I: Who sees the evaluation reports?

P: Managing director and head of each department.

I: If you don't evaluate training programmes within the company, do you consider that would be a useful thing to do, and why?

P: Yes, measuring whether training programme effectively. It's not only for measuring training effectiveness but also identifying for the future training need for the employee and also for design training programme.

I: Do you think that the existing process for the evaluation of training programmes within the company is appropriate?

P: If we consider resources, money, time and simplicity then the present assessment guidelines are appropriate. But to some extent it is not because we are not assessing trainee's performance or problem solving ability.

I: okay, performance? Is it employee performance or business performance?

P: Employee job performance.

I: When you assess training provision, do you use a particular theory or model as the basis of the assessment?

P: Sorry, I did not follow you.

I: Your company measure the success of training. For this purpose, any training evaluation model or theory do you use as the basis for the assessment? For example, Kirkpatrick's training evaluation model., 4 levels of measuring, such as, Reaction, learning, behaviour, result

P: We do use only reaction and learning, but not the model, as a whole

I: Why don't you use the complete model? If you kindly explain a bit detail, would be appreciated.

P: Kirkpatrick is well known.

I: For the training evaluation?

P: Yes, for the training evaluation. When I was doing PhD in the USA in 1998. I had an opportunity to attend one international research seminar. In that research seminar, he explained his idea on training evaluation theory. Truly academic scholar. Though his model is quite old fashion but simple and easy to understand. Actually, After I finished my PhD, I joined in this company as a GM at training and development. Indeed, I developed training programme, setting up goal and identifying training need analysis and evaluating training programme etc. In fact, we assess employee knowledge or skills. We don't assess behaviour or organisational performance due to complex and time consuming. Indeed, we have some limitation as we don't have proper management support, limited allotted budget for the evaluation and lack of expertise.

I: Do you think that training programmes can be measured based on any criterion that your company does not currently use?

P: Yes, One of the significant elements that lead an employee towards goal is drive. I strongly believe the drive may come from participating training. When employees are to be motivated to their works as a result work capacity goes up and their work satisfactions are dramatically gone up. Training enables employee to understand how their job fits into company's objectives. Training importantly helps get things on right way to enhance job satisfaction. As, employee better understand about how would they work to contribute the success of the company, this is why employee feel more confident and become more motivated towards job. As a result of being motivated the rate of work accuracy, the expected volume of work can be gained. So, it's a very simple equation that identify whether or not employee are motivated after the training session can easily evaluate the success of training programmes.

All organisations need to build up commitment of its workforces over time, therefore, many organisations offer both in house and off the job training. However, employee themselves also have to be willingness to make the effort needed to improve their moral values towards company.

I think, trainee becomes creative in problem solving and able doing things in a new way due to training. We have already provided training programmes through the Bangladesh institute of management (BIM) in order to build individual capability and problem solving skill at all levels of management. Training may leads to employees making decision; enhance problem solving ability and finally moving an employee towards personal as well as group goals. You can say employee is creative. When an employee makes a project plan and implements those with problem solving skills. No doubt, creative idea could be a potential factor as to for assessing the value of training programme for the employee if an appropriate measure can be identified. It is the ability to perceive the things in new ways and to generate a solution.

I: creative idea? It meant to be creativity, right?

P: Exactly.

I: Is there any other factors that can be used assessing training evaluation.

P: um, yes. You know training programmes is significantly useful in order to enhance employee job performance. Training put a learner forwards to control overall work and made a good progress towards the target which set for an employee. Clearly, quality of work gets improved after gathering new knowledge and skills. If an organisation use employee job performance to assess the success of training programme might get significant outcome about what a trainee acquires after the training programme.

I: Okay. Do you think that the factors that you have just identified might be more useful to use in evaluating training?

P: Yes of course, because those factors could be measured accurately, directly related to training objectives. It is also reflected employee work capacity and proficiency.

