UNIVERSITY OF SOUTHERN QUEENSLAND

# SUSTAINING PROACTIVE MOTIVATION FOR NON-MANDATORY PROFESSIONAL DEVELOPMENT: BUILDING SELF-DETERMINED EMPLOYEES

A Dissertation submitted by

Kim S. Sankey, BSc (Hons), MSc

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## Abstract

This dissertation examined the motivations energising employees' participation in non-mandatory professional development (PD) provided within their work organisation using a proactive motivation framework (Parker, Bindl, & Strauss, 2010) and a Self-Determination Theory (Deci & Ryan, 1985) perspective. Two studies were conducted using a mixed-method design. Study 1 was conducted in a specific organisation and involved both quantitative and qualitative data. Both aspects of this study informed the development of the quantitative Study 2 conducted in an organisation non-specific sample.

The quantitative aspect of both Study 1 and Study 2 provided support for a structural model of employees' motivation to participate in non-mandatory PD within their work organisation as a proactive, self-determined process that includes transfer implementation intentions as a pre-participation commitment toward change and readiness to transfer what is learned. Study 1 demonstrated that employees' Transfer Implementation Intentions were energised by autonomous motivation for participation in non-mandatory PD and the intrinsic benefits envisioned from participation. As an organisational context variable, positive work environment directly influenced each aspect of the model.

From the Study 1 qualitative findings it was concluded that organisational commitment to employee development, useful to job, useful to career, and prosocial benefits were important variables to include in the structural model tested in Study 2. Study 2 demonstrated that employees' transfer implementation intentions were influenced by both intrinsic benefits and prosocial benefits. Autonomous motivation demonstrated only an indirect influence on transfer implementation intentions. An organisational commitment to development influenced employees' perceptions of

useful to career and useful to job. Useful to job influenced autonomous motivation and prosocial benefits, while useful to career influenced intrinsic benefits.

Together, the results of the two studies highlight the importance of autonomous motivation, intrinsic and prosocial goals, and the provision of organisational support to facilitate employees' proactive involvement in non-mandatory PD and their intention to transfer what is learned. These influences are important, as participation and the use of what is learned are paramount to the success of non-mandatory PD activities (Goldstein & Ford, 2002).

## Certification of Dissertation

I certify that the ideas, experimental work, results, analyses, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

_____ _____

Kim S. Sankey Date

ENDORSEMENT

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Prof. M. Anthony Machin (Supervisor) Date

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Emeritus Prof. Gerard J. Fogarty (Supervisor) Date

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## List of Conference Presentations

Sankey, K. & Machin, M. A. (July 2010). *The role of climate for transfer and intrinsic benefits in explaining employees' motivation to attend voluntary professional development activities*. Paper presented at the meeting of the 27th International Congress of Applied Psychology. Melbourne, Australia.

Sankey, K. & Machin, M. A. (April 2013). *Core proactive motivational processes in continuing professional development across groups*. Peer reviewed poster presentation presented at the meeting of Society for Industrial and Organizational Psychology, 28th Annual Conference. Houston, Texas.

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## List of Acronyms

| | |
|---|---|
| AIC | Akaike Information Criteria |
| CFA | Confirmatory Factor Analysis |
| CFI | Comparative fit Index |
| CI | Confidence Interval |
| CTQ | Climate for Transfer Questionnaire |
| HR | Human Resources |
| ICT | Information Communication Technology |
| LTS | Learning and Teaching Support |
| LTSU | Learning and Teaching Support Unit |
| MECVI | Maximum Likelihood Estimation Expected Cross-Validation Index |
| MI | Modification Index |
| ML | Maximum Likelihood |
| PD | Professional Development |
| RMSEA | Root Mean Square Error of Approximation |
| SDT | Self-Determination Theory |
| SEM | Structural Equation Modelling |
| SIMS | Situational Motivation Scale |
| SRMR | Standardised Root Mean Square Residual |

# Chapter 1 - Introduction

This chapter provides an overview of the research included in this dissertation. A brief rationale for the research is first presented. This rationale is elaborated in the literature review in Chapter 2. The general aim of the research and the research questions are then presented, followed by an outline of the research design and an overview of the research samples.

## 1.1 Research Rationale

When participation in professional development (PD) is mandated within an organisation or directed by a supervisor, employees have no choice, they are required to participate. When non-mandatory however, employees have more discretion, with the decision to participate in PD largely self-initiated. Initial questions related to the choice to pursue activities are therefore particularly salient (Beier & Kanfer, 2010). This research project focussed on the motivations energising employees' proactive participation in non-mandatory PD.

From an organisational perspective, the provision of non-mandatory PD can be seen as a proactive investment of both human and financial resources to facilitate the achievement of strategic outcomes. From an employee perspective, participation also involves a proactive investment; at a minimum, an investment of time and energy (Feldman & Ng, 2008). This proactive investment can be viewed as future-focussed action to bring about change in capabilities that contribute to desired future goals or aspirations (Parker, Bindl, & Strauss, 2010). However, to be effective, what is learned needs to be applied in the workplace. Therefore, the planning, or intention, to implement strategies to facilitate the use of what is learned in non-mandatory PD in the workplace can be seen as a critically important aspect of this proactive investment.

According to Self-Determination Theory (SDT; Deci & Ryan, 1985, 2000) this investment is likely to be undertaken for autonomous reasons, with self-initiated participation facilitated by "a sense of volition and having the experience of choice" (Gagné & Deci, 2005, p. 333). The goals concordant with this investment are likely to be intrinsic. Motivation in the non-mandatory context therefore, in the first instance, relates to the reasons *why* employees participate (Deci & Ryan, 2000).

Training and development related organisational context factors are likely to influence this proactive motivation process. Potentially, these organisational context factors can be proactively managed to create environments that are more conducive to participation in non-mandatory PD, as well as the transfer of what is learned to the workplace (Blume, Ford, Baldwin, & Huang, 2010). From an SDT perspective, such an environment is autonomy-supportive, facilitating the satisfaction of the basic psychological needs for autonomy, competence, and relatedness within the workplace (Deci & Ryan, 1985; 2000). When PD is non-mandatory, with participation largely self-initiated by employees themselves, an understanding of the motivational influences energising this proactive investment in PD from the perspective of employees who participate is therefore important. These influences may impact on the overall effectiveness of non-mandatory PD (Hicks & Klimoski, 1987).

### 1.2 Aim and Research Questions

The aim of this dissertation was to examine employees' perceptions about participation in non-mandatory PD provided within their work organisation as a domain (i.e., not specific activities). This examination was undertaken within a proactive motivation framework (Parker et al., 2010) incorporating an SDT (Deci & Ryan, 1985) perspective. With a focus on the self-initiated efforts of employees,

these perspectives may provide the best combination to inform the development of interventions to create an environment that achieves sustained participation in non-mandatory PD, as well as performance outcomes.

Within this framework, four general questions guided the current research. Two questions were quantitative in nature, two were qualitative. The research therefore consisted of a mixed-method design, with priority given to the quantitative aspect. The research design is outlined in section 1.3.

The two quantitative research questions related to the quantitative aspect of Study 1 (outlined in Chapter 3) and Study 2 (outlined in Chapter 5). The specific hypotheses related to these research questions are outlined in section 3.3 of Chapter 3 for Study 1 and in section 5.3 of Chapter 5 for Study 2. The research questions were:

1. Does the proactive, self-determined motivational process energising employees' participation in non-mandatory PD influence their intention to implement strategies that may facilitate the application of what they learn to their work, as a proactive plan toward change and an initial step in the transfer process?
2. Do employees' perceptions of training- and development-related aspects of the organisational context influence the proactive, self-determined motivational processes energising their participation in non-mandatory PD?

The third and fourth research questions informed the development of open-ended questions used in the qualitative aspect of Study 1. The questions related to employees' views about the usefulness of non-mandatory PD to job and career. The qualitative aspect of Study 1 is reported in Chapter 4. The two questions were:

3. What are employees' views about the transfer of what they learn in non-mandatory PD to their work? Specifically, from an SDT (Deci & Ryan, 1985) perspective, their views about the contribution of PD activities in terms of being in control of their work (autonomy), connection with others in the workplace (relatedness), and confidence in their ability to do their job (competence)?
4. What are the views of employees at a group level (accessed across five focus groups) about the benefits derived from participation in non-mandatory PD?

**1.3 Outline of the Research Design**

This research consisted of two studies. With different types of research questions (see section 1.2), the two studies were undertaken using a mixed-method design. The design involved a concurrent-embedded and sequential quantitative process. This strategy facilitated a broader understanding of participants' perceptions of different aspects of their participation in non-mandatory PD than would be provided by the quantitative analysis alone (Creswell & Plano Clark, 2011). A flow chart of the research design is depicted in Figure 1.1.

The concurrent-embedded aspect of the research design was undertaken in Study 1 and involved both quantitative and qualitative data. Data were collected using a cross-sectional online Professional Development survey, followed by a series of five focus groups. Priority was given to the quantitative data. The qualitative aspect provided supplementary information that complemented the quantitative results of Study 1 and informed the development of Study 2. The qualitative data were therefore embedded within the quantitative data (Creswell & Plano Clark,

2011). The two aspects of the concurrent-embedded design are labelled as "Study 1 - QUANTITATIVE" and "Study 1 - Qualitative" in Figure 1.1.

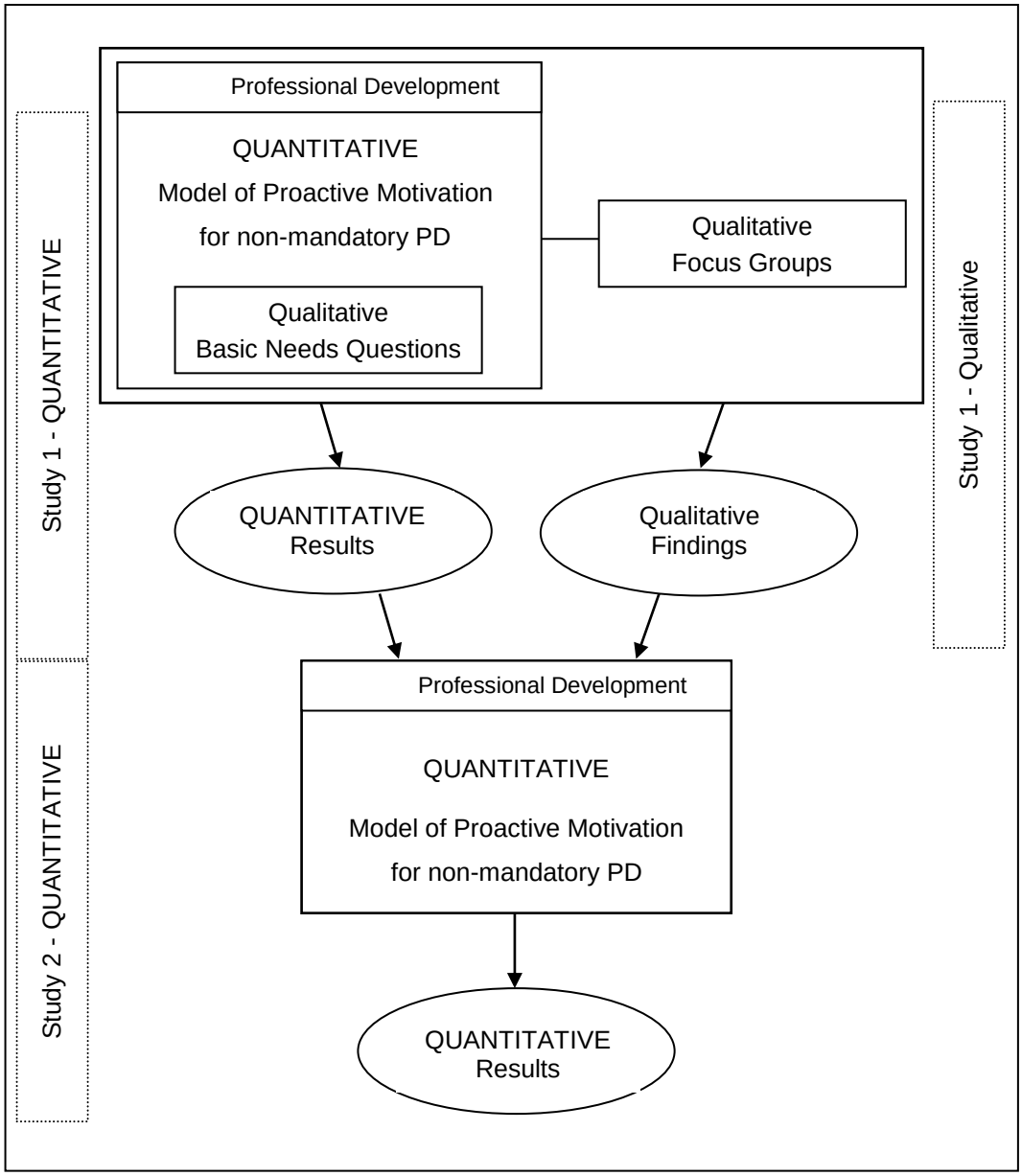


*Figure 1.1.* Flow chart of research design involving two studies with a combined concurrent-embedded and sequential quantitative process. Model developed from Creswell and Plano Clark (2011).

Within a specific organisation, the quantitative aspect of Study 1 examined a structural regression model of factors relating to employees' proactive motivation to participate in non-mandatory PD. The qualitative aspect of the study was undertaken

to allow participants to express their views, in their own words, about different aspects of their participation in non-mandatory PD in terms of the usefulness of these activities to their work and career. The quantitative and qualitative data were analysed separately. The quantitative study is presented in Chapter 3 and the qualitative study is presented in Chapter 4.

Both data types subsequently informed the development of Study 2. This represented the sequential aspect of the research design, labelled as "Study 2 - QUANTITATIVE" in Figure 1.1. Study 2 examined a structural regression model of factors relating to employees' proactive participation in non-mandatory PD that was informed by the results of both the quantitative and qualitative aspects of Study 1. Study 2 is discussed in Chapter 5.

### 1.4 Overview of the Research Samples

A total of 439 employees of a tertiary education organisation participated in the quantitative aspect of Study 1. The study was conducted as part of a wider review of PD provided to employees across the organisation. Of the employees who participated in the study, 307 also provided their views to three basic needs qualitative questions, while 46 employees also participated in one of five focus groups.

Study 2 was conducted in a heterogeneous (organisation non-specific) sample of 204 employees who were recruited apart from their work organisations. The demographic details of the samples and procedures undertaken in the quantitative aspect of Study 1 and Study 2 are presented in Chapter 3 and 5 respectively. The demographic details of the samples and procedures undertaken in the qualitative aspect of Study 1 are presented in Chapter 4.

# Chapter 2 – Literature Review

An increasingly globalised economy, accompanied by rapid technological advances and changes in the nature of work and work roles (Mathieu & Tesluk, 2010) requires that organisations and their employees be increasingly flexible and adaptable. The speed of these changes has led to an "unprecedented emphasis on the vital role of continuous learning and employee development in organizational success" (Salas, Weaver, & Shuffler, 2012, p. 330).

Many organisations therefore offer continuous learning opportunities to employees (Feldman & Ng, 2012). In this context, continuous learning may be viewed as a deliberate and sustained effort by the organisation to develop employees' capabilities, as well as those of the organisation as a whole (Lee & Bruvold, 2003). The range of opportunities offered to employees may vary in terms of content and delivery (e.g., seminar/workshop to tertiary qualification) and provider (internal, external). The knowledge, skills, and competencies gained by employees through participation in continuous learning activities provide organisations an advantage that is not easily imitated by competitors (Noe & Colquitt, 2002).

## 2.1 Importance of Transfer to Effectiveness Outcomes

The provision of work-related training and career development opportunities within organisations involves considerable human resource and financial investments from those organisations (Mathieu, Tannenbaum, & Salas, 1992). With estimates from as little as 10% up to 50% of training investments reported to translate into changes in work behaviour (Burke & Hutchins, 2007), human resource providers within organisations are increasingly responsible to ensure the effectiveness of these opportunities (Noe & Colquitt, 2002).

For training and development to be effective it has to have an impact (Noe & Colquitt, 2002) that leads to meaningful changes in work performance (Baldwin, Ford, & Blume, 2009). From an organisational perspective, this impact ultimately involves a contribution to the core competencies and strategic outcomes of the organisation (Kontoghiorghes, 2002; Mathieu & Martineau, 1997).

These organisational investments are therefore effective only to the extent that employees learn during activities and transfer what is learned back to the workplace (Machin, 2002; Quinones, 1997). The emphasis on transfer of training is an example of a situation where the organisation can proactively develop employees in order to achieve sustainable performance. However, employees also anticipate that these activities will result in change, with improvement in job performance and performance outcomes (Aguinis & Kraiger, 2009).

Viewed as a process, the successful transfer of what is learned during training and development is determined by what occurs prior to, during, and after participation in activities (Burke & Hutchins, 2008; Machin, 2002). While the provision of training and development by the organisation may be viewed as a proactive investment in strategic outcomes, from an employee perspective participation also requires an investment; at a minimum an investment of time and energy (Feldman & Ng, 2008). With personal decisions to be made at each stage of the transfer process, employees also have a proactive role to play (Baldwin et al., 2009).

Using Baldwin and Ford's (1988) model of transfer as the basis of a review of the empirical transfer of training literature, Grossman and Salas (2011) identified a number of training inputs demonstrating consistent relationships with training output (learning and retention) and conditions of transfer (generalisation and maintenance)

factors. These inputs were considered crucial to the transfer process and included trainee characteristic (cognitive ability, self-efficacy, motivation, perceived utility of training), training design (behavioural modelling, error management, and realistic training environment), and work environment (transfer climate, support, opportunity to perform, and follow-up learning opportunities) factors. Grossman and Salas suggested that while it was impractical to incorporate all of these inputs within future research models, an expansion of the knowledge about the importance of each of the factors, for example before, within, and after training, was warranted.

At each stage of the transfer process motivation plays a critical (Grossman & Salas, 2011) and qualitatively different role (Beier & Kanfer, 2010). Before training, motivation influences the choice to pursue, initiate, and respond to development opportunities. During training, employees' self-regulatory processes and the environment influence the intensity and persistence of attentional effort toward learning and performance. After training, motivation to transfer influences the initiation and use of what is learned in the work context (Beier & Kanfer, 2010).

Salas and Cannon-Bowers (2001) proposed that a continued and deeper understanding of the multi-faceted nature of training motivation was warranted. More specifically, Maurer and Tarulli (1994) recommended that researchers continue to examine relevant constructs important to participation in voluntary activities. In line with the recommendations of these authors, this research program attempted to extend the research related to the motivations (including perceived personal utility) surrounding employees' choice to pursue participation in continuous training and development. Specifically, the research examined employees' perceptions surrounding their sustained participation in non-mandatory professional development (PD), or work-related training and career development provided within their work

organisation (as a domain, not specific activities). This examination was undertaken within a proactive motivation framework (Parker, Bindl, & Strauss, 2010) incorporating a Self-Determination Theory (SDT; Deci & Ryan, 1985) perspective. With a focus on the self-initiated efforts of employees, these perspectives may provide the best combination to create an environment that achieves sustained participation in non-mandatory PD and performance outcomes.

### 2.2 Proactive Motivation Framework

Proactive behaviour can be defined as "self-directed and future-focussed action in an organization in which the individual aims to bring about change" (Bindl & Parker, 2010, p. 568). This can include change to the situation (e.g., introducing new work methods, influencing organizational strategy) and/or change within the individual themselves (e.g., learning new skills to cope with future demands). This definition emphasises the taking control of a situation in anticipation of future events (Bindl & Parker, 2010).

Parker et al. (2010) proposed a Model of Proactive Motivation Process and Antecedents that captures the common features of the diverse literature on proactivity (Bindl, Parker, Totterdell, & Hagger-Johnson, 2012). The model incorporates a goal-driven process approach to proactive behaviour that involves employees' "self-initiated efforts to bring about change in the work environment and/or oneself to achieve a different future" (Parker et al., 2010, p. 827). An outline of the model is depicted in Figure 2.1.

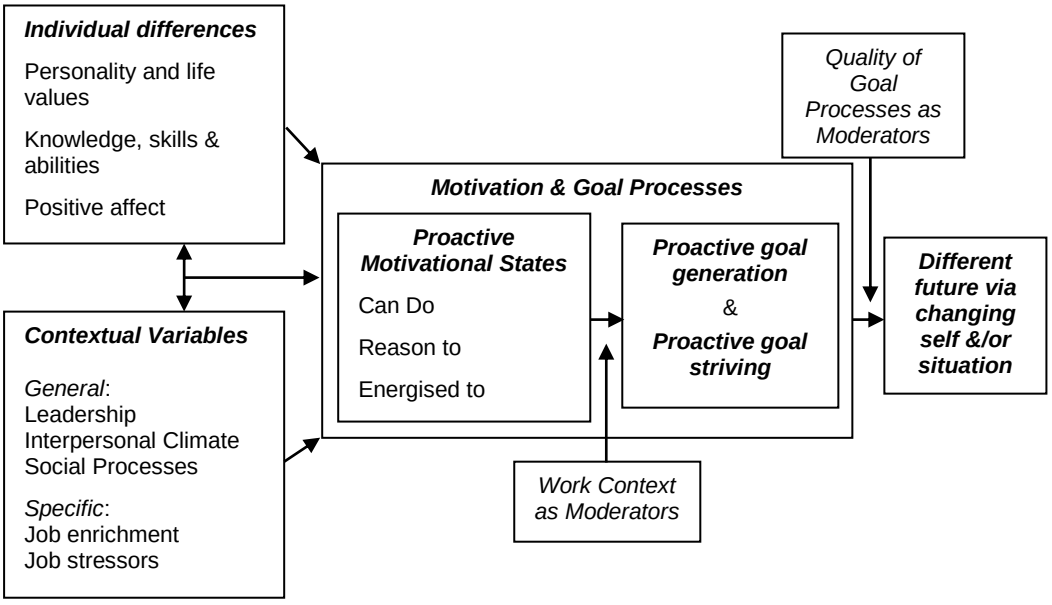


*Figure 2.1*. Outline of the Model of Proactive Motivation Process and Antecedents. From "Making Things Happen: A Model of Proactive Motivation" by S. Parker, U. K. Bindl, and K. Strauss, 2010, *Journal of Management, 36*(4), p. 830. Copyright 2010 by the Authors. Depicted with permission.