I: Those factors! You meant creative idea, employee performance?

P: Right and employee job satisfaction and motivation as well that I explained first.

I: Oh yes,

I: Okay, these are the factors might be used for the evaluation of training programme, but how could they be assessed in a different way?

P: Actually, line manager regularly just follow up whether they are able to work with different people maintaining positive atmosphere, supporting to peer and employee are doing work confidently and being satisfied. These are all how you could understand whether your employees are motivated and committed. Thought it is sometimes awful for the employee as they are observed regularly by the supervisor and line manger about how trainee are engaged in team work or some democratic behavioural activities, for example, support and cooperation to peers. You would know whether or not your employees are motivated to perform a certain duty, when you can ask colleagues, supervisor and employee to get review own self. Actually, in our yearly performance appraisal review we follow up employee job motivation by asking colleagues, supervisor, subordinates and the trainee. So called term 360 degree monitoring. Using a 360 degree review system management can easily identify which area has to improve. 360 degree performance review system is also used to monitor employee performance in our company. This method enables appraiser to collect a complete job performance and technical skills profile. Actually, we using this for the annual performance appraisal. Perhaps, it might use to assess employee performance. Rating scale might be a type of employee performance measurement techniques. In this technique, manager of human resource department arrange a grading system to assess such as technical skills and job performance. The different traits such as quality of work, knowledge of job, adaptability, productivity, cooperation, punctuality, motivation skills, leadership skills, and work skills competencies.

Company may organise creativity workshop session within the company to solve a problem with innovative idea individually. Sometimes brain storming workshop might also be organised in

order to stimulate idea by giving them different situation or problem to explain how to solve those differently or assigned some task to act on idea and also generation of ideas in different ways. Arranging brain storming session as to for sustainable idea generation where an employee can generate an idea for producing a more sustainable, innovative product. It might be individual or group. Employee can discuss with the experts if necessary

I: oh I see, do you have performance rating scale or annual performance appraisal form? Can I have one?

P: yes of course you can have.

I: Thanks

P: Yes, its a lunch time and after lunch I have a meeting at 2.30 pm. After the meeting, we could sit again.

I: Thanks a lot. Actually, these are all the questions. Would you like to ask me anything else about the research?

P: Not really. Oh, when the research report will be ready?

I: I m not pretty sure, hopefully would be come out in next two years. Would you like to get the research findings?

P: Yes, please

I: Okay, I will remember. Can I have your phone number, just in case? I might need any further suggestions.

P: There you go. It my business card. You will get all sorts of contact including mobile number.

I: Thanks. I may call you again if necessary.

P: You are well come.

I: Thanks for your good time.

P: That's okay. I enjoyed it.

I: Take care. Bye

## Appendix F: Sample of the training programme evaluation sheet used in company A4

Date:

Title:

Place of training:

Training instructor:

Guidance: Please indicate the level of agree with the statement listed below.

Rating: Strongly agree 5, agree 4, neutral 3, disagree 2, strongly disagree 1

S/L	Questions	Ratings				
		1	2	3	4	5
1	The objectives of the training were clearly defined.					
2	Participation was encouraged and satisfactory.					
3	The materials provided were useful.					
4	The training contents were relevant to the job.					
5	The contents were organised and well designed.					
6	The contents were easy to understand.					
7	The training contents will be useful in the workplace.					
8	The trainer was well prepared.					
9	Training instructor was knowledgeable about the topics.					
10	The training room and facilities were adequate and comfortable.					
11	The allotted time for the training was enough.					
12	The training objectives were met.					
13	The location of training is improved.					
14	Training methods is appropriate to enhance knowledge, skills and attitudes.					
15	The training course enhances or changes your knowledge, skills and attitudes.					
16	The intention to attend the training in the future.					
	Please provide comments/suggestions here.					

## Appendix G: Sample of the commitment profile questionnaire used in company A4

Date:

Title:

Guidance: Please indicate (with an X in the appropriate rating box) the level to which you agree with each statement listed below.