A basic premise of the proactive motivation model is that employees play an active role in shaping and influencing their environment (Parker et al., 2010). The core of the model therefore relates to the individual-level motivation and goal processes that influence the achievement of change leading to a different future. This goal-driven process involves distinct, yet inter-related motivational systems including proactive goal generation and proactive goal striving (Chen & Kanfer, 2006; Kanfer & Ackerman, 1989). Change leading to a different future is dependent on individuals engaging in both goal generation and goal striving processes.

Proactive goal generation provide a "roadmap for action" (Chen & Kanfer, 2006, p.249). The goal generation process is described as one in which desired future states or goals are anticipated and strategies planned to reach those goals (Parker et al., 2010). Proactive goals can vary on two dimensions; the future the goal

aims to bring about and whether the self or the situation is being changed. The future envisioned by employees could involve goals directed toward achieving a better personal fit within the work environment (proactive person-environment fit), improving the organisation's internal functioning (proactive work behaviour), or enhancing the organisation's strategic fit (proactive strategic behaviour) (Parker et al., 2010).

Drawing on the work of Kanfer and Ackerman (1989), Parker et al. (2010) described proactive goal striving as the behavioural (enacting) and psychological (reflecting) mechanisms that facilitate the purposeful undertaking and monitoring of day-to-day behaviour to accomplish proactive goals. The quality of the goal generation process (e.g., specificity of the goals, emotional regulation) is also seen as influencing the degree to which a different future and change are achieved (Parker et al., 2010).

Three types of motivational states (can do, reason to, and energised to) are proposed to influence both the goal generation and goal striving process. *Can do* motivation involves employee perceptions of self-efficacy, sense of control, and the perceived cost of action. *Reason to* motivation relates to *why* an employee is proactive, with reasons based in autonomous motivational states. *Energised to* motivation relates to activated positive affective states that prompt proactive goal processes. Both work environment and individual difference antecedents can influence proactive action indirectly through influence on motivational states. These antecedents vary according to the envisioned future that employees perceive and the locus of change of the proactive goal (Parker et al., 2010).

Employees largely self-initiated participation in non-mandatory PD can be seen as a future-focussed step to gain additional knowledge or skills to be applied in

the workplace. Such a proactive autonomous step toward change in personal capabilities constitutes proactive person-environment fit behaviour (Parker & Collins, 2010). This behaviour facilitates "greater compatibility between one's own attributes and the organizational environment" (Parker et al., 2010, p. 832).

Employees may also envision that non-mandatory activities will facilitate future change and contribute to a different future, in terms of the personal benefits derived from participation. Non-mandatory PD participation itself can be seen as a planned activity to gain knowledge or skills to facilitate change and a different future. However, achievement of these outcomes depends on what is learned being applied in the workplace. The planning of, or intention to implement strategies to facilitate the use of what is learned is therefore also a critically important aspect of the proactive motivation change process.

Individuals act proactively because such action is important to the fulfilment of "responsibilities, goals, or aspirations" (Parker, Williams, & Turner, 2006, p. 638). Research has demonstrated that employees have expectations that participation in training and development provided by their work organisation will be instrumental to their own personal development and lead to change in future personal and potentially financial and career outcomes (Birdi, Allan, & Warr, 1997; Nordhaug, 1989).

Hurtz and Williams (2009) conducted a repeated-measures field study that investigated the influence of a number of contextual and motivational factors on employees' ongoing participation in voluntary employee development across four organisations in the north-eastern and western parts of the United States. Data were collected on two occasions, with an initial data collection and a three month follow-up (total $N = 427$). While a recognised availability of activities exerted the strongest effect on participation rates in the study, expectancy perceptions related to valued

outcomes also impacted participation. Specifically, employees who felt that development activities would be enjoyable, worthwhile, and instrumental in bringing about desired outcomes (personal, job, and career related) also generally indicated that they would participate in future activities.

Maurer and colleagues (Maurer & Tarulli, 1994; Maurer, Weiss, & Barbeite, 2003) found differential results in relation to valued outcomes from participation in training and development opportunities. Overall results suggested that intrinsic benefits were more predictive of employees' attitude and interest in participation than were extrinsic benefits. This research is described more fully in the intrinsic and extrinsic benefits section of this chapter, where it will be argued that from an SDT perspective (Deci, Koestner, & Ryan, 1999; Ryan & Deci, 2002) the largely self-initiated nature of participation in non-mandatory PD is concordant with aspirations for personal growth in the first instance.

By focusing on the active role played by employees in changing and shaping their own futures, the proactive goal generation process and antecedents aspects of the Model of Proactive Motivation Process and Antecedents (Parker et al., 2010) provided a useful framework for examining employees' largely self-initiated and sustained participation in non-mandatory PD. The model facilitated an examination of employees' autonomous *reason to* participate, what they believed participation in PD would help them achieve and how their perceptions influenced the intention to implement strategies to facilitate the use of what they learned after participation.

### 2.3 Self-Determination Theory

Self-Determination Theory (Deci & Ryan, 1985) is concerned with understanding behaviours that are autonomous and volitional (Deci & Ryan, 2008). The value of the SDT approach is twofold: it is based on somewhat different

assumptions about human nature while it also provides an alternative, yet complementary, approach to work motivation (Sheldon, Turban, Brown, Barrick, & Judge, 2003).

According to SDT (Deci & Ryan, 1985), individuals are, by nature, inherently active and therefore proactively initiate engagement with their external environments (i.e., they have an organismic growth tendency). The energising basis of this proactive engagement is intrinsic motivation. Motivation concerns "what moves people to act, think, and develop" (Deci & Ryan, 2008a, p. 14). Individuals also have a developmental tendency to integrate and organise psychic material (organismic integration). This integration involves a process of internalising information such as values, attitudes, contingencies, and knowledge from the external environment and integrating it into the regulation of internal forces, such as drives and emotions (Deci & Ryan, 2012). To be self-determined therefore means "to experience a sense of choice in initiating and regulating one's own actions" (Deci, Connell, & Ryan, 1989, p. 580).

**2.3.1 Autonomous and controlled motivations.** Moving beyond the classic intrinsic-extrinsic motivation dichotomy (Burke & Hutchins, 2007; Deci & Ryan, 2008a; Eccles & Wigfield, 2002; Vallerand & Ratelle, 2002), SDT distinguishes different types of extrinsic motivation (regulation) according to the degree to which individuals integrate and internalise external contingencies. This process is influenced by the functional significance or psychological meaning individuals give to these external inputs (Deci & Ryan, 1985). The focus of SDT is therefore the quality of motivation, with a central distinction made between autonomous and controlled types (Deci & Ryan, 2008a).

Autonomous motivation comprises intrinsic motivation and fully-internalised extrinsic regulations. *Intrinsic motivation* is the most autonomous type of motivation and as such reflects "the inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn" (Ryan & Deci, 2000b, p.70). When intrinsically motivated, individuals undertake an activity because it is, in itself, interesting and enjoyable (Ryan & Deci, 2000b).

When an activity is not considered inherently interesting, individuals can still participate in a relatively autonomous way when an extrinsic regulation is well-internalised. Well-internalised extrinsic regulation theoretically includes both identified and integrated types (Ryan & Deci, 2000b). Deci and Ryan (2008a) described *integrated regulation* as representing "the fullest type of internalization…the means through which extrinsically motivated behaviours become truly autonomous or self-determined" (p. 16). As such this regulation represents the ideal internalisation, with the value of an activity integrated into the sense of self (yet is still externally controlled) (Deci & Ryan, 2008b).

While less autonomous than intrinsic motivation, *identified regulation* is still relatively autonomous (Carver & Baird, 1998). Identified regulation involves individuals accepting the importance of an externally regulated behaviour for themselves and therefore accepting it as their own. That is, "they identify with the value of the activity and willingly accept responsibilty for regulating the behaviour" (Deci & Ryan, 2008a, p. 16). Therefore, individuals do not feel pressured or controlled, rather they engage in the behaviour with a greater sense of autonomy (Deci & Ryan, 2008a). In line with previous studies (e.g., Sheldon & Elliot, 1998; Vansteenkiste, Sierens, Soenens, Luyckz, & Lens, 2009; Vansteenkiste, Simons,

Lens, Sheldon, & Deci, 2004) the current research operationalised autonomous motivation using intrinsic motivation and identified regulation.

From the SDT perspective, controlled motivation comprises external regulation and introjected regulation. *External regulation* refers to "the performance of an activity in order to attain some separable outcome" (Ryan & Deci, 2000b, p.71). External regulation represents the most controlled and therefore least autonomous type of extrinsic motivation in which individuals feel pressured to perform an action to avoid punishment, obtain rewards, or to meet external contingencies (Gagné & Deci, 2005; Vansteenkiste et al., 2009). Representing a form of interpersonal control, external regulation is similar to the extrinsic motivation classically described in the intrinsic-extrinsic framework (Gagné & Deci, 2005; Ryan & Deci, 2002).

Emanating from a sense of external pressure, *introjected regulations* are also relatively controlled, however, in an intrapersonal sense (Ryan & Deci, 2000b). The regulation of actions is more internalised than in external regulations but the value of actions is not fully accepted. Experiencing a sense of pressure, individuals feel compelled to undertake action to avoid feelings of guilt or anxiety and to maintain a positive self-image (Guay, Senecal, Gauthier, & Fernet, 2003; Ryan & Deci, 2002). Introjected regulation, though less controlled than external regulation, is still controlled (Carver & Baird, 1998).

With the proactive, self-initiated nature of participation in non-mandatory PD, employees' decisions are not expected to be controlled in the sense that they feel pressured to engage in these activities to maintain or enhance employment status and bolster a sense of self-worth within the organisation (Vansteenkiste, Simons, Lens, Sheldon et al., 2004). Rather, participation in non-mandatory PD is seen as

relatively autonomous and therefore the most important benefits are likely to be intrinsic.

**2.3.2 Quality of goal pursuits.** Self-determination theory also differentiates the quality of the goals individuals work toward, in terms of intrinsic and extrinsic pursuits. Intrinsic goals or aspirations are seen as congruent with growth and self-actualising tendencies (Kasser & Ryan, 1996). The intrinsic goals individuals work toward include personal growth, community contributions, health, and affiliation pursuits (Vansteenkiste, Lens, & Deci, 2006). These goals are seen as satisfying in their own right, fulfilling the psychological needs for autonomy, competence, and relatedness. Extrinsic goals or aspirations are not satisfying in their own right but are undertaken to obtain external expressions of worth, such as tangible rewards (e.g., money, fame) or praise (Kasser & Ryan, 1996; Vansteenkiste et al., 2006).

Research has demonstrated that a focus on intrinsic goals is associated with more favourable outcomes than a focus on extrinsic goals. For example, Kasser and Ryan (1996) demonstrated that intrinsic goals were associated with psychological well-being outcomes, such as self-actualisation and vitality, while extrinsic goals were negatively related to well-being outcomes and more positively related to psychological distress. Vansteenkiste, Simons, Lens, Sheldon, et al. (2004) also demonstrated that intrinsic goals were more conducive to learning and test performance outcomes than were extrinsic goals. Sheldon, Ryan, Deci, and Kasser, (2004) further demonstrated that higher levels of well-being were associated with individuals who pursued intrinsic rather than extrinsic goals for autonomous rather than controlled reasons across a series of three studies. The authors concluded that both the content of the goals that individuals pursue and the reason that they pursue them make unique contributions to well-being outcomes.

**2.3.3 Basic psychological needs.** From an SDT perspective, the inherent satisfaction gained from autonomously motivated behaviour is derived from experiences of competence and autonomy and, in some cases, from relatedness. The functional significance or psychological meaning individuals give to external inputs can support autonomy and promote competence and relatedness (be *informational*) or pressure the individual to think, feel, or behave in specific ways (be *controlling*). Experiencing an input as *informational* facilitates self-determination, while experiencing an input as *controlling* reduces self-determination (Deci et al, 1989; Deci & Ryan, 1985). As basic human psychological needs, autonomy, competence, and relatedness are therefore seen to represent "one very important energizer of behavior" (Deci & Ryan, 2012, p.101).

Autonomy refers to being "the perceived origin or source of one's own behavior" (Ryan & Deci, 2002, p. 8). The concept of autonomy is distinct from the concept of independence, or not relying on others. Individuals can both act autonomously and rely on others. Conversely, individuals can be independent from others and act with the experience of choice (Deci & Ryan, 2008a). For example, the non-mandatory and largely self-initiated nature of PD can be seen as an aspect of autonomy-support that facilitates employees' sense of choice in initiating their own behaviour. However, the employee also relies on the organisation to provide the PD.

Competence refers to the feeling of being "effective in one's ongoing interactions with the social environment and experiencing opportunities to exercise and express one's capacities" (Ryan & Deci, 2002, p. 7). The provision of non-mandatory PD can therefore be seen as an opportunity that facilitates the enhancement of skills and capabilities for a future sense of confidence and effectiveness when what is learned is applied in the workplace.

Relatedness refers to "feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one's community" (Ryan & Deci, 2002, p. 7). Provided within the work organisation, non-mandatory PD participation can also be seen as facilitating a sense of connectedness with co-workers, both during activities and potentially within the workplace.

**2.3.4 Autonomy-supportive work environment.** Supportive conditions elicit and maintain autonomous motivation rather than subdue and diminish it (Ryan & Deci, 2000a). Social contexts that facilitate the satisfaction of the need for autonomy, competence, and relatedness promote optimal psychological well-being and effective functioning. However, social contexts that thwart the satisfaction of these needs contribute to less than optimal psychological well-being and functioning (Ryan & Deci, 2000c; 2002). From the SDT perspective, when individuals experience satisfaction of the needs for relatedness and competence in relation to an activity, they will tend to internalise its value and regulation. Satisfaction of the need for autonomy however, is also required to internalise the value and regulation of an activity so that undertaking that activity is experienced as autonomous (Gagné & Deci, 2005).

Autonomy-support can be viewed within two general categories (Gagné & Deci, 2005). The first category relates to specific factors in the social context and has a number of components, such as giving as much choice as possible, taking an individual's perspective on a situation, providing a meaningful rationale when choice-provision is not possible, and encouraging self-initiation (Deci, Eghrari, Patrick, & Leone, 1994; Sheldon et al., 2003). The non-mandatory and employee-

initiated nature of participation in non-mandatory PD is an example of an autonomy-supportive work environment.

The second category of autonomy-support relates to the interpersonal ambience of the social context (Deci & Ryan, 1987; Gagné & Deci, 2005). This category can be seen as equivalent to the organisational climate and managers' interpersonal styles (Gagné & Deci, 2005). The PD-related aspects of the organisational context, including a positive transfer climate and organisational supports for development, are encompassed within this second category.

Research has supported the relationship between basic need satisfaction and psychological well-being and effective functioning in the workplace (Ilardi, Leone, Kasser, & Ryan, 1993) and across cultures (Deci et al., 2001). Baard, Deci and Ryan (2004) tested an SDT-based model of work performance and well-being across employees of two organisations, including an operations centre of a major United States banking corporation ($N$ = 59) and a major banking investment firm ($N$ = 698). Results showed that performance on the job (as measured by recent performance evaluation ratings) and psychological adjustment (anxiety-depression, well-being and vitality) outcomes were influenced by the satisfaction of employees' need for competence, autonomy, and relatedness on the job. Basic need satisfaction was influenced by managers being perceived as autonomy-supportive and by employees' autonomous causality orientations. In relation to basic psychological needs, the authors concluded that the concept of intrinsic needs was useful for studying both performance and adjustment in the workplace (Baard et al., 2004).

In an eLearning setting, Roca and Gagné (2008) examined the influence of autonomy-support, competence, and relatedness on e-Learning continuance among 166 employees in four international agencies of the United Nations. Participants

who had completed at least one e-learning course offered by the United Nations Systems Staff College accessed and completed an online survey via a link that was forwarded by email. Results showed that employees were more willing to continue using the e-Learning system when they felt autonomous and competent because these basic needs influenced their perceptions of the usefulness of the e-learning and their perceived playfulness (cognitive spontaneity), which in turn influenced their intention to continue usage of the IT system. Additionally, when workers felt connected and supported (perceived relatedness) by co-workers, they used the system for the enjoyment they gained from it.

This discussion of SDT has shown that the quality of motivation is critical for supporting employees' participation in non-mandatory PD. The influence of the work environment is best captured in the degree to which individuals are supported to behave autonomously. Further discussion about the components of the organisational climate that facilitate autonomous motivation will follow in section 2.7 after considering research related to autonomous motivation and goal processes in the context of PD.

**2.4 Motivation for Participation in PD and Choice**

Motivation in general can be defined as an individual being moved to do something (Eccles & Wigfield, 2002; Ryan & Deci, 2000a); having an intention to act (Meyer, Becker, & Vandenberghe, 2004). Motivation has largely been conceptualised as a resource allocation that influences the direction (choice and intention), intensity (proportion of personal resources, such as time and effort allocated), and persistence (length of time over which resources are allocated) of behaviour. The persistence of behaviour integrates both the direction of behaviour and the temporal aspect of intensity (Kanfer, 2012; Kanfer & Ackerman, 1989).

Motivation produces effort that is directed toward important personal goals. The persistence of that effort is associated with the perceived difficulty and importance of the goal to the individual (Mitchell & Daniels, 2003).

When PD is mandated, the decision to participate is employer-initiated and therefore external to the employee. The experience is one of "having to" participate (Deci & Ryan, 1987, p. 1025). In the mandatory context questions related to motivation therefore relate to employees' *readiness* (Noe, 1986), or *how willing* they are to engage in activities and to transfer what they learn to the workplace (Feldman & Ng, 2012). With a within-training focus, motivation to learn the content of activities has therefore been "perhaps the most straightforward predictor of the likelihood that a person will participate in training and development activities" (Beier & Kanfer, 2010, p.69).

When non-mandatory (and therefore not a condition of continued employment), however, the decision to participate is largely at the discretion of employees themselves according to their perceived needs and desires (Hicks & Klimoski, 1987; Nikandrou, Brinia, & Bereri, 2009). The effectiveness of non-mandatory activities therefore depends on employees' proactive and self-determined pursuit of participation in PD (Wang & Wang, 2004). Questions related to motivation in the non-mandatory context therefore, in the first instance, concern the reasons *why* (Deci & Ryan, 2000) employees participate.

While largely at the discretion of employees themselves, participation in non-mandatory PD provided within a work organisation is not without organisational input (Feldman & Ng, 2008). For example, making available and promoting PD within the organisation is likely to frame its importance and value to the organisation (Hurtz & Williams, 2009; Quinones, 1997; Tai, 2006). Attendance is also likely to

require supervisor approval and release from work duties (Wang & Wang, 2004). Rather than completely voluntary, the decision to participate in non-mandatory PD is therefore better viewed as self-initiated by employees themselves (Feldman & Ng, 2008). When self-initiated, participation is likely to be endorsed by the employee and experienced as an action for which they are responsible (Deci & Ryan, 1987).

When participation is self-initiated by employees themselves the motivational processes related to the choice to pursue, initiate, and respond to activities (Beier & Kanfer, 2010) are particularly salient. Such a decision can be seen as autonomous, with employees participating "with a sense of volition and having the experience of choice" (Gagné & Deci, 2005, p. 333). If employees choose not to participate, questions related to motivation during learning and motivation to transfer what is learned to the workplace are moot (Kanfer, 2012). An understanding of the motivational influences surrounding this first and critical decision (Kanfer, 2012) from the perspective of employees who participate in these activities is therefore important as it may impact on the overall effectiveness of training interventions (Hicks & Klimoski, 1987).

**2.4.1 Aspects of choice.** Two significant aspects of choice can be seen to surround employees' participation in non-mandatory PD. The first aspect relates to the actual decision to participate and selection of activities. However, the quality of the reason why employees choose to participate, as well as the goals or aspirations they envision will come from participation, are also an important aspect of proactive choice (Deci & Ryan, 2000). This quality of reason forms the second aspect of choice that surrounds employees' participation in non-mandatory PD.

In relation to the first aspect of choice, voluntary participation in training has been widely acknowledged as a behavioural manifestation of motivation for training

(Beier & Kanfer, 2010). The primary consideration within this aspect of choice to participate in PD therefore, from a cognitive, decision-making perspective, relates to employees' selection of activities from available options (Mitchell & Daniels, 2003).

Expectancy-value theories (see Feather, 1982; Vroom, 1964), with an emphasis on choice and effort have been considered useful conceptualisations in the study of training motivation (Baldwin & Ford, 1988; Noe, 1986) and the prediction of the decision to participate in training and development (Beier & Kanfer, 2010). Based on Vroom's (1964) valence, instrumentality, and expectancy theory (VIE), expectancy-value theories relate to the personal decisions individuals make about "whether, where, and how to invest their time and energy" (Grant & Shin, 2012, p. 506). Motivational force toward training is seen to be stronger when trainees value the outcomes of training (valence), perceive that their performance in training will lead to valued outcomes (instrumentality), and that the effort applied in training leads to performance (effort) (Beier & Kanfer, 2010).

Expectancy-value theories therefore relate to individual's beliefs about their ability to attain particular outcomes (Ryan, Sheldon, Kasser, & Deci, 1996). As such, Mathieu and Martineau (1997) suggested that the VIE approach best captures the contextual aspects of trainees' perceptions of the overall utility of performing well in training.

With this emphasis on goal choice related to expected outcomes, expectancy-value theory is seen to be most useful for predicting behaviour when that behaviour is under employees' control, contingent rewards are provided consistently in the work environment, the associations between behaviour and outcomes are unambiguous, and there is a limited time-delay between both the behaviour and the receipt of outcomes (Colquitt, LePine, & Noe, 2000; Mitchell, 1982). Liberman and

Trope (1996) demonstrated that an interest in (or the desirability of) a future activity is more salient to individual decision making for a more distal activity (within 12 months), while the how (feasibility related to difficulty, effort-performance expectancies; self-efficacy) of an activity is more salient for more proximal decisions (tomorrow, next week).

Van Eerde and Thierry (1996) conducted a meta-analysis across 77 studies examining the relationship between VIE variables and work-related criteria (performance, effort, intention, preferences, and choice) which found that the variance explained in these outcomes was less than expected. Attitudinal criteria (intention and preference) were more strongly related than behavioural criteria (performance, effort, and choice) to VIE models and components. Vroom (1964) himself also noted that not all of the variance in the desirability (valence) of activities could necessarily be explained by expected relationships to ends, stating that "some things are desired or abhorred 'for their own sake'" (p. 19).

Employees' participation in non-mandatory PD has been presented as a proactive pursuit of skills and/or knowledge that is largely self-initiated by employees themselves. The association between work goals and participation in these activities is potentially ambiguous, with participation not explicitly linked to rewards (Griffin, Neal, & Parker, 2007; Parker et al., 2010). In such a context, the second aspect of choice surrounding employees' participation, the *reason to* or *why* aspect, cannot be taken for granted.

Research related to the provision of employee choice of training and development activities has demonstrated associations between the provision of choice and the SDT perspective. When employees make a choice to participate in development activities provided within their work organisation, rather than being

assigned to activities, they are more likely to be motivated to learn the content of activities (Hicks & Klimoski, 1987), see development as instrumental to the gaining of intrinsic rewards (Guerrero & Sire, 2001), and have higher expectations of job-related outcomes from successful completion of an activity (Mathieu et al., 1992).

Baldwin, Magjuka, and Loher (1991) conducted an empirical test of the effects of trainees' choice of training on pre-training motivation (motivation to learn the content of training) and learning outcomes (open-ended and short-answer questions). The study was conducted among 207 students of Indiana University who enrolled to attend a 2-hour, practical business skills training module (at no cost to trainees). Trainees knew only that the module was similar to the type of managerial training typically conducted for employees in major corporations. Participants included traditional full-time students, full-time working people attending class part-time, and adult education students.

The Baldwin et al. (1991) study training session was conducted on-campus on nine occasions. On each occasion participants were randomly assigned to one of three choice conditions: (a) no choice of training; (b) choice of training, but choice not received; and (c) choice of training, with choice received. Participants assigned to choice conditions had pre-indicated their training preferences prior to the session. Choice selections had been manipulated according to a list of 30 training options ranked by pilot study participants. From the ranked pilot options, an average-ranked performance appraisal option had been selected as the focus of the training. For the choice-not-received condition, choices included three highly ranked pilot options and the average-ranked performance appraisal option. For the choice-received condition options included three lowly ranked pilot options and the average-ranked performance appraisal option. Participants in the no-choice condition were told that

they would be attending a training module on performance appraisal. The influence of cognitive ability on motivation and learning outcomes was controlled to avoid potential confounds.

After controlling for cognitive ability, results of the Baldwin et al. (1991) study indicated that trainees given a choice of training had greater motivation to learn prior to entering training than those who were not provided a choice or made a choice which they did not receive. Those who did not receive their choice of training experienced significantly lower motivation to learn and learning outcomes than those who received their choice or were assigned to training without choice.

Baldwin et al. (1991) concluded that motivation to learn can be enhanced by providing trainees the choice of training content, but only when the training of choice is received. This result was seen as theoretically consistent with intrinsic motivation theory, with choice likely to increase feelings of mastery and self-determination. From an SDT perspective (Deci & Ryan, 1985), the provision of choice and acknowledgment of employee's preferences are aspects of an autonomy-supportive work environment. Autonomy-support facilitates a sense of self-initiation, satisfying the inherent need for autonomy and leading to more positive performance and well-being outcomes (Deci & Ryan, 2000).

Results of research conducted by Facteau, Dobbins, Russell, Ladd, and Kudisch (1995) also suggested that trainees' attitude toward training was more favourable when choice to attend was available. The Facteau et al. study examined the influence of general beliefs about training on pre-training motivation (motivation to attend and learn from the training program) and perceived training transfer among 967 managers and supervisors of a south-eastern state government agency in the

United States. The study was conducted as part of a large scale training needs assessment related to the agency management training curriculum.

The results of the Facteau et al. (1995) study suggested that managers who reported higher levels of pre-training motivation also perceived more intrinsic reasons to attend training, had a more favourable view of the agency's training efforts, and perceived higher levels of training transfer than those who reported lower levels of pre-training motivation. While related ($r$ = .30), extrinsic incentives did not significantly influence pre-training motivation. Compliance (attendance in order to satisfy organisational mandates) and pre-training motivation were negatively related. This result was also seen by Facteau et al. to be consistent with early work within SDT (Deci & Ryan, 1985) related to the negative effects of extrinsic incentives on intrinsic motivation (Deci, 1971; Deci et al., 1999).

In relation to intention to transfer training to the workplace, early work by Baldwin and Magjuka (1991) found that post-training intentions to transfer among 193 employees who attended a variety of training programs in the engineering department of a major Midwestern manufacturing organisation were greater when trainees had received information prior to the training event (communication from peers, supervisor, training department, and/or instructor), recognised that they would be accountable to their supervisor in terms of follow-up activity (preparing a report or summary of the training, meeting with supervisor, attending a follow-up assessment), and perceived the training as mandatory rather than voluntary.

In relation to the unexpected association between intention to transfer and the mandatory status of training, Baldwin and Magjuka (1991) suggested that "making training voluntary may inadvertently convey a signal of relative unimportance to trainees already faced with a myriad of other organizational mandates" (p. 34). The

compulsory nature of the training thereby framed the training by communicating its importance (Beier & Kanfer, 2010).

Further work by Tsai and Tai (2003) found that the perceived importance of training mediated the relationship between training assignment (mandatory, voluntary) and training motivation (motivation to learn). The sample included 184 employees of the banking industry in Northern Taiwan who attended government-sponsored training programs. While cultural influences may have contributed to the results of this study (Beier & Kanfer, 2010), the work of Baldwin and Magjuka (1991) was supported in regard to the importance of training when perceived as mandatory. As noted by Mathieu and Martineau (1997), when lack of choice is perceived as a manipulative force trainees are likely to have little motivation to learn. However, when perceived as an organisational commitment to build skills and knowledge they are likely to be highly motivated to learn. Mathieu and Martineau proposed that an "accurate deciphering of the effects of choice on trainees' motivation requires an analysis of how participants perceive their enrolment in the program" (Mathieu & Martineau, 1997, p. 211).

**2.5 Autonomous Motivation for Participation in PD**

Proactive behaviours such as self-initiated participation in PD activities, when not explicitly linked to external incentives such as work goals or reward, requires a strong internal motivational force (Griffin et al., 2007; Parker et al., 2010). Such behaviour "often stems out of personally held beliefs about what is important, or a strong ownership" (Parker et al., 2010, p. 833).

The term motivation is "often used in work and organizational psychology to encompass all the process by which individuals formulate and execute established goals" (Kanfer, 2012, p. 460). The role of individuals' motivation to learn,

motivation to transfer, and self-efficacy has been central to research related to participation in training and development, with the view that increases in these individual characteristics will translate into increased participation rates (Noe, Wilk, Mullen, & Wanek, 1997).

Motivation to learn has been seen as the most straightforward predictor of the likelihood that an employee will participate in training and development (Mathieu & Martineau, 1997; Beier & Kanfer, 2010). Motivation to learn was defined by Noe (1986) as "a specific desire of the trainee to learn the content of the training program" (p. 473). Research has demonstrated that employees' motivation to learn is related to voluntary participation in both job- and non-job related training and development activities (Birdi et al., 1997), as well as non-mandatory work sponsored activities offered on- and off-site (Noe & Wilk, 1993).

Previous studies have also highlighted the largely positive relationship between the provision of choice of training and employees' motivation to learn, as well as learning outcomes (Baldwin et al., 1991; Facteau et al., 1995, Hicks & Klimoski, 1987). More specifically, a meta-analytic summary of the training motivation literature undertaken by Colquitt et al. (2000) identified the direct influence of motivation to learn on four different training outcomes using the classification scheme for evaluating learning proposed by Kraiger, Ford, and Salas (1993). The meta-analysis demonstrated that motivation to learn was positively and significantly ($p = < .05$) related to declarative knowledge (cognitive outcome; $\beta = .39$), skill acquisition (skill-based outcome; $\beta = .22$), post-training self-efficacy (motivational outcome; $\beta = .22$), and reactions to training (attitudinal outcome; $\beta = .45$). Together, empirical and meta-analytic results support the influence of

motivation to learn on the effectiveness of training outcomes at each stage of the training process.

The concept of motivation to learn was extended by Warr and Bunce (1995), who distinguished more distal (general) and proximal (specific) types of motivation for participation in training activities (Baldwin et al., 2009). Warr and Bunce examined the influence of the general attitude of favourability toward training (e.g., "Generally, work-related training is worthwhile"), as well as more specific motivation about a training program (e.g., "I like learning about the sort of subjects this training program deals with"), on trainees overall learning scores. The study was conducted among 106 junior managers (93% male) of a British organisation who undertook a five-module open learning managerial program over a four-month timeframe. As an open learning program trainees were able to study at their own pace and undertake assessment when they felt they were ready, within the four-month timeframe.

Warr and Bunce (1995) found that both distal general motivation and proximal specific motivation measured prior to the commencement of the program were significantly associated with trainees' post-training learning score (general, $r = .33$; specific, $r = .25$). Results of the second step of an hierarchical multiple regression analysis, after controlling for trainee age, education, job tenure, and management experience in the first step, demonstrated a significant influence of general motivation on learning score ($\beta = .31$), while specific motivation did not demonstrate a significant influence ($\beta = .01$).

In relation to the unexpected non-significant result for the association between specific motivation and learning, Warr and Bunce (1995) concluded that with multiple modules in the training program the measure used may not have been

specific enough, as it focussed on the program as a whole. The authors proposed that module-specific measures of motivation may have yielded a more substantial association. This proposal is consistent with the results of other research (Baldwin et al., 2009; Mathieu & Martineau, 1997; Quinones, 1995) which has demonstrated that motivation to learn the content of a specific training event influenced learning outcomes from that event.

Importantly, the research conducted by Warr and Bunce (1995) also highlighted the relevance of more general intrinsic attitudes when considering employees' perceptions related to participation in training and development. That is, employees "need to want to" engage in training and development (Bindl & Parker, 2010, p. 572). In situations where activities are offered on a non-mandatory basis as continuous learning opportunities, employees are required to be proactive about their participation. A compelling reason is therefore likely to be required for participation to occur (Deci & Ryan, 2012; Parker et al., 2010).

With an emphasis on the fundamental "motivation versus no motivation" distinction, the empirical research related to training motivation has primarily focussed on the strength (quantity) of individual's intentions and motivation toward training and development (Sheldon et al., 2003). For example, the quantity of trainee's motivation for training has largely been predicted by the strength of trainees' intention or desire to learn the content of training. Therefore providing an indication of "how motivated" trainees are toward training (Mathieu & Martineau, 1997, p. 196). Another emphasis has been what trainees "will do" in terms of a desire to apply effort during training (Noe, 1986; Tracey, Hinkin, Tannenbaum, & Mathieu, 2001).

While training research has generally focussed on the overall strength of motivation for training, SDT (Deci & Ryan, 1985) has also emphasised the quality (type) of motivation that individuals experience as an intention to act. Within SDT, the strength of motivation is likely to yield desired outcomes only when the quality of that motivation is more autonomous in nature than controlled (Vansteenkiste et al., 2009).

From an SDT perspective, the largely self-initiated choice to participate in non-mandatory PD represents intentional behaviour that is autonomously regulated rather than controlled (Deci & Ryan, 1987). Autonomous and controlled motivations involve different reasons for action (Ryan & Connell, 1989). When autonomous, the intention to act is self-endorsed, or intrinsic to the self. Autonomously motivated behaviour is therefore regulated with a sense of volition and choice (Deci & Ryan, 2008a).

Involving the experience of psychological freedom, autonomously motivated behaviour has an internal locus of causality, with actions undertaken due to personal interest and importance (Vansteenkiste, Niemiec, & Soenens, 2010). It is therefore sustainable (i.e., enduring) (Stone, Deci, & Ryan, 2009). When controlled, the intention to act is perceived to be influenced by pressure and demand from forces external to the self (Deci & Ryan, 2008a). Involving the experience of coercion to think, feel, or behave in particular ways, the behaviour has an external locus of causality (Vansteenkiste et al., 2010).

While both controlled and autonomous types of motivation reflect different reasons for undertaking action (Deci & Ryan, 2008a), autonomous motivation is associated with more positive performance, relational, and well-being outcomes (Deci & Ryan, 2008b). Autonomous motivation has been associated with greater

persistence and achievement in various settings, such as education (Guay, Ratelle, & Chanal, 2008; Koestner & Losier, 2002; Vallerand & Bissonnette, 1992), work (Gagné & Deci, 2005; Lam & Gurland, 2008), pro-environmental (Pelletier, 2002), and sport (Frederick-Recascino, 2002).

In relation to life goals, Sheldon and Kasser (1995) showed that autonomous motivation (i.e., an intrinsic interest, identified importance) for personal everyday strivings were generally associated with the pursuit of intrinsic possible futures (e.g., self-acceptance and personal growth, intimacy and friendship, societal contribution) across two samples of university students ($N$ = 161 and $N$ = 113 respectively). More controlled motivation (i.e., external or introjected regulations) for everyday strivings were generally associated with the pursuit of extrinsic possible futures (e.g., financial success, fame and recognition, physical appearance). The extent to which participants' strivings helped to bring about intrinsic futures was also correlated with more positive psychological well-being outcomes (e.g., self-actualisation, positive affect, self-esteem) than the extent to which strivings helped to bring about extrinsic futures.

More specifically, in relation to both learning and work contexts, prior research has demonstrated that autonomous motivation leads to more positive behavioural and commitment outcomes than controlled motivation (Gagné & Deci, 2005; Gagné, 2009). For example, in the education domain (high school and college levels) autonomous motivation has been associated with active information processing (Koestner & Losier, 2002) and sustained goal-directed effort and subsequent goal attainment (Sheldon & Elliot, 1998).

In the work domain, autonomous motivations have been associated with greater organisational commitment (Gagné, Chemolli, Forest, & Koestner, 2008),

job satisfaction (Bono & Judge, 2003; Vansteenkiste et al., 2008), work dedication and job vitality (Vansteenkiste et al., 2008), as well as personal accomplishment (feelings of competence and productivity) and lower levels of burnout (Fernet, Guay, & Senècal, 2004). In the training and development literature in particular, autonomous motivation for transfer has shown a positive influence on employees' active intentions to transfer training to the workplace three months post-training (Gegenfurtner, Vauras, Gruber, & Festner, 2010).

A search of the literature did not locate studies that considered autonomous motivation in relation to participation in non-mandatory training and development within an organisational setting more specifically, highlighting the need for research in this area. In both Study 1 and Study 2 which will be reported in Chapters 3 and 5 respectively, autonomous motivation was expected to influence the intrinsic benefits employees envisioned to come from participation in non-mandatory PD and their transfer implementation intentions, as a proactive plan toward change and an initial step in the transfer of training process (Foxon, 1994). The qualitative aspect of Study 1, reported in Chapter 4, had somewhat different foci, providing supplementary information about employees' participation in non-mandatory PD which complemented the quantitative aspect of Study 1 and informed the development of Study 2.

## 2.6 Proactive PD goal generation

**2.6.1 Envisioned future: Intrinsic and extrinsic benefits.** Autonomous motivation represents the proactive reason *why* employees sustain participation in non-mandatory PD. However, employees also have "expectations as to what personal returns they will receive from participating in training and development" (Nordhaug, 1989, p. 386). Individuals are "generative, creative, proactive, and

reflective, not just reactive" (Bandura, 2001, p. 4). As such, they are "motivated by the foresight of goals, not just the hindsight of shortfalls" (Latham, 2007, p. 207).

As a major factor in the motivational literature (Mitchell & Daniels, 2003) individuals' goals and aspirations represent another important aspect of the *why* of proactive behaviour (Bindl & Parker, 2010). The personal aspirations employees envision will come from participation in non-mandatory PD represent a contribution toward change in terms of a different future.

The utility-value of an activity has been described within expectancy-value theory as a component of task-value, along with the intrinsic-value, attainment-value, and the cost of undertaking an activity (Eccles & Wigfield, 2002). Encompassing these four components, task-value represents individual's beliefs about how well they will perform on upcoming tasks in the immediate or longer-term future (Eccles & Wigfield, 2002, p. 120). Within this conceptualisation, utility-value refers to the perceived instrumentality of an activity to attaining present and future goals. These goals have largely related to the gaining of extrinsic or tangible outcomes (Eccles & Wigfield, 2002; Vansteenkiste, Simons, Lens, Soenens et al., 2004).

Research within the workplace training and development literature has largely supported the relationship between the expectation that the knowledge and skills gained in development activities will lead to extrinsic outcomes, such as promotion, salary increases, or prestige and more positive attitudes toward training and development opportunities (Colquitt et al., 2000; Mathieu et al., 1992; Noe & Schmitt, 1986; Tharenou, 2001). This relationship is not surprising, as employees get paid for the work that they do and training and development activities are designed to facilitate performance and potentially, career outcomes.

While extrinsic outcomes are expected within the work environment, the future-focussed and self-initiated nature of proactive behaviour also makes room for intentional action toward more intrinsic goals and aspirations (Strauss & Parker, forthcoming). Training- and development-related studies have demonstrated that intrinsic benefits are also important considerations for employees when pursuing participation in development opportunities. Nordhaug (1989) ascertained the perceptions of the rewards employed Norwegian adults ($N$ = 263) associated with participation in personnel training provided within their work firm. During personal interviews in their homes, participants were asked whether or not their participation in the training had contributed to a list of 12 potential outcomes. An exploratory factor analysis conducted using participants' dichotomous responses to each of the potential outcomes identified three different types of benefits employees derived from participation in personnel training. These benefits related to the development of learning motivation (e.g., desire to participate more in training, desire to learn more in general), career development (e.g., promotion, more interesting work assignments), and psychosocial development (self-actualisation, increased self-confidence, new friends).

Research conducted by Birdi et al. (1997) in a sample of predominantly male (95%) manufacturing employees ($N$ = 1,798) demonstrated that the type of benefits reported to come from participation in activities attended over the previous 12 months varied across activity type. Results of regression analyses ($N$ = 1,245) after controlling for demographic variables showed that participation in job-focussed development activities supported by the organisation, whether voluntary or required and attended on work-time or on employees' own time, were associated with reported job-related benefits (e.g., increased job performance, promotability). A

learning orientation (i.e., greater interest in the acquisition of knowledge and skills and openness to new ideas) was associated with participation in development activities in which learning was the explicit aim; including non-job-related activities attended on employees own time. Career planning activities, whether on employees' own time or on work time, were also associated with job-related benefits and a learning orientation.

Further to the work of Nordhaug (1989), studies have demonstrated differential results for the relationships between intrinsic-psychosocial benefits and extrinsic tangible benefits and employees' involvement in training and development activity For example, Maurer and Tarulli (1994) found that employees' perceived personal-psychosocial benefits would come from participation in both in-house and external voluntary activities provided as part of a corporation's development program, while extrinsic benefits were perceived to come from in-house voluntary activities provided in that program. Across three distinct types of organisations, Noe and Wilk (1993) found that more respondents felt personal, rather than job or career benefits, would come from participation in development activities sponsored by their organisation and offered on- and off-site.

Maurer et al. (2003) conducted a comprehensive multi-wave study of employees' involvement in learning and development activities (a composite variable including on-the-job, off-the-job, voluntary, required, skill-building, feedback-seeking, and career-planning behaviours). Participants included 800 employees from across the United States work force recruited using random digit telephone dialling. Participants were paid to complete self-report questionnaires at three time-points.