Ratings for the scale: Strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1

S/L	Questions	Ratings				
		1	2	3	4	5
1	I have clear understanding of my responsibilities and I feel able to maintain them.					
2	I am well motivated to perform my duties.					
3	Punctuality is most important to me in performing my duties regularly.					
4	Sincerity is most important to me in performing my duties regularly.					
5	I enjoy working in a group or team.					
6	I would leave the job if I could.					
7	I feel happy when I do a very good job.					
8	I feel maintenance of a regulatory framework for employees is important and I feel able to work within and maintain my performance within the current rules.					
9	I feel happy doing additional duties which are not included in my basic job responsibilities.					
10	I love helping my colleagues.					
	Please add any further comments/suggestions.					

## Appendix H: A list of open codes

The total 587 open codes initially emerged through the open coding process carried out between March 2015 and May 2015.

### List of open codes

Open Codes	
Attitude	Applying creative ideas
Additional duties	Accomplishing duties and responsibilities accurately
Attitude survey	Attend work on time
Attitude towards career	Arrange a grading system
Attitude towards work	A new concept to resolve individually
Apprenticeship	Analyse situations critically
Apprenticeship training session	Averaged input and output per day
Attending training	Ability to perform a technical task
Ability to adapt to changing situation	Ability to perform non-technical task
Absenteeism get down	Asking supervisor about performance
Absenteeism	Annual review of employee performance
Applying ideas	A solution with confidence
Applying new ideas	Anticipating and planning
Applying knowledge	Act on thinking process
Administering a feedback form	Actual sales compared with the desired sales
Adaptive performance	Arranging grading to assess technical skills
Adapt to a new environment	Arrange grading to assess job performance
Adaptability to work in different situation	Build up capacity
Adaptive to perform their jobs	Before delivery of training
Ability to perceive the things in a new way	Build-up moral values
Ability to generate a solution	Build up idea
Assess trainee reaction	Belief in own ability
Assessing training	Become versatile after attending training
Arrange a grading system	Become flexible
Allotted time	Become adaptable
Allotted time for the training	Behaviour to be difficult to assess
Arranging training	Building speed
Achieved work accuracy	Benchmark with scale
Asking a set of questions	Big context
A set of questionnaires	Better work with less effort
A questionnaire	Brain storming workshop
Asking peer, subordinate about motivation	Build up teamwork capacity
Asking supervisor about employee	Behavioural outcomes
Accomplish task more efficiently	Build up self-confidence
Act on ideas	Business policy and business nature
Based on different culture	Commitment survey
Bench marking	Commitment survey form
Beneficial	Direct outcomes of a training programme
Brainstorming	Discuss with employee
Brainstorming training session	Discuss with superior about positive behaviour
Being capable of punctual	Design 10 questions
Behavioural outcomes of a training programme	Design process
Corrective action	Discuss individually
Commitment	Direct observation by manager and/or supervisor
Cooperation	Drive towards goals and objectives
Confident working in a group	Discuss in the seminar
Collaboration	Doing Something exception
Cultural context	Doing things differently
Committed towards job	Decision and implementation
Compare with the actual target and expected target	During a solution with confidence
Class room training	During different solutions

Course content	During provide services to customer
Course materials	During communication and leadership activity
Creating performance	Discuss with supervisor, peers or colleague
Cognitive ability	Direct observe by manager/supervisor
Confident in the work	Design a training course
Choosing suitable method	Design a new product in a new market
Class room training session	Differently making a project plan
Creative in problem solving	During workshop training
Creative problem solving session	Design the course for future training
Creative ideas	Doing job out of the job description
Creating creative ideas	Doing things differently
Committed towards job	Doing something exception
Communication networks	Decision and implementation
Communication proficiency	During the production of goods
Create involvement culture	Direct observation
Creativity	Direct follow up
Create position new product in a market	During training
Company value	Do not feel panic in difficulties
Creating group performance	Distribute power and responsibility
Creative idea individually or group	Directing and coordinating
Creativity workshop session	Differences in intelligence
Creating citizenship behaviour	Discussion
Contextual factors	Enhance output of a specific task
Customer service productivity ratio	Employee work at their best for the company
Contributing to group decision	Easily testable, understandable
Enhancing career development	Follow up
Employee make decision	Follow up by manager or supervisor
Engaging in group work	Feel confident
Ensure on time delivery	Follow up employee job motivation
Employees believe they have value	Following and recording
Explain their thinking critically	Finding a process for appropriate design
Employee involvement	Feel confident after attending training
Employee Productivity	Financial reason
Extremely good, good, neutral, extremely bad and bad	Frames the training course
Enhancing job performance	Feedback
Employee performance review	Feedback form
Enhanced work efficiency	Finishing up less time
Employee commitment	Friendly working environment
Employee creativity	Following whether doing extra work
Extra duties done without any complaint	Finding a process for appropriate training programme design
Employee adaptability	Following how they are supportive
Employee engagement	Facing situations with confidence
Employee performance	Facing changing situations
Examining knowledge before and after	Facing any situation to solve different problems
Evaluating	Facing problems and difficult situations
Evaluating ideas	Feedback evaluation sheet
Exam method	Feedback from getting opinion
Enhance job satisfaction	Given encouragement
Engaging in decision	Goals and values
Enhancing work ability	Group decision
Enhance work capability	Group creativity workshop
Employee observation	Grading 10 different traits
Evaluate individual performance	Get immediate response
Employees get punctual or responsible	Generate ideas
Employee psychological connection to their work	Generation of idea in different way
Employee get motivated and satisfied	Get punctual
Enhanced job satisfaction	Group discussion
Efficacy development	Group workshop training
Extra duties without complaint	Group discussion with supervisor



Effective training programme	Highly expressive
Evaluation training programme	Honesty
Expertise not alert about particular assumption	Huge capital investment
Extra effort and additional time	Human resource department of the company
Expertise and awareness	Higher authority not willingness
Easy focusing reaction and learning	Individual workshop training
Easy to understand	Innovation
In the workplace	KPIs for services
Increases teamwork	Long description by written comment
Increased work speed	Learner skills
Individual discussion	Learning environment
Interview	Learn the technical work
Increased product efficiency	Lecture session
Increased work efficiency	Lecture base training session
Individual creativity workshop	Lack of HR support
Individual discussion	Location
Induction training session	Lecture note and books
Inside the company	Learning outcome validity
Inside individual workshop	Learning
Inside group workshop	Learning culture
In-house training	Lesson effectively
Identifying commitment profile	Lack of management support
Individual workshop	Line manager keep on watching
Interpersonal adaptability	Low absenteeism
Individual production	Loyalty
Individual service	Leadership styles
Individual target level production	Labour turnover
Individual target level service	Lack of awareness of using the model
Individual workshop for creative problem solving ability	Lesson effectively delivered
Inside the company training session	Lack of resources
Identify training needs analysis	Leadership training
Interview method	Leadership proficiency
Indirect observation	Leadership skills
Individual difference	Less interest to pay handsome payment to the evaluator
Job rotation	Managing crises situations
Job performance and technical skills	Managing changing situations
Job satisfaction	Monitoring system
KPIs for production	Monitoring"
Key performance indicators	Moving towards goal
Keep him under keen observation	Measuring output productivity
Knowledge sharing in the work shop	Motivated towards goal
Knowledge	Making decision and implementation
Keep looking for a new	Motivation to learn
KPIs for business operational functions	Motivation
KPIs for the performance appraisal	Motivated to support co-worker
KPIs for sales	Measuring services productivity
Keeping record every day	Managing work stress
KPIs for product and services	Manager directly watch teamwork and performance
Maintaining regularity	Organisational culture
Motivation and satisfaction	Opinion
Maintaining duty properly	On time delivery
Making things differently or exception	Outside company
Motivated to support co-worker	Output productivity
Making something new	Opportunity
Maintaining quality	Output productivity ratio
Maintaining behaviour record	Production increased by 5% within 4 months
Monitoring activities	Post-test about course content
Manager would be required to make a plan	Performance review system
Minimising customer complaints	Pre-and post-test