As part of this study, Maurer et al. (2003) examined the direct influence of perceived intrinsic-psychosocial benefits (interesting or stimulating outcomes, reaching potential, and becoming a better person), extrinsic benefits (tangible pay and career outcomes), and self-efficacy for development as direct motivational/affective influences on employees' attitudes toward development. The indirect influence of these variables on intention to participate in the next 12 months and subsequent self-reported participation in activities over the previous 12 months were also examined. The motivational/affective variables (including attitudes and interest toward development and intention to participate) were measured one month after an initial data collection, with self-reported participation measured 12 months later.

Maurer et al. (2003) found support for the direct influence of intrinsic-psychosocial benefits on employees' attitudes and interest toward development ($\beta$ = .43). In contrast, the direct influence of extrinsic benefits on employees' attitude toward development was not strong ($\beta$ = -.08). Results also showed that both absolute self-efficacy and self-efficacy relative to other people directly influenced employees' attitudes toward development ($\beta$ = .37 and $\beta$ = .27 respectively). Attitudes toward development directly influenced participants intentions to participate ($\beta$ = .25). Intentions to participate subsequently influenced participation in development ($\beta$ = .63). Intrinsic benefits also demonstrated a small indirect influence on both intentions to participate (.11, $p \leq .001$) and participation in activities (.07, $p \leq .001$). The indirect influence of extrinsic benefits on both intention to participate and participation were also minimal (-.02 and -.01, $p \leq .05$ respectively). Results were similar for the indirect influence of self-efficacy on these

variables. The strongest indirect effect was shown between attitudes toward development and previous participation in development activities (.16, $p \leq .001$).

The Maurer et al. (2003) results relating to the stronger relationship between intrinsic benefits and employees' involvement in development activities than for extrinsic benefits and development activity are consistent with SDT, in terms of the concordance between more autonomous motivations (i.e., personal interest and importance) and aspirations for personal growth (Deci et al., 1999; Ryan & Deci, 2002). Maurer et al. noted that while extrinsic benefits did not exert a strong influence on employees' involvement in development activity, the correlation between this variable and intrinsic benefits was moderate ($r = .56$, $p \leq .001$). The strength of this correlation suggested that extrinsic benefits may play a role in development activity. The authors suggested that research could perhaps explore these two types of benefits more fully.

Maurer, Lippstreu, and Judge (2008) replicated core aspects of the Maurer et al. (2003) study among a sample of 334 employees from a wide variety of demographic and occupational backgrounds. Willing participants had been recruited online independently from employers through StudyResponse.com. Maurer et al. (2008) found further support for the influence of perceived benefits on attitude toward participation in development ($\beta = .48$). Attitude toward participation subsequently influenced employees' participation intentions ($\beta = .48$) measured four weeks after the initial data collection. In this study, however, perceived benefits was measured as a composite variable, combining intrinsic, extrinsic, and organisational benefit scales (in the interest of parsimony theoretically/conceptually-related variables that showed moderate to high inter-correlations had been combined).

The previously-mentioned studies showed somewhat differential effects for intrinsic benefits and extrinsic benefits on factors relating to participation in more specific (voluntary, in-house, external) and general (composite of different activities) training and development activities. The study by Maurer et al. (2008) was somewhat different in that it did not differentiate between these effects.

With the non-mandatory status of participation in PD, outcomes related to salary, career, or employment are not directly contingent upon participation. Therefore, extrinsic benefits are not expected to be the most salient aspiration of change derived from participation. According to SDT, the functional significance derived from the largely self-initiated nature of participation in non-mandatory PD is likely to be informational rather than controlling (Deci et al., 1989). Future aspirations in the first instance are therefore likely to be intrinsic (Vansteenkiste et al., 2010), with the nature of participation supporting employees sense of autonomy (e.g., choice to participate and choice of activity relevant to personal need or desire), competence (e.g., providing skills and/or knowledge that facilitates confidence in ability to undertake behaviours related to the content of PD), and potentially relatedness (e.g., connection with others undertaking the same activity).

While not conducted in a work environment, the relationship between extrinsic rewards not contingent on performance of an activity and motivation was considered by Deci et al. (1999). In a meta-analysis of 128 experiments conducted with children and college students, Deci et al. examined the effect of expected extrinsic rewards (ranging from dollar bills to marshmallows) on intrinsic motivation for an activity (ranging from word games to construction puzzles), while undertaking that activity. Overall results suggested that rewards related to contingencies, including engaging in the activity, performing well on the activity, and completing the activity, tended to

undermine individuals' intrinsic motivation (free-choice behaviour and self-reported interest) toward that activity. One caveat to these results was that the reward of positive feedback enhanced intrinsic motivation for college students (but not for children) (Deci et al., 1999).

Of relevance to this study, results for the relationship between rewards given without specifically requiring the individual to engage in the target activity (task non-contingent rewards) and intrinsic motivation demonstrated non-significant composite effect sizes for both free-choice behaviour ($d$ = -0.14 [-0.39, 0.11]) and self-reported interest ($d$ = -0.21 [-0.08, 0.11]). In relation to these results Deci et al. (1999) concluded that because participants were not undertaking activities to obtain specified extrinsic rewards they did not feel controlled by them and intrinsic motivation was not undermined.

The results of the Deci et al. (1999) meta-analysis suggested that as pay increases and career advancement are not contingent on employees' participation in non-mandatory PD, these extrinsic benefits are less likely to be a salient aspiration from participation. Participation in these activities is therefore not controlled by the gain or loss of external contingencies. Yet employees work to obtain an income (Frese & Fay, 2001). Non-mandatory activities may not be seen as instrumental to financial or career benefits in the first instance, but such benefits are important considerations in the longer-term (Rynes, Gerhart, & Minette, 2004). However, as developmental activities, non-mandatory PD can be expected to be associated with intrinsic benefits related to personal growth in the first instance.

The previously-mentioned studies considered the unique influence of both intrinsic benefits and extrinsic benefits on participation-related outcomes. As potentially the most salient aspiration when participation is non-mandatory and

largely self-initiated, intrinsic benefits was also expected to facilitate employees' perceptions of financial and career benefits as a secondary benefit. This influence was examined in Study 1. Consistent with SDT, both Study 1 and Study 2 tested the relationship between employees' autonomous motivation for participation in non-mandatory PD and intrinsic benefits.

Without the transfer of what is learned in PD to the workplace, the time and resources invested in these activities, by both employees and employers, are likely wasted (Machin, 2002). Research has demonstrated that individuals who pursue more self-concordant personal goals (i.e., goals that are consistent with their inherent developing interests and core values) are likely to apply sustained effort toward achieving those goals and are therefore more likely to attain them (Sheldon & Elliot, 1999). Vansteenkiste, Simons, Lens, Sheldon, et al. (2004) also demonstrated that learning activities framed in terms of a contribution to intrinsic goals are generally more conducive to learning and performance outcomes than activities framed in terms of a contribution to extrinsic goals. In addition, intrinsic goals and an autonomy-supportive environment were shown to be associated with free-choice persistence in terms of behaviours that involve extra time and effort beyond that applied in learning activities.

Combined, this research suggests that if employees identify with the value of what is learned in non-mandatory PD to their personal development, as well as financial and career goals, these outcomes are likely to influence steps toward the use of what is learned in the workplace (Gagné & Deci, 2005). This important step can be seen as a move toward proactive goal striving (Strauss & Parker, forthcoming).

The influence of intrinsic benefits and extrinsic benefits on employees' transfer implementation intentions, as a proactive plan toward change and an initial step in the transfer process (Foxon, 1994), was therefore the focus in Study 1. The two subsequent studies (the qualitative aspect of Study 1 and Study 2) had somewhat different foci in terms of the transfer of non-mandatory PD learning to the workplace and influences on transfer implementation intentions.

**2.6.2 Strategies toward change: Intention to implement PD learning.** Autonomous motivation for participation and personal aspirations have been proposed as important aspects of employees' self-initiated participation in non-mandatory PD. However, without the transfer of PD learning to the workplace, participation is unlikely to be considered effective to the training goals of the individual employee, organisation, or work team (Aguinis & Kraiger, 2009). Therefore, the use of what is learned is paramount to the success of PD (Goldstein & Ford, 2002). For transfer to have occurred, the use of what is learned must not only be generalised to the job, but also be maintained over a period of time on the job (Baldwin & Ford, 1988).

Consistent with the non-mandatory and largely self-initiated nature of PD, the use of what employees learn in these activities is likely to also be at the discretion of employees themselves. A personal commitment or plan to use what is learned when in the workplace is therefore an important aspect of the proactive motivational process toward change energising employees' participation in non-mandatory PD. An initial step associated with this commitment in such an environment of choice (Cheng & Hampson, 2008) is an intention to implement strategies relating to specific behaviours that may facilitate change through the transfer of what is learned in PD to the workplace (Machin & Fogarty, 2003).

These transfer implementation intentions represent self-regulatory plans or strategies toward action (Chen & Kanfer, 2006; Latham, 2007); action that is guided by specified situational cues or conditions in the workplace that trigger that strategic action (Gollwitzer, 1999). As such, implementation intentions make salient to the employee the aspects of the work environment that are relevant to the achievement of their goals (Machin, 2002). The implementation intentions that are relevant to the transfer of training include goal setting, self-management, and relapse prevention strategies, as well as seeking support from supervisors and peers, practising the skills learned, and looking for opportunities to demonstrate the skills learned (Machin, 2002).

While not the action of implementation, intentions play a significant role in the guiding of behaviour and can be expected to facilitate the implementation of that behaviour (Ajzen, 2001). As such, implementation intentions set the scene for the use of what is learned in non-mandatory PD in the workplace (Beier & Kanfer, 2010). They also provide an indication of employees' readiness to transfer (Machin & Fogarty, 2003). Implementation intentions facilitate goal attainment by specifying how (i.e., when, where, and in what way) to implement the goals associated with those intentions (Gollwitzer, 1999).

The salience of environmental cues and strategies for the use of training in the workplace is most important after participation in non-mandatory PD, when employees have the opportunity to implement what they have learned (Machin, 2002). As noted by Latham and Locke (2007), in the work setting where task performance is ongoing and complex (as can be work roles more generally), implementation intentions may help employees to minimise procrastination and to get started with the use of what is learned. Prior to participation in non-mandatory

PD, the intention to implement strategies in the workplace to facilitate the use of what is learned can be seen as a move toward not only the use of what is learned, but the facilitation of envisioned goals (Mitchell & Daniels, 2003).

Employees' familiarity with intended strategies at each stage of the transfer process (before participation, during participation, and after participation) can therefore be expected to provide additional benefit. This benefit involves a more immediate and efficient action initiation that does not require conscious intent (Gollwitzer, 1999). This process of familiarity is likely to assist employees to overcome potential barriers that may occur when implementation is indicated (Machin, 2002).

This process is particularly salient for employees when participation and transfer are of a proactive, self-initiated nature. The context surrounding these activities is likely to be *informational* (i.e., supporting autonomy, promoting competence, and potentially relatedness) rather than *controlling* (i.e., pressuring employees to think or feel that they have to participate or to transfer what is learned) (Deci et al., 1989). As mentioned in relation to the benefits employees may associate with non-mandatory PD, from an SDT perspective these intentions are likely to be self-concordant, or consistent with employees' inherent interest and the perceived importance of these activities, as well as the intrinsic nature of their valued aspirations (Sheldon & Elliot, 1999).

Research has supported the association between the self-concordance of personal goals and both implementation plans and progress toward those goals. Sheldon and Elliot (1998) showed support for the influence of autonomous motivation for personal goals and progress toward those goals across three within-subject studies conducted among undergraduate students ($N$ = 128, $N$ = 141, and $N$ =

82 respectively) with a focus on individual goals (rather than persons). Autonomous motivation for goals was shown to positively predict participants' attainment of both longer-term goals (personal strivings) and shorter-term goals (personal projects) across an initial concurrent study and two subsequent prospective studies (over a 15-week period and a 4-week period). Controlled motivation for goals did not predict attainment of personal goals. Across the two prospective studies, results also demonstrated that the relationship between autonomous motivation for goals and the attainment of those goals was mediated by participants' sustained effort toward those goals.

The mediation results demonstrated by Sheldon and Elliot (1998) were replicated and extended at the aggregate or person level by Sheldon and Elliot (1999; Study 1). Measuring self-concordance using a variable formed by summing autonomous motivation (intrinsic and identified regulations) scores and subtracting controlled motivation (external and introjected regulations) scores, Sheldon and Elliot (1999; Study 1) showed that effort mediated the direct relationship between the self-concordance of goals and attainment of those goals. The authors determined that this mediation effect therefore "occurs for the whole goal system, not just single goals" (p. 486).

Further research was conducted by Koestner et al. (2006, Study 1) with a sample of 65 female and 22 male students who were randomly assigned to one of two implementation planning exercise conditions and a control condition. Results further demonstrated that relative to a control condition, an implementation planning exercise delivered in an autonomy-supportive manner resulted in significant academic and social goal progress over a one-month period, while a controlling implementation planning exercise did not. In turn, the self-concordance of

implementation plans resulted in greater goal progress, even after controlling for baseline goal self-concordance.

Koestner, Otis, Powers, Pelletier, and Gagnon (2008) also examined the relations among autonomous motivation, controlled motivation, and goal progress across three studies and a meta-analysis. Overall results of hierarchical regression analyses indicated that autonomous motivation was substantially related to goal progress, while controlled motivation was not. The relationship between autonomous motivation and goal progress was further shown to involve implementation intentions (specific plans about when, where, and how to pursue each goal and anticipated possible distractions and obstacles).

Koestner et al. (2008; Study 1) demonstrated that high school students (207 female and 202 male; mean age 15.54 years) with autonomous goal motivation were more likely to report the use of spontaneous implementation plans, which in turn were associated with greater academic and leisure goal progress measured one month later. Results of the second (86 female and 17 male undergraduate students; mean age 20.1 years) and third (47 female university students) studies suggested that autonomous motivation may interact with implementation plans to affect goal progress. That is, autonomous motivation appeared to have a helpful impact on academic and weight loss goal progress (also after one month) when combined with implementation plans. Results for controlled motivation were not significant in any of the analyses undertaken.

The meta-analysis conducted by Koestner et al. (2008) separately examined the relations of autonomous motivation and controlled motivation with goal progress across 11 studies (including the results of the three Koestner et al., 2008 studies). Results provided support for the relationship between autonomous motivation and

goal progress. Of particular relevance to the current study was the conclusion that the level of autonomous motivation toward a goal would seem to be a particularly sensitive indicator of the extent to which a goal intention is strongly held (Koestner et al., 2008).

While not conducted within a work environment, the results of these studies suggests that employees' transfer implementation intentions are an important outcome of the proactive motivational process for sustained participation in non-mandatory PD as an initial step (pre-participation rather than end-of-course) in the transfer of training to the workplace (Foxon, 1993). Specifically, both autonomous motivation for participation in PD and intrinsic benefits are likely to influence employees' transfer implementation intentions. Further, autonomous motivation for participation in non-mandatory PD may be expected to have an indirect influence on employees' transfer implementation intentions due to its association with the future intrinsic aspirations that may come from participation.

A further aspect of employees' sustained participation in non-mandatory PD is to consider how the skills and knowledge gained in these activities are transferred to the workplace. Given the importance of need satisfaction to SDT (Sheldon et al., 2003) participants in Study One were given the opportunity to express, in their own words, how these activities contributed to the fulfilment of the need for autonomy, competence, and relatedness in the workplace. The findings from this qualitative aspect of Study 1 are discussed in Chapter 4. Interestingly (as a preview), the qualitative findings suggested that the skills and knowledge gained in non-mandatory PD were transferred to the workplace in a prosocial sense. That is, the future benefits employees envisioned from participation in PD also included

prosocial aspirations (i.e., an aspiration to share and help others with what was learned).

### 2.7 Organisational Context

While participation in non-mandatory PD can be viewed as self-initiated by employees themselves (Feldman & Ng, 2008) and experienced as a proactive action for which they are responsible (Deci & Ryan, 1987), the influence of the work environment cannot be discounted. The work environment provides the context within which employees choose to participate in PD and in which the skills and knowledge gained are used.

Employees who participate in non-mandatory PD are likely to have a history of organisational experiences and knowledge that provide cues about the importance of these activities to the organisation and what will confront them when they return to their job (Mathieu & Martineau, 1997; Tannenbaum & Yulk, 1992). Some of these cues are conveyed by supervisor and peers, others by organisational policies and practices (Tannenbaum & Yulk, 1992). These cues help shape how non-mandatory PD is perceived by employees (Salas, Cannon-Bowers, Rhodenizer, & Bowers, 1999). These cues can potentially be proactively managed by organisations to create environments that are not only conducive to participation in non-mandatory PD, but also to the transfer of what is learned to the workplace (Blume et al., 2010).

From the SDT perspective, these organisational experiences can be autonomy-supportive or controlling (Gagné & Deci, 2005). These experiences can therefore facilitate or inhibit the interest and importance of non-mandatory PD to the employee, as well as their intention to use what is learned in their jobs. Research has demonstrated that employees who come from a work environment that is supportive of training are likely to report greater pre-training motivation and evidence greater

transfer of training than those who come from less supportive environments (Beier & Kanfer, 2010; Colquitt et al., 2000; Mathieu & Martineau, 1997).

As training- and development-related aspects of the organisational context, a positive climate for transfer and more general organisational supports for training and development can be expected to influence employees' autonomous motivation for participation in non-mandatory PD and their transfer implementation intentions. These aspects of the organisational context may be managed in an autonomy-supportive way to improve PD outcomes for both employees and organisations.

**2.7.1 Positive work environment.** Research has demonstrated the importance of a positive training transfer climate to transfer of training outcomes. Training transfer climate has been described as a generic construct that encompasses those aspects of the organisational context surrounding training that directly influence the generalisation and maintenance of skills and knowledge learned to the workplace (Machin & Fogarty, 2004; Rouiller & Goldstein, 1993). Research has also demonstrated that those aspects of the organisational context that influence transfer can also influence pre-training attitudes and motivation for participation in training events (Beier & Kanfer, 2010; Maurer et al., 2008; Maurer et al., 2003).

In relation to transfer, Rouiller and Goldstein (1993) conducted one of the first empirical studies to demonstrate this association with a sample of 102 trainees undertaking mandatory managerial skills training within a large, franchised fast-food chain. Managers provided ratings of the transfer climate just prior to trainees' arrival in designated work units, after completion of the training program. Managers and experienced crew member assessed trainees' transfer performance after 8 to 12 weeks on the job. An overall rating of entire unit in which each of the trainees were placed was also obtained prior to the arrival of the new trainee manager.

Using data aggregated at the unit level, Rouiller and Goldstein (1993) found that an overall positive transfer climate was significantly related to trainees transfer behaviour, after controlling for trainees learning outcomes and overall unit behaviour performance ratings. Further, the two component scales of the overall transfer climate scale; situational cues that served to remind trainees of their training (goal cues, social cues, task cues, self-control cues) and the consequences for the use of training when back on the job (positive feedback, negative feedback, punishment, no feedback), explained unique variance in the prediction of transfer behaviour.

An extension of the Rouiller and Goldstein (1993) study conducted by Tracey, Tannenbaum, and Kavanagh (1995) further demonstrated that both training transfer climate and a continuous-learning culture had direct positive effects on the post-training behaviour of experienced managers who had undertaken a voluntary supervisory skills training program.

A meta-analysis of 106 studies in the training motivation literature conducted by Colquitt et al. (2000) demonstrated further support for the relationship between organisational context variables and training outcomes. Results of the meta-analysis showed that a positive transfer climate, supervisor support and peer support were moderately to strongly related to the transfer of training ($r_c$'s of .37, .43, and .84 respectively). Results further demonstrated that these variables were also moderately related to motivation to learn ($r_c$'s of .39, .36, and .37 respectively).

Cross-sectional research conducted by Kontoghiorghes (2004) demonstrated that a positive learning transfer climate explained the highest proportion of variance in motivation to learn, motivation to transfer, and training transfer in a series of three step-wise regression analyses. The sample included 198 employees of the information technology division of a large automaker in the United States (75.1%

male). Other more general work environment (e.g., organisational commitment, job motivation and satisfaction, job to quality awareness) and organisational culture (e.g., risk taking and innovation driven culture, quality driven culture) related factors also differentially predicted these outcomes. However, a positive learning transfer climate accounted for more than 50% of the explained variance in each of the models (Kontoghiorghes, 2004). While Kontoghiorghes found that a positive transfer climate was the strongest predictor of motivation to learn, motivation to transfer, and training transfer, the components that defined this construct were not clear to the reader of this study, as the scale was not described (depicted in Figure 2, Kontoghiorghes, 2004, p. 214).

Machin and Fogarty (2004) described the structure of a positive transfer climate in an examination of the underlying structure of training transfer climate using the Climate for Transfer Questionnaire (CTQ; Thayer & Teachout, 1995). Based on Rouiller and Goldstein's (1993) transfer climate factors, the CTQ consisted of two factors corresponding to antecedent situational cues for the use of what is learned in training when back in the work area (goal cues, social cues, task cue) and consequences of the use of what is learned (positive reinforcement, negative reinforcement and punishment, and extinction). An initial confirmatory factor analysis conducted by Machin (1999) demonstrated that rather than two factors representing antecedents and consequences, these variables represented a positive work environment (goal cues, social cues, task cue, as well as positive reinforcement) and a negative work environment (negative reinforcement and punishment, and extinction) factor.

Machin and Fogarty (2004) further demonstrated the positive work environment and negative environment underlying structure of the CTQ variables

using principal components analysis with a two-factor solution forced on the goal cues, social cues, task cue, positive reinforcement, negative reinforcement and punishment, and extinction variables. A second factor analysis which included both positive and negative affect variables (PANAS; Watson, Clark, & Tellegen, 1988) further supported this factor structure. Positive affectivity served as an additional marker for the positive valence factor and negative affectivity served as a marker for the negative valence factor (Machin & Fogarty, 2004).

The positive work environment construct (Machin & Fogarty, 2004) was included in Study 1 and was expected to influence employees' autonomous motivation for participation in non-mandatory PD and transfer implementation intentions.

**2.7.2 Organisational support for development.** Another aspect of the organisational context that is likely to influence employees' participation in non-mandatory PD involves management practices that facilitate and support employees' involvement in development generally (Langford, 2009). Organisational supports, consisting of an organisational commitment to learning and development, performance appraisal, and the provision of career opportunities can be viewed as more formal aspects of a continuous-learning environment that reinforces achievement and personal development (Tracey et al., 1995).

An organisational learning and development orientation has been shown to influence employees' development orientation (Maurer, 2002). In particular, employees' interest and intentions to participate in internally provided development activities (Maurer & Tarulli, 1994). Therefore, an organisational environment that facilitates continuous learning, coupled with the provision of development activities,

should encourage employee involvement in development opportunities (Maurer, 2002).

Further, performance appraisal can be seen as an important aspect of supervisor support for career development during which plans and goals for improvement and participation in development opportunities can be facilitated (Maurer, 2002). In terms of self-initiated participation in non-mandatory PD, this process can be seen to facilitate employees' choice about how to undertake PD, when to do it, and perhaps with whom to do it (Sheldon et al., 2003, p. 368).

In Study 1, organisational supports, consisting of an organisational learning and development orientation, career opportunities, and performance appraisal were expected to influence employees' autonomous motivation for participation in non-mandatory PD and potentially, transfer implementation intentions. Informed by the qualitative aspect of Study 1, Study 2 examined a somewhat different organisational context antecedent influence on the proactive motivation processes.

# Chapter 3 – Study 1

## 3.1 Introduction to Study 1

As outlined in Chapter 1, this research program consisted of a mixed-method design, incorporating a concurrent-embedded and sequential quantitative process. The research design was depicted in Figure 1.1. The concurrent-embedded aspect of the design was used in Study 1 and involved both quantitative and qualitative data collected using an online Professional Development survey, followed by a series of five focus groups. Priority was given to the quantitative data. The qualitative analysis was undertaken to complement the first quantitative study and to inform the subsequent quantitative study. The qualitative data were therefore embedded within the quantitative data (Creswell & Plano Clark, 2011). The quantitative and qualitative data were analysed separately. The quantitative study is reported in this chapter. The qualitative study is reported in Chapter 4. Both data types subsequently informed the development of the Study 2 quantitative design, reported in Chapter 5.

## 3.2 Rationale for Study 1

As outlined in Chapter 2, an initial, and critical, concern related to the overall effectiveness of non-mandatory professional development (PD) offered within an organisation is that employees' participate. Without participation and the use of what is learned, the valuable resources directed toward these activities by the organisation and employees are likely wasted. Initial questions related to non-mandatory PD therefore involve employees' self-initiated choice to participate.

Study 1 was conducted within a tertiary education organisation in which an integrated and holistic approach (Blackmore, Chambers, Huxley, & Thackwray, 2010) was taken to the offering of non-mandatory PD. The study was undertaken as part of a wider review of PD within the organisation. With more than 50 PD

activities offered by the organisation, the majority were non-mandatory in nature, with only three induction activities delivered on a mandatory basis. All employees of this organisation were largely responsible to self-initiate participation in non-mandatory PD according to their personal needs and desires. Employees included both academic and general staff (support and professional services). The overall purpose of all non-mandatory PD offered by the organisation was "…to provide all staff with opportunities to participate in appropriate developmental programmes in order to increase their skills, broaden their experience and enhance their future career opportunities" (University of Southern Queensland, 1998).

Within the organisation, non-mandatory PD encompassed activities related to skill and career enhancement (Human Resources [HR]), information communication technology (ICT), and learning and teaching support (LTS). While both academic and general employees participated in the former two types of activities, the LTS activities were predominantly directed toward academic employees. Certificates of attendance were forwarded to employees after participation; however learning was not formally assessed.

Based on the review of the literature presented in Chapter 2, the overall purpose of Study 1 was to examine employees' perceptions about their participation in non-mandatory PD provided within their work organisation within a proactive motivation framework (Parker et al., 2010) using a Self-Determination Theory (Deci & Ryan, 1985, 2000) perspective. With a focus on the self-initiated efforts of employees, these perspectives were seen to provide the best combination to create an environment that achieves sustained participation in non-mandatory PD and performance outcomes. The quantitative aspect of Study 1 is reported in this chapter

and is highlighted as Study 1 – QUANTITATIVE in the flow chart of the research design in Figure 3.1.

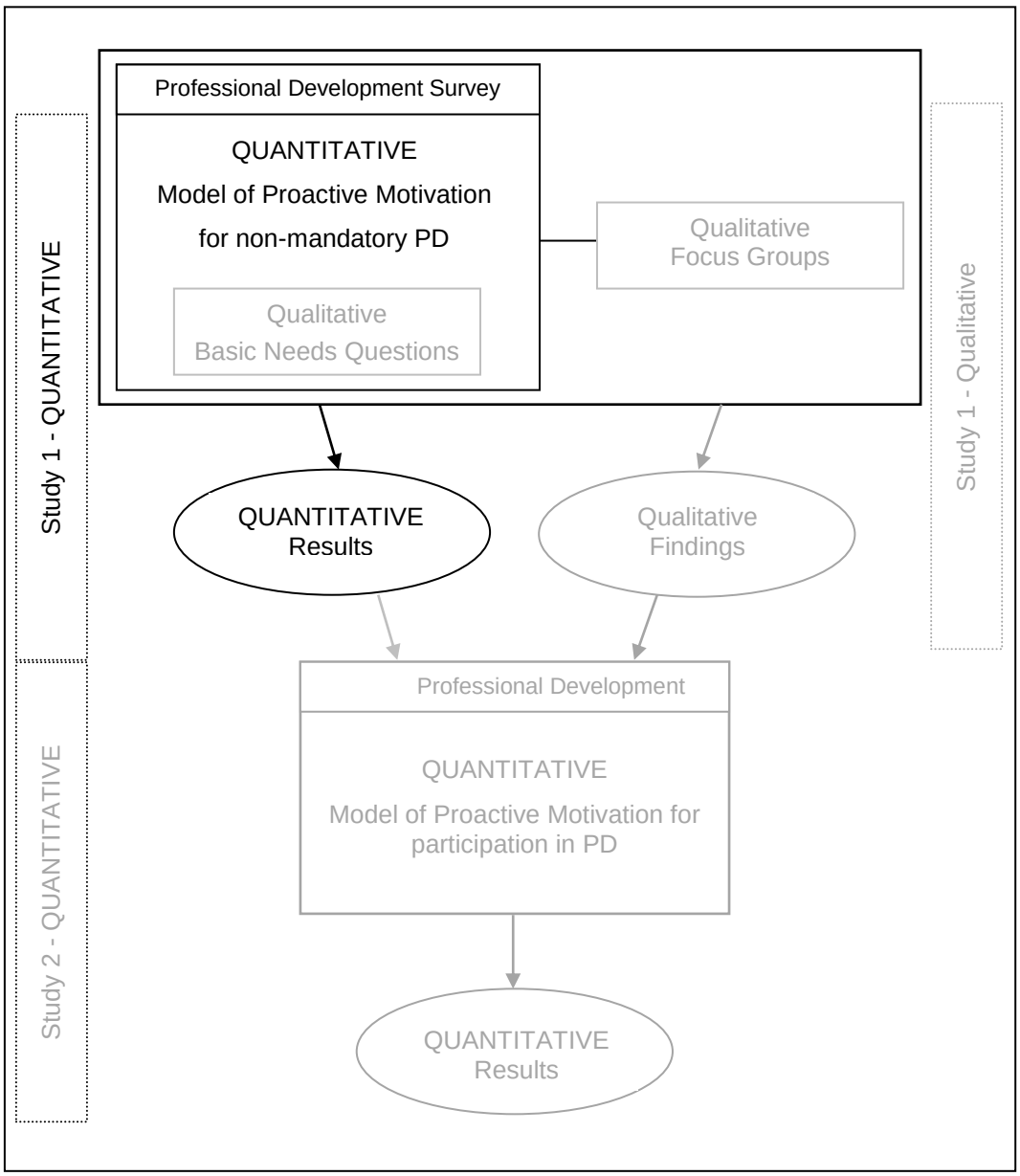


*Figure 3.1.* Flow chart of research design highlighting the quantitative aspect of the Study 1 concurrent design. Model developed from Creswell and Plano Clark (2011).

### 3.3 Specific Aims of the Quantitative Aspect of Study 1

The quantitative aspect of Study 1 examined a model of the proactive motivation and goal generation processes energising employees' self-initiated and sustained participation in non-mandatory PD within a single organisation.

Specifically, the study examined the influence of constructs related to the training related organisational context (Positive Work Environment, Organisational Support) and employees' Autonomous Motivation for participation in non-mandatory PD on the proactive goals (Intrinsic Benefits, Extrinsic Benefits) leading to employees' intention to use strategies to facilitate the use of what is learned in the workplace (Transfer Implementation Intentions). The conceptual Proactive Motivation and Antecedent model for participation in non-mandatory PD was based on elements of the conceptual model proposed by Parker et al. (2010) and is depicted in Figure 3.2.

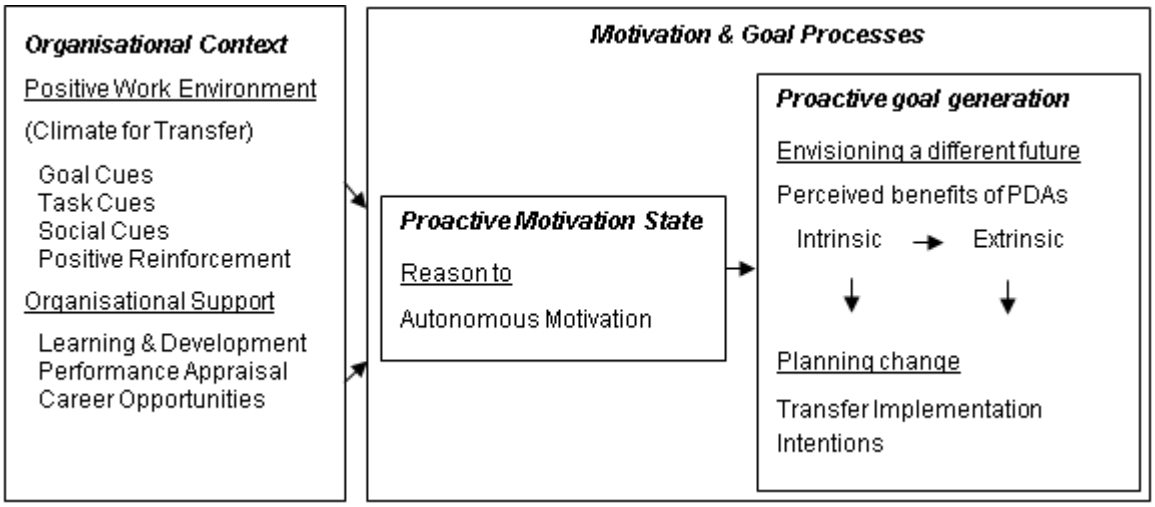


*Figure 3.2.* Conceptual Proactive Motivation Processes and Antecedent model for participation in non-mandatory PD (based on Parker et al., 2010).

A detailed description of the hypothesised relationships in the model follows the presentation of Figure 3.3, which operationalizes Figure 3.2. The nature of the hypothesised relationships between the variables in Figure 3.3 is indicated by the sign next to each path.

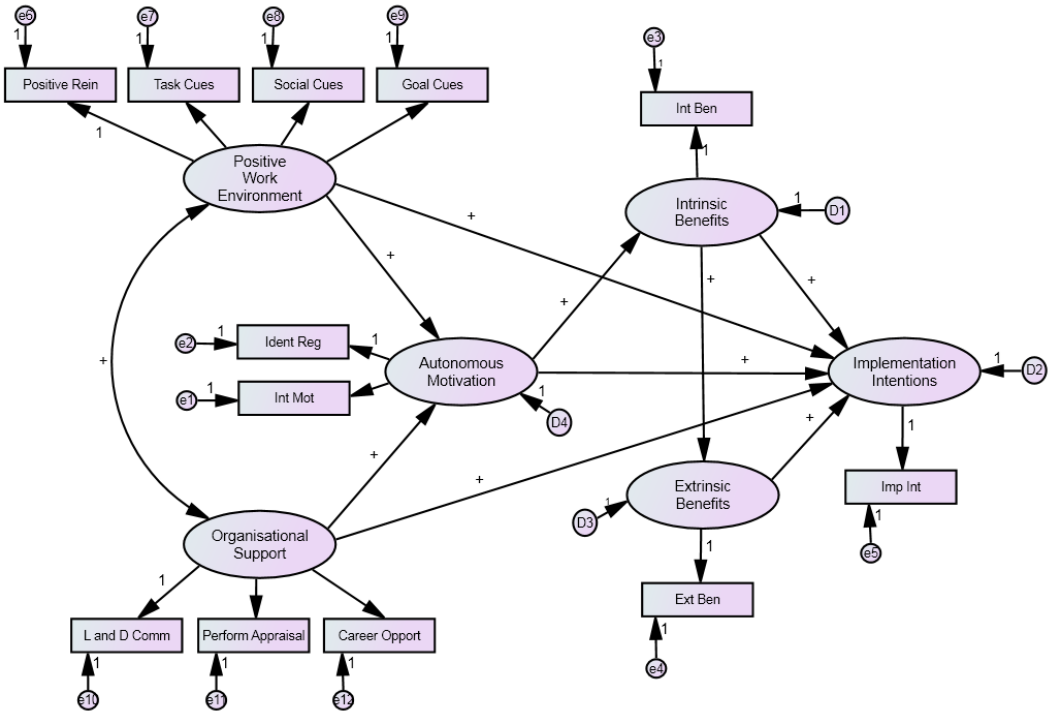


*Figure 3.3.* Study 1 *a priori* hypothesised structural model.

A model building process was used for the Study 1 quantitative data with the model tested in two stages. This process is outlined in section 3.6.2. The first stage of the process examined the core Motivation and Goal Processes aspect of the model. The second stage examined the influence of the antecedent training and development related organisational context variables on the motivation and goal generation processes in the full Proactive Motivation Processes and Antecedent model.

The hypotheses captured by the conceptual model that were central to the aims of this dissertation were as follows. For the first stage of analyses:

3.1. It was hypothesised that Autonomous Motivation would have a positive influence on Intrinsic Benefits. This hypothesis was based on the work of researchers who found that autonomous motivation for training and development (Maurer et al., 2003) and personal strivings (Sheldon & Kasser, 1995) was associated with the pursuit of intrinsic benefits.

3.2. It was hypothesised that Autonomous Motivation would have a positive influence on Transfer Implementation Intentions. This hypothesis was based on the work of a number of researchers (e.g., Koestner et al., 2006, 2008; Sheldon & Elliot, 1998) who demonstrated a positive influence of autonomous motivation on implementation plans and progress toward personal goals. In the work environment, Gegenfurtner et al. (2010) also found that autonomous motivation for transfer influenced transfer implementation intentions in the post-training environment.

3.3. It was hypothesised that Intrinsic Benefits would have a positive influence on Extrinsic Benefits. This hypothesis was further to the work of Maurer et al. (2003) who found Intrinsic Benefits and Extrinsic Benefits to be moderately correlated, while Extrinsic Benefits did not influence involvement in development activities.

3.4. It was hypothesised that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions. This hypothesis was based on the work of a number of researchers who have demonstrated that individuals' who pursue more self-concordant personal and educational goals are likely to implement plans to achieve those goals and sustain effort toward the achievement of those goals (Koestner et al., 2006, 2008; Sheldon & Elliot, 1999; Vansteenkiste, Simons, Lens, Sheldon, et al., 2004).

3.5. It was hypothesised that Extrinsic Benefits would have a positive influence on Transfer Implementation Intentions. This hypothesis was based on the work of many researchers (e.g., Mathieu et al., 1992; Noe & Schmitt, 1986; Tharenou, 2001) who have demonstrated an association

between employees' participation in development activities and an expectation of extrinsic outcomes.

3.6. It was hypothesised that Autonomous Motivation would have a positive indirect influence on Implementation Intentions through its relationship with Intrinsic Benefits. This hypothesis was based on the central nature of goals in the training and development (Colquitt et al., 2000; Latham, 2007) and proactive work motivation (Bindl & Parker, 2010; Parker et al., 2010) literature.

3.7. It was hypothesised that the core Proactive Motivation and Goal Generation model would be equivalent across academic and general employees. This hypothesis was based on the integrated and holistic approach to the delivery of non-mandatory PD (Blackmore et al., 2010) within the organisation studied, with participation largely self-initiated by both academic and general employees' according to their own needs and desires.

The hypotheses related to the second stage of analyses were:

3.8. It was hypothesised that the correlation between the Positive Work Environment and Organisational Support latent variables would be positive. This hypothesis was based on the training and development nature of the variables.

3.9. It was hypothesised that Positive Work Environment and Organisational Supports would have a positive influence on both Autonomous Motivation and Transfer Implementation Intentions. This hypothesis was based on the work of a number of researchers (e.g., Colquitt et al., 2000; Kontoghiorghes, 2004; Maurer & Tarulli, 1994) who have demonstrated

that employee's perceptions of a supportive training and development related organisational context influenced pre-training motivation, as well as the transfer of training. Vansteenkiste, Simons, Lens, Sheldon, et al. (2004) also found that an autonomy-supportive environment was associated with more free-choice persistence after participation in learning activities.

3.10. It was hypothesised that Positive Work Environment and Organisational Support would have an indirect influence on Transfer Implementations. This hypothesis is based on the work of several researchers (e.g., Baard et al., 2004; Roca & Gagné, 2008) which has demonstrated that an autonomy-supportive work environment facilitated autonomous motivation and subsequent initiation of activities and job performance.

## 3.4 Method

**3.4.1 Participants.** A total of 439 employees of a regional Australian university participated in this study. Approximately three-quarters of participants (71.1%) were general employees, with the 28.9 % of academic employees somewhat lower than the 40.3% in the university population. The majority of participants were female (64.0%). This percentage was slightly higher than the 57.4% of females in the university population. The median age grouping of participants was 41 to 50 years.

The majority of participants were in continuing (permanent) positions (80.1%). Approximately two-thirds of participants had worked within the organisation for up to 10 years and within their faculty or section for up to 5 years (64.9% and 62.9% respectively). Half (50.8%) had been in their current role for 2 years or less. The majority (78.1%) of participants had attended non-mandatory PD in the next 12

months and 92.7% had attended within the last 2 years. Full demographic characteristics of the study sample and the number of participants within each category are shown in Appendix A.

The response rate for the wider study was 31.8%, with 456 of the 1,435 employees participating. Responses to a screening item; "Please indicate whether you intend to participate in professional development activities in the next 12 months" were used as the criterion for inclusion in this study. This criterion was important within the organisation, as a 12 month period represented the non-mandatory PD cycle (i.e., most PD activities were offered at least once within this period). Participants responded to the screening item by selecting one of three nominal categories (*Yes*; *Maybe*; *No*). Participants who responded "*Yes*" or "*Maybe*" to the item were included in the study. Seventeen (17; 3.7% of the sample) participants responded "*No*" to this item and were not included in this study.

The demographic information provided by participants was examined to determine whether the employees who responded "*No*" to the screening item differed in any way from other participants (Blunch, 2010). As suggested by Tabachnick and Fidell (2007), a backward logistic regression analysis was performed as a screening technique to determine whether there were demographic differences between the 17 respondents who did not intend to participate in non-mandatory PD the next 12 months and those who did intend to participate.

The logistic regression analysis was performed using SPSS BINARY LOGISTIC, with intention to participate in non-mandatory PD in the next 12 months dummy coded as a dichotomous variable and entered as the outcome (0 = No intention to participate in next 12 months, $n = 17$; 1 = Intention to participate in next 12 months, $N = 439$). Seven demographic variables were entered as predictors and

included gender, age, occupational group, time since last attended non-mandatory PD, time at organisation, time in Faculty or Section, and time in current role. With the backward conditional method selected, all seven variables were entered at the first step. Seven successive steps were generated in the analysis, with one non-significant variable removed at each step. The Wald criterion indicated that time since last attended non-mandatory PD was the only reliable demographic predictor of intention to participate in non-mandatory PD in the next 12 months, $\chi^2$ (1, $N$ = 456) = 9.20, $p$ = .002. The odds of intention to attend in the next 12 months decreased slightly for each category of increase in time since last attended (EXP (β) = .58, 95% CI [.41, .83]). Of the participants who did not plan to attend non-mandatory PD in the next 12 months, 11.8% had attended in the previous 2 to 3 years and 15.4% more than 4 years ago compared with 3.4% and 2.5% respectively of those who planned to attend in the next 12 months.