Making something new	Performing different job rotations successfully
Maintain daily personal record file	Participant selection
Making a project proposal in a group	Planning for the programme
Measure training course	Provided facilities
Maintaining good working relationship	Productivity ratio
Measuring reaction and behaviour	Product and service efficiency
Managing things confidently	Performs technical task
Minimising customer waiting times on calls	Performing additional work
Mangers and peers support	Performs non-technical task
Management support	Productive and efficient
Meeting place	Participation in decision
Maintaining good communication	Performing a task
Need to create and rely on flexible job descriptions	Programme evaluation form
Number of customer service calls dealt with	Punctuality
Non –technical task	Presentation
Needs and career development	Providing training
Opportunity equality distributed	Problem solving ability
Organisational factors	Project plan
Outside group workshop	Performing job
Observation	Punctuality
Observed teamwork and performance	Performance appraisal
Organisation system	Performance outcomes of a training programme
Opportunity for learning application	Perform job on time
Observe involvement	Performance outcomes
Observe job satisfaction	Problem solving training programme
Observe work performance and work speed	Productivity for a certain job
Organisation is democrat	Pre-test about course content
OCB	Production process with less effort
Outside workshop training session	Performing job at changing situation
Outside individual workshop	Policy and norms
Production efficiency	Scoring citizenship behaviour
Providing minimum effort	Setting up attainable and realistic goal to achieve within a time frame
Providing network facilities	Standard grading
Participants who need training	Supervisor takes interview
Perform without absence	Structured questions
Performing different job rotation	Semi-structured questions
Perform job effectively	Self-efficacy
Presentation has to be reflective	Self-confident
Providing information to the audience	Self-directed
Psychology test	Sincerity and loyalty
Planning, design and implementation process for training and development	Safety and protection
Production to be increased by 5% within months	Significant amount of payment
Quantified productivity	Seminar
Quality work	Supporting peer
Questionnaire	Solving critical task
Outside company	Satisfaction with training
Quality work	Solving technical task
Rely on own abilities	Solving task
Rely on flexible job description	Selection of participants
Rating job performance with scale	Shortage of capital budget
Reaction	Support
Reaction to the training course	Sincerity
Require resource materials	Stakeholder involvement
Response for the course materials	Supervisor watching
Rating scale	Supervisor observes
Responsibility	Skills
Responsible	Supervisor keep on watching
Resources person ability	Scoring
Reduce labour turnover	Service productivity