**3.4.2 Procedure.** This study was undertaken as part of a wider review of non-mandatory PD provided to all employees within a regional Australian university. A cross-sectional, self-report online questionnaire was developed in consultation with Human Resources, Information Technology, and Learning and Teaching PD providers within the organisation. The questionnaire was developed to ascertain employee perceptions about organisational context and motivational aspects of participation in non-mandatory PD. The questionnaire is described further in the Questionnaire Measures section. Ethical clearance to conduct the wider study was obtained prior to the commencement of data collection. A copy of the Ethical Clearance letter can be viewed in Appendix B.

All employees of the university who had previously participated in non-mandatory PD were invited by Executive and Middle Management to complete an

online Professional Development Survey questionnaire. The researcher was informed that all employees of the university would have participated in at least one non-mandatory PD activity relevant to their work. Individual participant responses were anonymous and confidential. Completion of the questionnaire was voluntary.

Recruitment involved an email invitation sent from the Vice-Chancellor's Office to all university-based employee email accounts prior to the commencement of the data collection period. The email provided a web-link to the questionnaire. It also provided an outline of the purpose and nature of the survey and emphasised the voluntary nature of participation, as well as the confidentiality of survey responses. A copy of the Vice-Chancellor's invitation email can be viewed in Appendix C. In addition, Human Resources stakeholders requested Faculty Deans and Heads of Sections to reinforce the importance of the study and to promote participation throughout the survey period.

Employees were able to access and complete the online questionnaire at work or at home, over a four week period during August 2009. At the recommendation of the managers of two work areas, a small number of employees who did not require dedicated computer access to undertake work duties were also offered a paper version of the questionnaire. The paper copies were distributed to these managers, who informed the relevant employees about the paper questionnaire, if preferred. Five completed paper-based questionnaires were returned from employees in the two work areas. At the conclusion of the data collection period, the researcher manually entered the paper-based data into a database and the data was subsequently combined with online responses.

Further to the information provided in the invitation email, the purpose of the study was explained on the introductory page of the survey. Participants were also

assured of the confidential and voluntary nature of the survey, and that responses were anonymous (respondents were not able to be identified), with individual results not reported. It was also explained that respondents could exit the survey at any stage if desired, without penalty or identification, to facilitate the process of informed consent (Lindorff, 2007).

When submitted, the completed online responses were sent directly to a secure database, for analysis at the completion of the survey. Paper surveys were returned through the university internal mail system, in a secure self-addressed envelope. At no time were individual employee responses viewed by the PD providers or other university employees not engaged in the survey process. Access to the data was limited to the data administrator and wider study researchers. The web-site was administered by a professionally trained person with expertise in computer and internet security. A report of aggregated results for the wider Professional Development survey was provided to the organisation after completion of the online survey period. These procedural strategies were used to help minimise potential common-method and response-bias (Podsakoff, MacKenzie, & Podsakoff, 2012).

**3.4.3 Measures.** A cross-sectional questionnaire, the Professional Development Survey, was developed in conjunction with key PD providers of the organisation studied. A copy of the questionnaire is shown in Appendix D. The first section of the questionnaire asked participants to answer a series of demographic questions related to gender, age, type of position held, employment category, campus and faculty or section worked at, as well as tenure within the organisation, faculty or section, and within current role.

A number of items were included in the questionnaire to provide feedback to PD providers and did not form part of this study. These items related to post-activity

queries, satisfaction with specific activities, and career goals and development. Mentioned to provide a comprehensive overview of the questionnaire, these items did not form part of this study and are not discussed in further sections of this dissertation.

In relation to this study, the Professional Development Survey included scales measuring participants' perceptions of antecedents related to the organisational context and criterion scales related to the motivation and goal generation processes associated with proactive participation in non-mandatory PD. The organisational context scales included four measures of a positive climate for transfer of training to the workplace (positive work environment) and three measures of organisational support. The criterion measures included scales related to autonomous motivation to participate in non-mandatory PD, perceived intrinsic and extrinsic benefits associated with participation in non-mandatory PD, and transfer implementation intentions.

The questionnaire also included three open-ended questions related to the contribution of non-mandatory PD to employees' sense of control over their work, connection with others in the workplace, and confidence in their ability to do their job. The qualitative questions were placed in the body of the survey (between the organisational context and motivational items and the goal generation items) to provide a proximal separation of items to help eliminate the retrieval of cues from prior items and minimise potential common-method bias (Podsakoff et al., 2012). The qualitative data obtained from these questions are presented in Chapter 4.

At the conclusion of the questionnaire participants were also given the opportunity to make additional comment about what they particularly enjoyed about activities and to provide practical suggestions for improving activities. These

comments provided specific feedback to PD providers about the content of non-mandatory PD activities. Self-report data seemed appropriate because the focus of the study was employees' self-perceived motivations, attitudes, and intentions (Gegenfurtner et al., 2010).

The questionnaire was created using an online survey development program named *SurveyOLS*. This program was developed by technical staff of the organisation studied to provide an online survey interface, facilitate data collection, and aid data management.

All measures included in the questionnaire were rated on a seven-point Likert-type scale, with response options ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The average response to items within each scale was calculated to provide an overall scale score.

A number of the scales used in this study were adopted from previous research in which data were gathered in the context of participation in a specific activity (Guay, Vallerand, & Blanchard, 2000; Machin & Fogarty, 2004). This research considered these variables in a new context; namely general participation in non-mandatory PD offered within the organisation in the next 12 months. This study was therefore somewhat exploratory in nature. Further details about these scales are included in the description of individual scales, with the items comprising each scale listed in Appendix E.

***Autonomous motivation***. Autonomous motivation for participation in non-mandatory PD was measured with two subscales adapted from the Situational Motivational Scale (SIMS; Guay et al., 2000). The SIMS is a brief and versatile self-report measure of motivation, as described by Self-Determination Theory (SDT; Deci & Ryan, 1985). The SIMS consists of four scales each with four items that

relate to more autonomous (Intrinsic Motivation and Identified Regulation) and controlled (External Regulation) types of motivation, with the fourth scale related to Amotivation.

The SIMS scales were developed to provide a focus on the "why" of behaviour by equating the operational and psychological definitions of SDT motivation (Guay et al., 2000). The scales thereby emphasise the nature or quality of an individual's motivation for participation in an activity while engaging in that activity, rather than the motivational consequences and determinants of participation (i.e., asking employees for a reason for participation in non-mandatory PD, rather than how they feel about participation) (Guay et al., 2000). Guay et al. (2000) reported acceptable internal consistencies for the Intrinsic Motivation (α range = .86 to .95) and Identified Regulation (α range = .65 to .86) scales across a series of five SIMS validation studies (involving specific academic activities, discussions with others, basketball games) among French Canadian college students. For the current study, six items related to the more autonomous types of motivation; Intrinsic Motivation and Identified Regulation were adapted to reflect autonomous motivation for participation in PD.

- Intrinsic motivation was measured on a three-item scale with items such as "I think professional development activities are interesting"
- Identified Regulation was measured on a three-item scale with items such as "I believe it is important for me to attend professional development activities".

Prior research had combined more autonomous motivations by averaging the responses to items across intrinsic motivation and identified regulation scales to produce a mean score for an observed autonomous motivation scale (e.g., Sheldon &

Elliot, 1998; Vansteenkiste, Simons, Lens, Sheldon, et al., 2004; Vansteenkiste et al., 2009). As the current study examined a latent variable model the structure of the observed intrinsic motivation and identified regulation variables was retained. These variables were specified as indicators of a latent autonomous motivation construct.

***Intrinsic benefits and extrinsic benefits.*** Two types of perceived benefits from participation in PD were included in this study as the envisioning of a different future aspect of the motivation and goal generation process. Perceived benefits were measured using scales developed by Maurer et al. (2003) related to the Intrinsic-psychosocial Benefits (written as ‘’Intrinsic Benefits’ throughout this study) and Extrinsic Benefits of PD.

- Intrinsic Benefits was measured on an eight-item scale, with items such as “If I participate in professional development activities, my work would likely be more interesting as a result” and “If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work”. Two items were reverse-scored.
- Extrinsic Benefits was measured on a three-item scale, with items such as “Better pay or other rewards are likely to result from my participation in professional development activities” and “Participation in development activities will help me advance in my career”. One item was reverse-scored.

Maurer et al. (2003) reported acceptable internal consistencies for the Intrinsic Benefits ($\alpha = .90$) and Extrinsic Benefits ($\alpha = .90$) scales when measured in the context of participation in development activities in general (not specific to non-mandatory activities). However, in the context of this study, one item within the Intrinsic Benefits scale at face value appeared to relate more to an external career

incentive (the *acquiring* of *future* work) than to an internal incentive (*current* work *being* more interesting). A common factor analysis with maximum-likelihood estimation and oblique (direct oblimin) rotation of factors summarised the relationships among the 11 items within the two scales. The maximum-likelihood estimation procedure was used in accord with the use of maximum likelihood estimation of parameters in the structural equation models (Meyers, Gamst, & Guarino, 2006). Two factors were extracted and item loadings corresponded to the Intrinsic Benefits and Extrinsic Benefits scales. However, results showed that the item "I am likely to get more interesting work assignments and more stimulating work if I participate in professional development activities" related more strongly to Extrinsic Benefits (factor loading of .64) than to Intrinsic Benefits (factor loading of .18). According to the results of the analysis, this item was added to the Extrinsic Benefits scale.

***Transfer implementation intentions***. The planning of specific behaviours to facilitate the implementation of proposed future actions is an integral part of the proactive goal generation process (Parker et al., 2010). Employees' intention to engage in specific behaviours in the workplace that facilitate the use of what is learned in PD was measured with the 11-item Transfer Implementation Intentions scale developed by Machin and Fogarty (2004). The scale assesses employee intentions to perform behaviours considered crucial to the transfer of training to the workplace (Machin & Fogarty, 2004). These behaviours include goal setting, self-management, relapse prevention, as well as support-seeking from supervisors and peers, practice of the skills learned, and seeking opportunities to demonstrate the skills learned during training. Machin and Fogarty demonstrated the uni-dimensionality of the Implementation Intentions scale was using principal

components analysis and reported acceptable internal consistency for the scale (α = .90) in a post-training, specific activity context. Further to the Machin and Fogarty study, this research applied the scale to the context of participation in future non-mandatory PD. Examples of items included in the scale are "I will look for opportunities to use the skills which I have learned" and "I will discuss with my supervisor ways to develop the skills which I have learned".

***Positive Work Environment.*** Positive Work Environment was measured with 36 items from the 56-item Climate for Transfer Questionnaire (Thayer and Teachout, 1995), revised for a non-military training environment by Machin and Fogarty (2004). Based on the work of Rouiller and Goldstein (1993), Thayer and Teachout (1995) proposed a six-factor structure among the climate for transfer items, with a two-factor higher-order structure. This structure measured participants' perceptions of the antecedent situational cues to the use of training within the work environment (Goal Cues, Task Cues, and Social Cues) and the consequences for using training in the work place (Positive Reinforcement, Negative Reinforcement and Punishment, and Extinction).

Machin (1999) and Machin and Fogarty (2004) also identified a two-factor higher-order structure among the six climate for transfer scales. However, the structure differed from that proposed by Thayer and Teachout (1995). Machin and Fogarty suggested that the first factor was defined by the three antecedent variables (Goal Cues, Task Cues, and Social Cues), and the Positive Reinforcement consequence variable. The second factor was defined by the consequence variables: Negative Reinforcement and Punishment and Extinction. The two factors related to positive and negative valence groupings, respectively. The factors were described by Machin and Fogarty as Positive Work Environment and Negative Work

Environment. The four Positive Work Environment variables were included in the current study as aspects of the organisational context specifically relevant to more proactive participation in non-mandatory PD.

- Goal Cues was measured on a six-item scale, with items such as "Supervisors meet with employees to set goals following training" and "Supervisors expect employees to use their training on the job".
- Social Cues was measured on a 10-item scale, with items such as "Supervisors meet regularly with employees to work on problems they may have in trying to use their training" and "Supervisors give employees the chance to try out their training on the job immediately".
- Task Cues was measured on a 10-item scale, with items such as "The equipment in my work area allows employees to use the skills gained in training" and "Job aids are available on the job to support what employees learned in training". Three items were reverse-scored.
- Positive Reinforcement was measured on a 10-item scale, with items such as "Supervisors praise employees when they use their training" and "Fellow employees appreciate employees who do their jobs using the skills gained in training".

Machin and Fogarty (2004) reported acceptable internal consistencies for the Goal Cues ($\alpha = 0.81$), Social Cues ($\alpha = 0.84$), Task cues ($\alpha = 0.84$), and Positive Reinforcement ($\alpha = 0.79$) scales.

***Organisational Support.*** Organisational support was measured with nine items from the participation aspect of the 102-item Voice Climate Survey developed by Langford (2009). The items constituted three subscales associated with the organisation giving staff a sense of development in terms of a commitment to

Learning and Development, Performance Appraisal, and Career Opportunities. Langford found support for the factor structure and psychometric properties of the Voice survey scales in a longitudinal study among 13,729 employees and 1,279 managers within 1,000 predominantly Australian based organisations. The scales used were as follows:

- Learning and Development was measured on a three-item scale, with items such as "There is a commitment to ongoing training and development of staff in my work area".
- Performance Appraisal was measured on a three-item scale, with items such as "The way my performance is evaluated provides me with clear guidelines for improvement".
- Career Opportunities was measured on a three-item scale, with items such as "I am given opportunities to develop skills needed for career progression".

Langford (2009) reported acceptable internal consistencies for the Learning and Development ($\alpha = 0.80$), Career Opportunities ($\alpha = 0.83$), and Performance Appraisal ($\alpha = 0.83$) scales when measured as part of a wider organisational climate survey.

### 3.5 Analyses performed

Prior to statistical analyses the data were screened for accuracy of input, outliers, normality, linearity, singularity, and multicollinearity using the *Statistical Package for the Social Sciences 19.0.0* package (SPSS, 2010). Correlations of .90 and .80 were used as criterion for singularity and multicollinearity respectively. Values were not missing from the dataset. With large sample sizes ($n \geq 200$) statistical tests of univariate (Field, 2009) and multivariate (Kline, 2011) normality are likely to be significant with slight departures from normality. The shape of the

distribution and absolute values of skew and kurtosis are more informative and were examined to assess the normality of the variables in this study (Field, 2009; Kline, 2011). Absolute values of 2 for skew and 7 for kurtosis were used as criteria for problematic values as recommended by Curran, West, and Finch (1996). The squared Mahalanobis' distance (D2) values were reviewed prior to model analyses for potential outliers that may influence the results more than other cases.

The data were then analysed using the *Amos 19* (Arbuckle, 2010) SEM program using Maximum Likelihood (ML) estimation of parameters. The parameter estimates derived from ML estimation are those that maximise the likelihood that the data (the observed covariances) match the proposed model. Maximum Likelihood estimation is the most commonly used estimation method in SEM (Kline, 2011).

Three main approaches can be taken in analysis of the covariance structure of theoretical models in SEM. These include strictly confirmatory, alternative model, and model generation approaches (Jöreskog, 1993). When using a strictly confirmatory approach a single model is specified *a priori*. Model fit is assessed using the chi-square statistic and fit indices. From results the model is confirmed or disconfirmed, without further modification (Byrne, 2010). When using an alternative model approach a number of theoretically consistent alternative models are developed and compared. Within this approach chi-square difference tests between the models are used to determine the model that best fits the data (Schumacker & Lomax, 2010).

The third, more common and exploratory approach, is that of model generation (Byrne, 2010). Within this approach an initial theoretical model is specified. However, if the data does not fit the hypothesised model, one or more model parameters may be re-specified. A specification search is undertaken, with the

standardised covariance residual matrix and modification indices examined to indicate relationships not adequately explained by the model. Theoretically justifiable paths are added or omitted from the model according to the specification search (Kline, 2011; Schumacker & Lomax, 2010). As the current study was somewhat exploratory in nature, a model generation approach was used in analyses. Paths were added or omitted when considered theoretically reasonable in the context of the training motivation, Self-Determination Theory (Deci & Ryan, 1985; 2000) and proactive motivation literatures.

Structural equation modelling techniques can simultaneously test the covariance structure of a measurement (factor analysis) and structural (path analysis) model with more than one outcome variable (a *full-information* estimation approach). While the measurement and structural aspects of the model can be analysed simultaneously in a single analysis, a multiple-step approach is recommended when the model contains latent variables with multiple observed indicators. This strategy facilitates the location of potential parameter misspecification to the measurement or the structural model when results indicate poor fit (Kline, 2011).

As depicted in Figure 3.3 the Proactive Motivation Processes and Antecedents model was a partially latent model. Largely represented by single indicator latent variables, the core Motivation and Goal Generation Processes aspect of the model was essentially a structural model that did not require the evaluation of a multiple indicator measurement model. To ensure that the measurement model for the single indicator latent variables was identified (with the *AMOS* program able to calculate unique estimates of parameters in the structural model), the specification of an estimate of the proportion of the variance in the single indicators that was due to

measurement error was required (Kline, 2011). The residual variances for the scales of the three single indicator latent variables were therefore fixed to a value that reflected the reliability of the measure, variance*(1 – scale reliability) (Hayduk, 1987).

The antecedent organisational context variables were multiple indicator latent variables with three observed indicators of both Positive Work Environment and Organisational Support. As recommended by Kline (2011) a two-step approach was therefore taken to the second stage analyses, with the measurement aspect of the model (the organisational context latent variables) evaluated in a confirmatory factor analysis (CFA) prior to evaluation of the structural model. The CFA evaluated the model in terms of the convergent and discriminant validity of the observed indicators on their respective latent variable and the measurement relationship between the Positive Work Environment and Organisational Support variables.

The model chi-square ($\chi^2$) statistic tested the difference between the predicted and observed relationships within the model. As a badness-of-fit statistic, the $\chi^2$ statistic tested the alternative hypothesis that there was a difference between the model implied and the sample covariance matrices at the .05 level (Cunningham, 2008). A combination of approximate fit indices more sensitive to model misspecification and less sensitive to distributional assumptions and sample size with the use of ML estimation provided additional information about the fit of the models to the data. These indices included the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and the Standardised Root Mean Square Residual (SRMR) (Hu & Bentler, 1998).

Based on the non-central chi-square distribution (under which a model is not 100%, but approximately true) the RMSEA (Steiger & Lind, 1980) is scaled as a

badness-of-fit index. Small RMSEA values are desirable as they represent small errors of approximation between the model-implied and sample covariances (Kline, 2011). Values less than .05 indicate a good fit of the model to the population. Values ranging from .05 to .08 are considered reasonable when reported with other fit indices (Schumacker & Lomax, 2010). Values between .08 and .10 indicate mediocre fit, while values greater than .10 indicate a poor fit. A 90% confidence interval (CI) around the RMSEA also indicates the precision of the estimate (Byrne, 2010). However, at smaller sample sizes ($N \leq 250$) the RMSEA tends to over-reject substantially true population models (Hu & Bentler, 1998).

Values of the CFI indicate the relative improvement in fit of the hypothesised model compared to the more restricted independence model which assumes zero correlations among the manifest variables in the model (Byrne, 2010; Kline, 2011). Values of the CFI coefficient range from zero to 1.00. Values close to .95 were used to represent a good-fitting model (Hu & Bentler, 1998).

The SRMR represents the average discrepancy between the sample observed and hypothesised correlation matrices. With a potential value range from zero to 1.00, SRMR values less than .05 were used to represent a good-fitting model that explained the correlations within a small average error (Byrne, 2010; Schumacker & Lomax, 2010).

The sample size ($N = 439$) was greater than the minimum of 200 cases recommended for the use of SEM techniques (Kline, 2011). The sample size was also adequate to test each of the full sample *a priori* hypothesised models according to the recommended minimum ratio of 10:1 cases to estimated parameters required to support the trustworthiness of results (Kline, 2011). For the first model the ratio

of cases to estimated parameters was 37:1. For the second model the ratio was 14:1 cases to parameters.

The *a priori* estimation of statistical power to detect a reasonably correct model corresponded to the RMSEA values of close model fit (.05 to .08) considered acceptable when reported with other fit indices (Schumacker & Lomax, 2010). Power was estimated for the sample size ($N$ = 439) and model degrees of freedom as a test of the close-fit hypothesis ($H_o$ = .05 and $H_a$ = .08) (MacCallum, Browne, & Sugawara, 1996). Power was calculated using SPSS RMSEA and power syntax from Schumacker and Lomax (p.107). The syntax can be viewed in Appendix F. The a priori power for the core Proactive Motivation and Goal Processes analysis was .68 ($N$ = 439, $df$ = 3, $p$ = .05). The a priori power for the full Proactive Motivation and Goal Processes and Antecedents model was ~.99 ($N$ = 439, $df$ = 47, $p$ = .05).

The research hypotheses for the variables included in the quantitative aspect of Study 1 were outlined in section 3.3 and were depicted in Figure 3.3. The *a priori* specified models were recursive, with uncorrelated disturbances and unidirectional regression paths. The models were therefore identified, with degrees of freedom ≥ 0 (Kline, 2011). The degrees of freedom were calculated as $df = ½\ k\ (k + 1) - t$, where $k$ is the number of observed variables in the model and $t$ is the number of parameters to be estimated (Cunningham, 2008).

Once the models were specified, as part of the model generation process an interactive process of the estimation, re-specification (where theoretically appropriate), and assessment of model fit and parameters was undertaken (Kline, 2011). The statistical significance of hypothesised indirect effects was assessed using bootstrapped ML standard errors (500 bootstrap samples; Byrne, 2010).

When the $\chi^2$ statistic and additional fit indices indicated that the model did not fit the data well, a specification search was undertaken to identify theoretically justifiable re-specification of parameters that may improve model fit (Kline, 2011). The Lagrange Multiplier modification indices (MI) were examined to determine whether the variance between the two variables could be explained by freeing a parameter in the model (Byrne, 2010). The chi-square difference statistic ($\chi^2_D$) was used to test the statistical significance of the improvement in fit from the initial to the nested model where parameters were re-specified.

**3.5.1 Analyses related to academic and general employees.** The analyses conducted across employee groups were undertaken to address hypothesis 3.7 that the core Proactive Motivation and Goal Generation model would be equivalent across academic and general employees. An initial series of independent sample *t*-tests were conducted to determine the equality of the model observed variable means across the two employee groups. Cohen's *d* (Cohen, 1988) measure of effect size provided an indication of the magnitude of the difference in variable mean scores between the groups. Further examination of group differences was undertaken using SEM multi-group invariance testing to determine whether the structural parameters in the model were equivalent across the groups.

The equivalence of the core Motivation and Goal Processes model parameters was examined one step at a time, by imposing a series of five increasingly restrictive sets of parameter constraints across the two groups. In order constraints were placed on the (a) measurement weights (factor loadings), (b) structural weights (path coefficients), (c) structural covariance of the exogenous Autonomous Motivation latent variable, (d) disturbance terms for the endogenous latent variables, and (e) measurement residuals (observed indicator residuals) (Byrne, 2010). For the

measurement residual model the residual values of the single indicator latent variables were constrained to be equal by fixing the value for both groups to that of the overall sample.

A configural model was first established, with identical parameters specified for each group. Parameter estimates were freely estimated (across group constraints were not applied) and calculated simultaneously for each group. This model functioned as the baseline comparison model, with the $\chi^2_M$ test statistic equal to the sum of the $\chi^2_M$ value for each group. The subsequent models were compared to the configural model using the $\chi^2_D$ test statistic. The difference between model CFI values ($CFI_D$) was also observed, with support for equivalence based on $CFI_D$ values less than .01 between the baseline and successive models (Byrne, 2010; Cheung & Rensvold, 2002). When the $\chi^2_D$ statistic was not statistically significant, indicating that the fit of the corresponding constrained model was not appreciably worse than that of the baseline model, the constraints were retained in the next analyses. The *a priori* power to test the core proactive motivation and goal processes multi-group configural model using the RMSEA close-fit hypothesis was .89 ($N$ = 439, $df$ = 6, $p$ = .05).

**3.6 Results**

This section presents the results of analyses for the Study 1 data. The descriptive statistics for all of the Study 1 variables are first presented including the Pearson's product moment inter-correlations. The first stage of the SEM analyses related to the core Proactive Motivation and Goal Generation Processes structural regression model is then discussed. Finally, the second stage of analyses are discussed, including the measurement model for the organisational context

antecedent variables, followed by the full Proactive Motivation Processes and Antecedent structural model.

**3.6.1 Descriptive statistics.** The number of items, means, standard deviations, range of scores, and Cronbach's alpha values for all variables in the study are presented in Table 3.1. The variable inter-correlations are shown in Table 3.2. Participants responded around or slightly above the midpoint of the Likert-type scales on most variables. Responses to the Identified Regulation variable were toward the upper-end of the scale. The Cronbach's alpha measure of internal consistency reliability for all of the scales, after removal of items with small (< .30) corrected item-total correlations, was above the acceptable level ($\alpha \geq .70$) recommended by DeVellis (2003).

From examination of bivariate scatterplots and normal probability plots of the standardised residuals, the relationships between the variables appeared to be linear and the distribution of the residuals uniform. Absolute values of skew and kurtosis for the variables in this study were below the criteria of 2 for skew (range -.03 to -1.07) and 7 (range .09 to .85) for kurtosis recommended as problematic values by Curran et al. (1996). Univariate outliers ($z = \pm 3.29$, $p < .001$) were identified for the overall sample on five variables (Intrinsic Benefits [2], Autonomous Motivation [3], Positive Reinforcement [4], Task Cues [2], and Social Cues [1]). However, a small number of outliers are not unexpected with a large sample size (Tabachnick & Fidell, 2007) and these cases were retained in the dataset for further screening. A review of the squared Mahalanobis distance values prior to each analysis showed minimal evidence of extreme multivariate outliers among the cases that may influence the results of the analysis more than any other case (Byrne, 2010).

Table 3.1

*Descriptive Statistics for the Study 1 Variables*

| Variable | No. of Items | M | SD | Actual Range[a] | α | Skew | Kurt |
|---|---|---|---|---|---|---|---|
| Goal Cues | 5 | 4.56 | 1.15 | 1.00-7.00 | .83 | -.38 | .25 |
| Social Cues | 10 | 4.69 | 0.94 | 1.00-7.00 | .85 | -.40 | .62 |
| Task Cues | 6 | 4.78 | 1.14 | 1.00-7.00 | .89 | -.37 | .18 |
| Positive Reinforcement | 7 | 4.90 | 0.99 | 1.00-7.00 | .83 | -.55 | .80 |
| Learning & Development | 3 | 5.08 | 1.29 | 1.00-7.00 | .74 | -.82 | .54 |
| Performance Appraisal | 3 | 4.91 | 1.43 | 1.00-7.00 | .79 | -.68 | -.02 |
| Career Opportunities | 3 | 4.37 | 1.52 | 1.00-7.00 | .80 | -.33 | -.57 |
| Intrinsic Motivation | 3 | 5.27 | 1.17 | 1.00-7.00 | .85 | -.68 | .57 |
| Identified Regulation | 3 | 5.94 | 1.07 | 2.00-7.00 | .83 | -1.07 | .85 |
| Intrinsic Benefits | 6 | 5.16 | 1.11 | 1.00-7.00 | .86 | -.61 | .69 |
| Extrinsic Benefits | 4 | 3.88 | 1.37 | 1.00-7.00 | .81 | -.03 | -.27 |
| Implementation Intentions | 11 | 5.21 | 1.10 | 1.00-7.00 | .93 | -.11 | .09 |

*Note*. $N$ = 439. [a] Potential range = 1.00-7.00. Kurt = Kurtosis.

The bivariate correlations between the continuous variables in Study 1 were statistically significant and in the positive direction. The correlation between Social Cues and Goal Cues ($r$ = .85) was above the .80 criterion for multicollinearity and at the level ($r$ = .85) above which Kline (2011) recommended SEM results may become statistically unstable. The correlation between Social Cues and Positive Reinforcement was also in the high .70's ($r$ = .78) and should raise a "red flag" (Meyers et al., 2006, p. 181). The strength of these relationships suggested a lack of discriminant validity between the variables (Kline, 2011). That is, one of the

variables was redundant in the model. While one approach that can be taken to address this redundancy is to combine highly correlated variables to create one variable, another approach is to omit one of the variables from analyses. As Social Cues was more highly correlated with both Positive Reinforcement and Task Cues than was Goal Cues, this variable was omitted as an indicator of the positive work environment latent variable. This approach was taken to maintain the structure of the variables as defined in prior research (i.e., Machin & Fogarty, 2004; Thayer & Teachout, 1995). Interestingly, the correlations between these variables were higher in the context of this study than those reported by Machin and Fogarty (2004).

Table 3.2

*Summary of Inter-correlations for Study 1 Variables*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Goal Cues | 1.00 | | | | | | | | | | | |
| 2. Social Cues | .85 | 1.00 | | | | | | | | | | |
| 3. Task Cues | .59 | .67 | 1.00 | | | | | | | | | |
| 4. Positive Reinforcement | .74 | .78 | .63 | 1.00 | | | | | | | | |
| 5. Learning & Development | .72 | .73 | .60 | .69 | 1.00 | | | | | | | |
| 6. Performance Appraisal | .68 | .61 | .46 | .52 | .70 | 1.00 | | | | | | |
| 7. Career Opportunities | .63 | .59 | .47 | .56 | .69 | .70 | 1.00 | | | | | |
| 8. Intrinsic Motivation | .29 | .30 | .32 | .47 | .38 | .24 | .24 | 1.00 | | | | |
| 9. Identified Regulation | .23 | .21 | .21 | .36 | .33 | .18 | .19 | .72 | 1.00 | | | |
| 10. Intrinsic Benefits | .33 | .35 | .31 | .51 | .43 | .23 | .29 | .62 | .53 | 1.00 | | |
| 11. Extrinsic Benefits | .41 | .39 | .34 | .50 | .41 | .31 | .48 | .40 | .29 | .54 | 1.00 | |
| 12. Implementation Intentions | .40 | .42 | .35 | .49 | .44 | .35 | .38 | .49 | .46 | .55 | .36 | 1.00 |

*Note*. All correlations significant at the $p$ =.01 level (2-tailed).

**3.6.2 Structural regression analyses.** A model generation approach was taken to test the hypotheses in this study. Structural equation modelling techniques were used to analyse the *a priori* structural regression model in two stages. As recommended by Boomsma (2000) the sequence of models progressed from the simplest (first stage) to the more complex (second stage).

The first stage of the analysis tested the structure of the core Motivation and Goal Generation Processes aspect of the model, as depicted in Figure 3.4. The equivalence of the model across academic and general employees was also tested. At the second stage of analysis the organisational context Positive Work Environment and Organisational Support latent variable measurement model was tested, after which the full antecedent model was tested. The model is depicted in Figure 3.6.

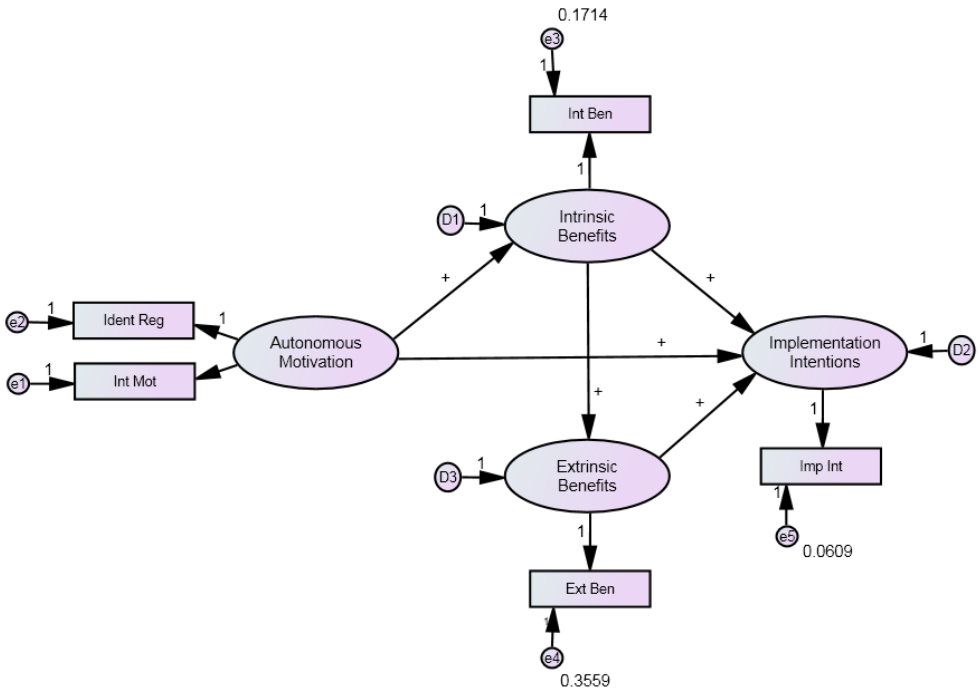


*Figure 3.4. a priori* hypothesised core Motivation and Goal Processes structural model.

***3.6.2.1 Core motivation and goal processes model.*** In review, the hypotheses captured by the core Motivation and Goal Generation Processes conceptual model that were central to the aims of this dissertation were as follows:

3.1. It was hypothesised that Autonomous Motivation would have a positive influence on Intrinsic Benefits.

3.2. It was hypothesised that Autonomous Motivation would have a positive influence on Transfer Implementation Intentions.

3.3. It was hypothesised that Intrinsic Benefits would have a positive influence on Extrinsic Benefits.

3.4. It was hypothesised that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions.

3.5. It was hypothesised that Extrinsic Benefits would have a positive influence on Transfer Implementation Intentions.

3.6. It was hypothesised that Autonomous Motivation would have a positive indirect influence on Implementation Intentions through its relationship with Intrinsic Benefits.

3.7 It was hypothesised that the core Proactive Motivation and Goal Generation model would be equivalent across academic and general employees.

The core Motivation and Goal Processes model fit the data well, $\chi^2$ (3) = 5.73, $p$ = .13 (CFI = .99; RMSEA = .03, 90% CI [.00, .08]; SRMR = .01). The maximum-likelihood estimates for all but one of the parameters in the model were significantly different from zero and in the expected direction. The unstandardised path coefficient for the path from Extrinsic Benefits to Implementation Intentions was non-significant ($B$ = .02, $p$ = .75). The unstandardised path coefficients with

standard errors are presented in Table 3.3. The hypothesised model with standardised parameter coefficients is presented in Figure 3.5.

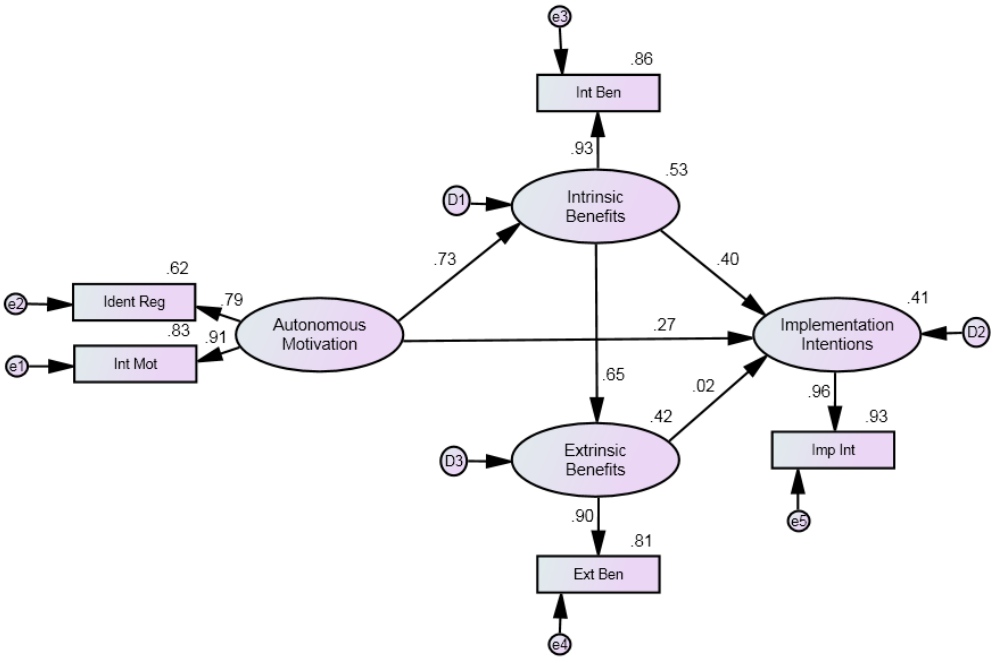


*Figure 3.5. a priori* core Motivation and Goal Processes structural model with standardised coefficients.

Further to a direct influence, Autonomous Motivation also had a significant indirect influence on Implementation Intentions (.25, $z = 4.17$, $p < .001$). As the relationship between Extrinsic Benefits and Implementation Intentions was non-significant in the model this indirect influence occurred through its relationship with Intrinsic Benefits. Autonomous Motivation and Intrinsic Benefits accounted for 41% of the variance in Implementation Intentions.

Table 3.3

*Coefficients for Hypothesised Direct and Indirect Effects for Core Motivation and Goal Processes Model*

| | Path coefficients | | | |
|---|---|---|---|---|
| Variable | Unstd | SE | Std | $R^2$ |
| *Intrinsic Benefits*[a] | | | | .53 |
| Autonomous Motivation | .70*** | .05 | .73 | |
| *Extrinsic Benefits*[a] | | | | .42 |
| Intrinsic Benefits | .78*** | .06 | .65 | |
| *Implementation Intentions*[a] | | | | .41 |
| *Direct* | | | | |
| Autonomous Motivation | .23*** | .06 | .27 | |
| Intrinsic Benefits | .35*** | .08 | .40 | |
| Extrinsic Benefits | .02 | .05 | .02 | |
| *Indirect*[b] | | | | |
| Autonomous Motivation | .25*** | .06 | .30 | |
| *Total*[b] | | | | |
| Autonomous Motivation | .48*** | .05 | .58 | |

*Note*. $N$ = 439. Unstd = Unstandardised. SE = standard error. Std = standardised. $R^2$ = squared multiple correlation. [a] *Italicised* variable = criterion variable.

[b]Bootstrapped ML standard errors. *** $p < .001$.

***3.6.2.2 Analyses related to academic and general employee groups.*** The analyses conducted between academic and general employees concerned hypothesis 7 related to the equivalence of the core Proactive Motivation and Goal Generation Processes model across the two groups. A series of independent sample t-tests explored mean score difference between academic and general employees on the observed Intrinsic Motivation, Identified Regulation, Intrinsic Benefits, Extrinsic Benefits, and Implementation Intentions variables. A multi-group analysis of the

core motivation and goal processes structural model was then undertaken to ascertain whether perceptions of the motivation and goal processes differed across the employee groups.

Levene's tests for homogeneity of variance examined prior to conducting the independent sample t-tests were non-significant, and suggested that equal variances between the groups could be assumed (Field, 2009). Full descriptive statistics including the variable inter-correlations for the academic and general employee groups are shown in Appendix G.

The results of the independent sample t-tests showed that academic employees reported lower mean scores for the motivation and goal processes variables than did general employees. On average, academic employees perceived lower levels of Intrinsic Motivation ($M$ = 4.88, $SD$ = 1.21) than did general employees ($M$ = 5.43, $SD$ = 1.12), $t$ (437) = -4.53, $p < .01$. Academic employees also perceived fewer Intrinsic Benefits associated with participation in non-mandatory PD ($M$ = 4.87, $SD$ = 1.18) than did general employees ($M$ = 5.28, $SD$ = 1.05), $t$ (437) = -3.62, $p < .01$. These differences represented medium-sized effects (Cohen's $d$ = -.47 and -.37 respectively).

Academic employees also perceived fewer Extrinsic Benefits associated with participation in non-mandatory PD ($M$ = 3.62, $SD$ = 1.31) than did general employees ($M$ = 3.99, $SD$ = 1.38). This difference was significant, $t$ (437) = -2.59, $p < .05$. Mean levels of Implementation Intentions were also lower for academic employees ($M$ = 5.06, $SD$ = 0.96) than for general employees ($M$ = 5.27, $SD$ = 0.92), $t$ (437) = -2.22, $p < .05$. These differences represented small-sized effects (Cohen's $d$ = -.28 and -.23 respectively). Academic and general employees perceived similar

levels of Identified Regulation toward participation in non-mandatory PD ($M$ = 5.85, $SD$ = 1.08 and $M$ = 5.97, $SD$ = 1.07 respectively), $t$ (437) = -1.09, $p$ = .27.

With significant mean differences found between academic and general employees on all but one of the observed variables, further analyses were conducted to determine whether the core motivation and goal generation processes operated in a similar way for the two employee groups. Structural equation modelling multi-group invariance testing was conducted to examine the equivalence of the structural model across the groups. Results related to the goodness-of-fit statistics for the model invariance testing are reported. The baseline model results for academic and general employees are provided in Appendix H.

To test the equivalence of the model across academic and general employees, five consecutive models were compared to a configural baseline model using the chi-square difference test ($\chi^2_D$). The configural model was specified with identical parameters to be estimated. The parameters for both employee groups were calculated simultaneously, with equality constraints not imposed. The resulting chi-square statistic equalled the sum of the chi-square values for the separate baseline models, with $\chi^2$ (6) = 6.22, $p$ = .40 (academic employee $\chi^2$ (3) = 2.71, $p$ = .44; general employee $\chi^2$ (3) = 3.51, $p$ = .32). This value and the model CFI value (CFI = 1.00) acted as the baseline against which the increasingly restrictive equality constrained models were compared (Byrne, 2010). The equivalence of the parameters in the model was examined one step at a time, with one set of parameters constrained at each step (Byrne, 2010). Chi-square, CFI, and difference values for the consecutive equality constrained multi-group models are shown in Table 3.4.

Table 3.4

*Goodness-of-fit Statistics for Equality Constrained Core Motivation and Goal Processes Model across Academic and General Employees*

| Equality constraints | $\chi^2_M$ | $df_M$ | $p$ | $\chi^2_D$ | $df_D$ | $\chi^2_D$ $p$ | CFI | $CFI_D$ |
|---|---|---|---|---|---|---|---|---|
| 1.1. Configural model (unconstrained) | 6.22 | 6 | .40 | - | | - | 1.00 | - |
| 1.2. Measurement weights | 6.29 | 7 | .51 | 0.07 | 1 | .79 | 1.00 | .00 |
| 1.3. 1.2 and structural weights | 10.89 | 12 | .54 | 4.67 | 6 | .59 | 1.00 | .00 |
| 1.4. 1.3 and structural covariances | 10.90 | 13 | .62 | 4.68 | 7 | .69 | 1.00 | .00 |
| 1.5. 1.4 and structural residuals | 15.35 | 16 | .49 | 9.13 | 10 | .52 | 1.00 | .00 |
| 1.6. 1.5 and m'ment residuals | 23.45 | 18 | .17 | 17.23 | 12 | .14 | 0.99 | .01 |

*Note*. $\chi^2_D$ = difference in $\chi^2$ values between models. $df_D$ = difference in degrees of freedom between models. $CFI_D$ = difference in CFI values between models.