Response about the training course	Service productivity ratio
Regular follow up the activities	Solve a technical problem with creative idea in a group
Recording how team members are supportive, sociable	5 scales rating score
Record keeping	360 degree review
Regular record keeping	360 degree monitoring system
Regular observation	10 value of employee towards job
Response	Short and long term planning process for training inside the company
Recording of activities regular basis	Stimulate idea from different situation
Required significant amount of days to implement	Sales growth to be increased by 5%
Really lengthy	Sales rate to be increased by 5%.
Review annual performance	Supervisors and managers support
Supervisor will maintain diary	Service rate to be increased by 5% in a year
Satisfaction with trainers skill	Training and development department
Supporting peers in group work	Training programme outcomes
Structure	Training methods
Sales growth and rate to be increased by 5% in a year	Training programme success
Sound atmosphere	Training need identification
Something do different	Understanding ideas
Sharing knowledge in seminar	Understanding
Service rate in a given time	Use their skills at work
Specified on time delivery rate	Understand Psychology
Specified customer services rate per day	Using in the Performance appraisal sheet
Task proficiency	Voluntary assistance provided to others
Training effectiveness validity	Voluntary task
Target for production	Voluntary support
Target level productivity	Varieties of technical skills
The selection of participants	Varieties of nontechnical skills
Trainee reaction	Watching how team members maintaining harmony
Test	Watching behaviour
Training objectives validity	Work in cooperation
Training session	Watching how team members maintaining harmony
Training needs assessment	Watching cooperating teach other
The involvement in group work	Work efficiency
Training course	Work proficiency
Teambuilding	Work satisfaction
Teamwork	Workshop training
Team performance	Workshop training session
Technical tasks	When management proficiency was assessed
Training activities	Work for the company for long time
Training design	Work speed
Training planning	Work together as a family
Training objectives	Work for a group
Training resource person ability	Work for group goal
The additional work	Work in a small group
Thinking and doing	Work efficiency
Thinking critically	Work climate
Trainer skills	Work to contribute the success
Training resources	Wasting time
Target level output productivity rate	Watch employee activities
Target level service productivity rate	Watching for job satisfaction
Task performance	Watch democratic behavioural activities
Training location	Watching cooperation each other
Watching levels of cooperation with each other	Workshop session
Watch supporting peers	Workshop
Watching behaviour	Work effectively
Work for company interest	Work effectively in groups
Work during apprenticeship	Yes/ no answer
Work capacity with less effort	

## Appendix I: An example of a conditional relationship guide

Conditional relationship guides were used in this research to assist in the axial coding process. This provides a good example of the what, when, where, how, why and the consequences of the category labelled teambuilding.

Conditional relationship guide						
Code	What	When	Where	Why	How	Consequences
Teamwork	The process of working in a group supporting each other	During workshop training, Work in a small group, Supporting peers in a group work, Work together as a family, Work for group goal Work as apprenticeship	Inside the company, Group decision, In a team, Group workshop, Brain storming workshop, Workshop training session, Classroom training session, Meeting place	Build up capacity, Work together, Cooperation, Collaboration, Quality work	Engaging work in a group, Supporting peers, Sharing ideas, Contributing group decision, Creating group performance	Teambuilding

## Appendix J: Case-based memo

Evaluation training programme, Company Name: A4

Participant code: C5, Position: Chief executive officer (HRD)

Start: 12:00 am -1:25 pm

Date: 10/03/2015

A case based memo: A sequence of questions for a Training and evaluation through in depth interview

Participant C5, was talking about employee productivity, how do you asses?

*Well, Our company always very keen to measure employee productivity every year based on productivity ratio. In such cases, we identify output productivity and service productivity. Output productivity typically classified individual production and individual target level production. Service productivity typically classified individual service and individual target level service. The number of products an employee is produced in a given period of time and then averaged those to get output productivity. Similarly, The number of services an employee is provided to the client in a certain period of time.*

In my memo, I wrote;

Interviewee was talking about how to assess employee productivity. Interviewees were describing his employee productivity experience. The description was based on interviewee perspective. He explained employee productivity can be measured based on productivity ratio in two ways, such as output productivity and service productivity. I could see in his description that he expressed the properties of output productivity and service productivity of employee productivity. I noted that output productivity through productivity ratio. The dimension of the property of output productivity is individual production and individual target level production. The dimension of the property of service productivity is individual service and individual target level service. All of the properties of the employee productivity are subsumed under employee productivity. (End of memo).

## Appendix K: Trainee reaction

Example of the training reaction sheet used in company A3

Date:

Title:

Place of training:

Training instructor:

Guidance: Please indicate the level of agree with the statement listed below.

Rating: Strongly agree 5, agree 4, neutral 3, disagree 2, strongly disagree 1

S/L	Questions	Ratings				
		1	2	3	4	5
1	Did you like the training programme?					
2	Did you like the training course content?					
3	The objectives of the training were clearly defined.					
4	How were the course contents?					
5	The materials provided were useful.					
6	How the course content was relevant to the job?					
7	The training content was relevant to my job.					
8	The content was organised and well designed.					
9	The content was easy to understand.					
10	The training content will be useful in the workplace.					
11	The trainer was effective.					
12	The trainer was well prepared.					
13	The training instructor was knowledgeable about the topics.					
14	Was the trainer well skilled?					
15	The training room and facilities were adequate and comfortable.					
16	The allotted time for the training was enough.					
17	The training objectives were met your need.					
18	Participation was encouraged and satisfactory.					
19	The training time was sufficient.					
20	The training materials and contents enhance your knowledge, skills and attitudes.					
	Please provide any additional comments/suggestions here.					

## **Appendix L: Performance review procedure: Output productivity**

Company documents on calculating output productivity ratios were collected from companies A3, A6 and A16 which contributed to better understanding of output productivity ratio as described by respondents. Output productivity was also found in the secondary documents of company A6's performance review procedures.

The basic formula for calculating productivity is a ratio of outputs produced to the inputs used in production.  $\text{Productivity} = \text{Output} / \text{Input}$

The most common inputs are labour hours, capital and materials, whereas, sales or the amount of goods produced are common output units. Some of the most common productivity measurements are total output and sales productivity.

### **How to apply the formula**

Sometimes managers would want to measure individual productivity. For example, if he wants to calculate the productivity of one employee production, his labour hours will replace input in the formula, whereas, the amount of production would be his output.

**Example:** Mr. X works 40 hours per week and produced 4000 in his first week. Mr. Y works 25 hours a week and produced 3000. Though Mr. X has a higher production figure, Mr. Y appears to have a better output productivity level.

Mr. X:  $4000/40\text{hrs} = 100$  unit per hour

Mr. Y:  $3000/25\text{hrs} = 120$  unit per hour

With this formula, a manager can determine which of his employees are less productive and also find out why they are being less productive. He can then take the appropriate course of action.

## Appendix M: A list of categories, properties and dimensions

Category	Property	Dimension
<b>15 Categories identified by respondents</b>		
<b>A) Causal conditions</b>		
Training needs assessment	Design the course for future training	Training planning Training methods Participants selection
Training objectives validity	Training effectiveness validity	Learning outcome validity Behavioural outcomes Performance outcomes
<b>B) Context</b>		
Trainee reaction	Training course	Course content
		Trainer skills
		Course materials
	Training design	Training planning
		Training objectives
		Training methods
		Training activities
	Learning environment	Training location
		Allotted time
Provided facilities		
Learning	Knowledge	Applying ideas
		Understanding
		Evaluating ideas
	Skills	Technical task
		Non-technical task
	Attitudes	Self-efficacy Self-directed
Employee productivity	Output productivity	Individual production
		Individual target level production
	Service productivity	Individual service
		Individual target level service
Employee performance	Task performance	Task proficiency
		Communication proficiency
		Leadership proficiency
		Management proficiency
Employee commitment	Adaptive performance	Interpersonal adaptability
		Managing work stress
		Managing crises situations
	Teambuilding	Teamwork
		Work for group goal Work in a small group
	Punctuality	Sincerity
		Low absenteeism
		Responsibility
	OCB	Additional duties
Voluntary task		
Motivation	Job satisfaction	
	Employee involvement	
Employee creativity	Act on ideas	Creating creative idea
		Thinking and doing
	Do things differently	Making something new
		Doing something exception
	Problem solving ability	Project plan
		Decision and implementation
<b>C) Intervening condition</b>		
	Individual differences	Self-efficacy



Contextual factors		Motivation
		Attitude towards career
		Attitude towards work
		Cognitive ability
	Work climate	Support
		Opportunity
		Technology
	Organisational culture	Goals and value
		Policy and norms
		Stakeholders involvement
		Learning culture
		Structure
Leadership styles		
		Communication network
<b>D) Processes</b>		
Feedback	Questionnaire	Structured questions
		Semi-structured questions
		Evaluation sheet
	Discussion	Group discussion
		Individual Discussion
Test	Pre- and post-test	Exam method
		Interview method
		Presentation
	Observation	Direct observation
		Indirect observation
		Attitude survey
Productivity ratio	Quantified productivity	Output productivity ratio
		Service productivity ratio
	Target level productivity	Target level output productivity rate
		Target level service productivity rate
Performance appraisal	Monitoring system	360 degree monitoring system
		Rating scale
	Key performance indicators	KPIs for product
		KPIs for sales
		KPIs for Services
Monitoring	Observation	Direct observation
		Indirect observation
	Commitment survey	Psychology test
Creativity workshop session	Individual creativity workshop	Inside individual workshop
		Outside individual workshop
	Group creativity workshop	Inside group workshop
		Outside group workshop

## Appendix N: Pre- and post-test

Company documents from company A10 were obtained to better understand and support the primary data in relation to the pre- and post-test methods.

For each of the topics listed below, please check the box under the number that indicates your level of knowledge both **before** and **after** completing the course:

1 = None - have no knowledge of the content  
 2 = Low - know very little about the content  
 3 = Moderate - have basic knowledge; there is more to learn  
 4 = High - consider myself very knowledgeable

How do you rate your knowledge about the following topics:

	Knowledge <u>BEFORE</u> The Class				Knowledge <u>AFTER</u> The Class			
	1	2	3	4	1	2	3	4
<b>ANATOMY OF AN OFFICE VISIT</b>								
Q1. The names and roles of professionals in the health care system.								
Q2. The different types of health care encounters where patients and health care professionals meet.								
Q3. Various health care settings and their utilization.								

## Appendix O: Annual performance appraisal (rating scale) used in company A4

Date:

Title:

Name of employee:

Guidance: Please indicate (with an X in the appropriate rating box) the level to which you agree with each statement listed below.

Ratings for the scale: Consistently exceed expectations = 5, Often exceed expectations = 4, Meets expectations = 3, Some improvement needed = 2, Major improvement needed = 1

Performance	Major improvement needed (1)	Some improvement needed (2)	Meets expectations (3)	Often exceed expectations (4)	Consistently exceed expectations (5)	Grand total
Work capability						
Communication skills						
Leadership ability						
Managerial ability						
Managing situations						
Adaptability						
Managing work stress						
Dependability						
Planning						
Organising						
Rating totals						

Employee comments:

Signature : Date:

Manager comments :

Signature : Date:

## Appendix P: Reflective coding matrix

A reflective coding matrix was used to build a more detailed description of a training programme evaluation model and to contribute to the development of the emerging theory. The following example illustrated the relationship between the core category and each subcategory.

Reflective coding matrix						
Core category	Evaluation training programme					
<b>Strategies/ Processes</b>	Feedback	Test	Productivity ratio	Performance appraisal	Monitoring	Creativity workshop session
<b>Properties</b> (Characteristics of categories)	Training courses	Knowledge	Output productivity	Task performance	Teambuilding	Act on ideas
<b>Dimensions</b> (Property location on continuum)	Course content, Trainer skills, Course materials	Applying ideas, Understanding Evaluating	Individual production, Individual target level production	Task proficiency, Communication proficiency, Leadership proficiency, Management proficiency	Teamwork, Work for group goal, Work in a small group	Creating creative idea, Thinking and doing
<b>Contexts</b>	Reaction	Learning	Employee productivity	Employee performance	Employee commitment	Employee creativity
<b>Mode of understanding the consequences</b> (outcomes)	Immediate outcomes of a training programme	Direct outcomes of a training programme	Performance outcomes of a training programme	Performance outcomes of a training programme	Behavioural outcomes of a training programme	Performance outcomes of a training programme