The first model to be tested was the measurement weights model (1.2.) with factor loadings of the indicator variables constrained to be equal (the Intrinsic Motivation indicator factor loading was constrained. The other factor loadings had been scaled to be 1). A non-significant chi-square difference value between the configural and the measurements weights model indicated that the factor loading was operating equivalently across the groups, $\chi^2_D(1) = 0.07$, $p = .79$.

The factor loading equality constraint was retained in the test of the structural weights model (1.3.). For this model the structural regression paths were constrained to be equal across the groups. The structural weights model was also equivalent across the groups, $\chi^2_D(6) = 4.68$, $p = .59$. These equality constraints were also retained in subsequent analyses. The chi-square difference tests for the subsequent three tests of equivalence were also non-significant. The structural covariances model (1.4.) with $\chi^2_D$

(7) = 4.69, $p$ = .70. The structural residuals model with (1.5.), $\chi^2_D(10) = 9.14$, $p$ = .52. The measurement residuals model (1.6.), retaining all prior constraints, was also non-significant, $\chi^2_D(12) = 17.39$, $p$ = .14. With values less than the criterion of .01 for all but the most stringent measurement residuals model, the CFI difference values also provided support for the equivalence of the model parameters across the groups (Cheung & Rensvold, 2002).

***3.6.2.3 Organisational context antecedent model.*** As outlined in section 3.6.2, a two-step approach to analysis was undertaken for the full Proactive Motivation Processes and Antecedent model. At the first step, the relationship between the organisational context antecedent variables, Positive Work Environment and Organisational Support, was analysed using Confirmatory Factor Analysis (CFA). At the second step, the antecedent model was tested to determine the degree to which Positive Work Environment influenced both Autonomous Motivation and Transfer Implementation Intentions. The full *a priori* Proactive Motivation and Antecedents model showing the hypothesised relationships examined in this analysis is depicted in Figure 3.6. The nature of the hypothesised relationships is indicated by the sign next to each path.

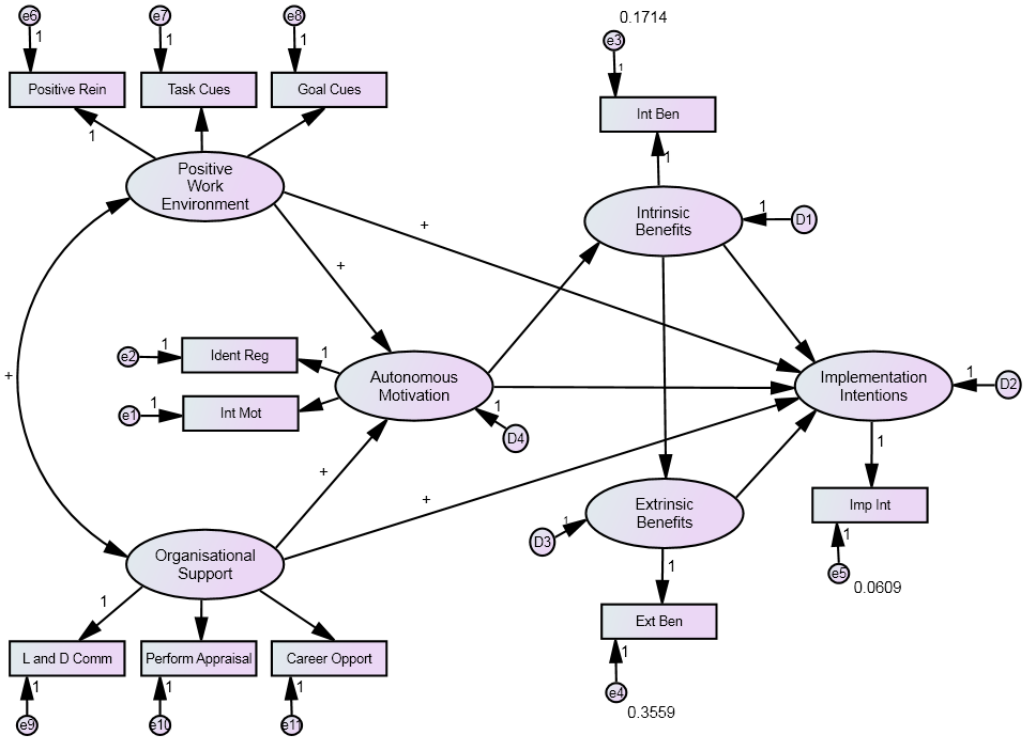


*Figure 3.6.* Full Proactive Motivation and Antecedents model showing hypothesised antecedent relationships.

In review, the hypotheses captured by the organisational context aspect of the conceptual model that were central to the aims of this dissertation were as follows:

3.8. It was hypothesised that the correlations between the Positive Work Environment and Organisational Support latent variables would be positive.

3.9. It was hypothesised that Positive Work Environment and Organisational Supports would have a positive influence on both Autonomous Motivation and Transfer Implementation Intentions.

3.10. It was hypothesised that Positive Work Environment and Organisational Support would have an indirect influence on Transfer Implementations.

The first step in the full model analysis was to conduct a CFA to assess the organisational context measurement model. The model was tested in terms of the

convergent validity of the observed indicator variables related to the Positive Work Environment and Organisational Support variables and the discriminant validity of the relationships between the latent Positive Work Environment and Organisational Support variables (Schreiber, 2008).

The antecedent measurement model did not fit the data well, with $\chi^2$ (8) = 59.70, $p < .001$ (CFI = .97; RMSEA = .12, 90% CI [.09, .15]; SRMR = .03). The unstandardised estimates for the model parameters, including regression weights, variances, and the covariance between the latent variables were significant at the .01 level. The model with standardised parameter estimates is shown in Figure 3.7.

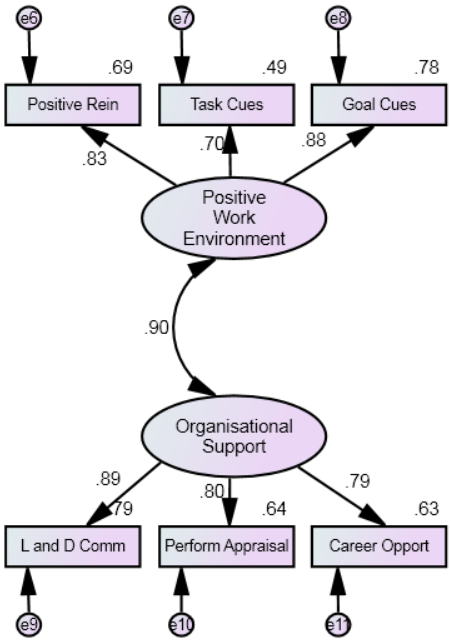


*Figure 3.7.* Standardised parameter estimates for the organisational context variable measurement model.

The value of the standardised factor loading for the indicators of Positive Work Environment (λ range = .70 to .88) and Organisational Support (λ range = .79 to .89) were uniformly high which suggested convergent validity of the three corresponding indicators on the two latent variables (Kline, 2011). However, the correlation

coefficient between the Positive Work Environment and Organisational Supports latent variables ($r$ = .90) was at the criterion for singularity and indicated a lack of discriminant validity between these variables (Kline, 2011).

Structural equation modelling results may become unstable with the inclusion of redundant variables (Kline, 2011). One approach that can be taken to address highly correlated variables is to combine the measures as indicators of one latent variable (Byrne, 2010). A second approach is to omit one of the variables from the model (Kline, 2011). To retain the Positive Work Environment construct as defined by Machin and Fogarty (2004) the second approach was taken in this study.

To determine which variable to retain as an organisational context variable, two separate non-nested models were specified and the model fit for each examined. One model was specified with Positive Work Environment as the organisational context antecedent to the motivation and goal generation processes. The second model was specified with Organisational Supports as the antecedent. Additional model selection indices for the comparison of non-nested models helped determine the variable to retain in the model. Specifically, with the same number of parameters specified in both of the models, smaller Akaike information criterion (AIC) and the ML estimation expected cross-validation index (MECVI; Brown & Cudeck, 1993) were used to select the model with the highest generalizability to samples with the same $N$ drawn from the same population (West, Taylor, & Wu, 2012).

The Positive Work Environment model provided a the better fit to the data, with $\chi^2$ (14) = 37.28, $p$ = .001 (CFI = .99; RMSEA = .06, 90% CI [.04, .09]; SRMR = .03; AIC = 81.28; MECVI = .19) than the Organisational Support model, with $\chi^2$ (14) = 79.75, $p$ < .001 (CFI = .96; RMSEA = .10, 90% CI [.08, .13]; SRMR = .04;

AIC = 123.75; MECVI = .29). The Organisational Support variable was subsequently omitted from the model and Positive Work Environment was retained.

During the model comparison process, each model was re-specified with two additional paths, with model selection based on this nested model. The process of re-specification is detailed next for the Positive Work Environment antecedent model. The model with standardised coefficients is shown in Figure 3.8. Results for the re-specified Organisational Support model are provided in Appendix I.

The power to test the revised model RMSEA close-fit hypothesis was adequate (> .95), with $n$ = 439, $df$ = 16, $p$ = .05. The model did not fit the data well, with $\chi^2$ (16) = 103.52, $p$ < .001 (CFI = .95; RMSEA = .11, 90% CI [.09, .13]; SRMR = .08).

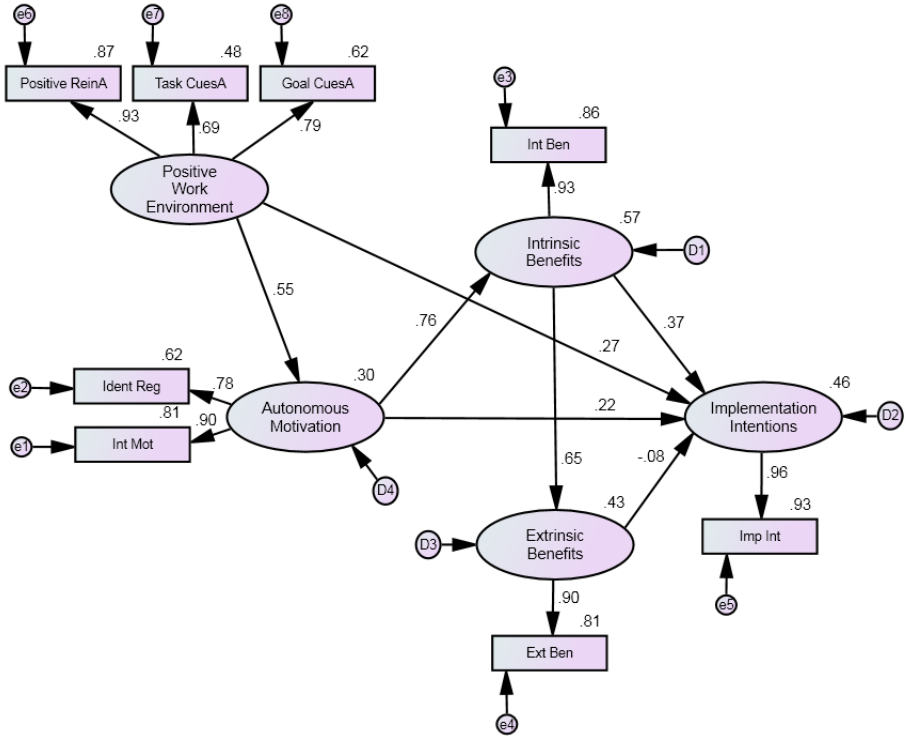


*Figure 3.8.* Revised Proactive Motivation Processes and Antecedent structural model with standardised coefficients.

To ascertain the source of possible misfit between the data and the specified model a specification search was undertaken. The Langrange Multiplier MIs suggested that the addition of a path from Positive Work Environment to Extrinsic Benefits would decrease the $\chi^2_M$ by at least 27.12 for a decrease of one degree of freedom if the path was freely estimated. The MIs also suggested that the addition of a path between Positive Work Environment and Intrinsic Benefits would decrease the $\chi^2_M$ by at least 19.11.

While caution is suggested in the freeing of parameters using MIs (Kline, 2011) specified paths between Positive Work Environment and the two Benefit variables were considered reasonable modifications. As non-mandatory PD was provided by the organisation and what is learned during PD potentially used within the organisation, a positive, supportive work environment could reasonably be expected to influence perceptions of future benefits. The difference in the fit of the model to the data was tested after the specification of each path. Power ($n$ = 439, $df$ = 14, $p$ = .05) to test the RMSEA close-fit hypothesis remained at an acceptable level (> .95) with the addition of two paths and subsequent reduction of two degrees-of-freedom. The paths were subsequently added to the model.

The first path to be added to the model was that from Positive Work Environment to Extrinsic Benefits. As expected, the model fit improved, $\chi^2$ (15) = 61.71, $p$ < .001 (CFI = .97; RMSEA = .08, 90% CI [.06, .11]; SRMR = .05). The chi-square difference between the models was significant, $\chi^2_D$ (1) = 47.92, $p$ < .001 and the path from Positive Work Environment to Extrinsic Benefits was retained.

The second path to be added was that from Positive Work Environment to Intrinsic Benefits. Once again the model fit improved, $\chi^2$ (14) = 37.28, $p$ = .001 (CFI = .97; RMSEA = .06, 90% CI [.04, .09]; SRMR = .03). The chi-square difference

between the first and second nested models was significant, $\chi^2_D(1) = 24.43$, $p < .001$. The standardised residual covariance values for the second nested model were less than 2.58 ($p = .01$) indicating that the model adequately accounted for the shared variance between the observed variables in the model (Byrne, 2010; Schumacker & Lomax, 2010). The final nested antecedent model including standardised parameter coefficients is presented in Figure 3.9. The unstandardised path coefficients with standard errors are presented in Table 3.5.

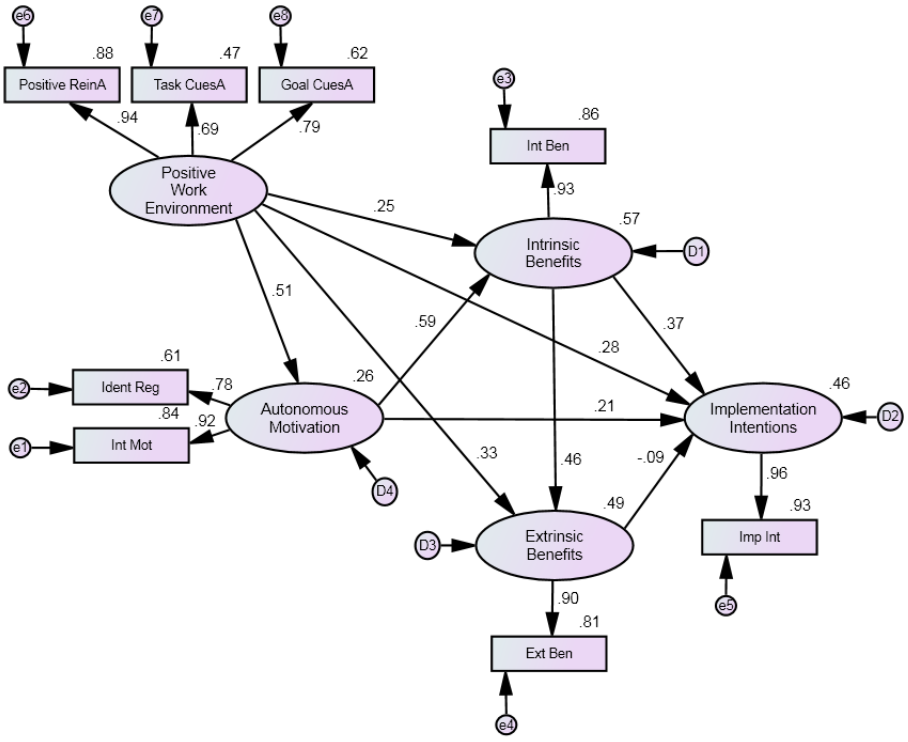


*Figure 3.9.* Final nested Proactive Motivation Processes and Antecedent model with standardised coefficients.

The unstandardised path coefficients for the paths from Positive Work Environment to both Autonomous Motivation and Transfer Implementation Intentions were significant and in the positive direction. The paths coefficients for the re-specified paths from Positive Work Environment to both Intrinsic Benefits and Extrinsic Benefits were also in the positive direction.

Further to the direct influences identified in the model, Positive Work Environment also had a significant indirect influence on Transfer Implementation Intentions through its relationships with the motivation and goal generation processes variables (.25, $z = 5.00$, $p < .001$). The model explained 46% of the variance in Transfer Implementation Intentions.

Table 3.5

*Coefficients for Final Nested Core Motivation and Goal Processes Antecedent Model*

| | Path coefficients | | | |
|---|---|---|---|---|
| Variable | Unstd | SE | Std | $R^2$ |
| *Autonomous Motivation*[a] | | | | .26 |
| Positive Work Environment | .59*** | .06 | .51 | |
| *Intrinsic Benefits*[a] | | | | .57 |
| Positive Work Environment | .28*** | .06 | .25 | |
| Autonomous Motivation | .56*** | .05 | .59 | |
| *Extrinsic Benefits*[a] | | | | .49 |
| Positive Work Environment | .44*** | .08 | .33 | |
| Intrinsic Benefits | .55*** | .07 | .46 | |
| *Implementation Intentions*[a] | | | | .46 |
| *Direct* | | | | |
| Positive Work Environment | .27*** | .05 | .28 | |
| Autonomous Motivation | .17** | .06 | .21 | |
| Intrinsic Benefits | .32*** | .07 | .37 | |
| Extrinsic Benefits | - .07 | .05 | -.09 | |
| *Indirect*[b] | | | | |
| Positive Work Environment | .25*** | .05 | .25 | |
| Autonomous Motivation | .16*** | .05 | .19 | |
| *Total*[b] | | | | |
| Positive Work Environment | .52*** | .06 | .54 | |
| Autonomous Motivation | .33*** | .06 | .40 | |

*Note*. $N$ = 439. Unstd = Unstandardised. SE = standard error. Std = standardised. $R^2$ = squared multiple correlation. [a] *Italicised* variable = criterion variable.
[b] Bootstrapped ML standard errors. ** $p < .01$. *** $p < .001$.

### 3.7 Discussion

The aim of Study 1 was to examine a model of the proactive motivation and goals generation processes energising employees' participation in non-mandatory PD

and their transfer implementation intentions. The model was based on core aspects of the Model of Proactive Motivation Process and Antecedents proposed by Parker et al. (2010). The relationships in the model were consistent with Self-Determination Theory (Deci & Ryan, 1985) and the reviewed training and development literature. Employees' self-initiated participation in non-mandatory PD was seen as a future-focussed step to gain skills and knowledge that facilitate change that contributes to a different future; a future facilitated by the intention to implement strategies that may facilitate the use of what is learned in the workplace.

Prior research related to the choice to participate in voluntary activities has largely emphasised the strength of motivation, or "how motivated" employees are in terms of the intention or desire to learn the content of activities. This study sought to extend this research with an examination of the quality of both motivation and goals in a context where participation in PD provided within a work organisation was largely self-initiated.

An overall conceptual model of the proposed relationships among the study variables was presented in Figure 3.3. The model was specified to examine the influence of training related organisational context variables (Positive Work Environment, Organisational Support) and employees' Autonomous Motivation for participation in non-mandatory PD on the proactive goals (Intrinsic Benefits, Extrinsic Benefits) leading to employees' intention to use strategies to facilitate the use of what is learned in the workplace (Transfer Implementation Intentions). The model was examined in two stages, with the organisational context variables added at the second stage in a model building process that progressed from the simplest to the more complex model. The proposed relationships among the variables in the first and second stages were presented in Figures 3.4 and 3.6 respectively.

In a test of hypotheses 3.1 to 3.7, the first stage of analysis examined the influence of Autonomous Motivation, Intrinsic Benefits, and Extrinsic Benefits on employees' Transfer Implementation Intentions. The equivalence of this core Motivation and Goal Processes model was also tested across academic and general employee groups.

The second stage of analysis involved an initial assessment of the antecedent organisational context variable measurement model (Positive Work Environment and Organisational Support), followed by an examination of the influence of the organisational context variables on the Proactive Motivation and Goal Generation Processes aspect of the model in a test of hypotheses 3.8 to 3.10.

In terms of the overall model, results suggested that the intention of employees' who participate in non-mandatory PD to implement strategies to facilitate the use of what they learn in PD in the workplace (Transfer Implementation Intentions) is energised by the future personal development benefits (Intrinsic Benefits) they envision will come from participation and valuing these activities as inherently interesting and important (Autonomous Motivation). A training-related organisational context (Positive Work Environment) was shown to support these proactive motivation and goal generation processes.

The results of the first stage of analysis provided support for the fit of the core Proactive Motivation and Goal Generation model to the data. Hypothesis 3.1 that Autonomous Motivation would have a positive influence on Intrinsic Benefits was supported, as was hypothesis 3.2 that Autonomous Motivation would have a positive influence on Transfer Implementation Intentions. These results suggested that the greater employees' Autonomous Motivation for non-mandatory PD, the more they

envision Intrinsic Benefits are facilitated by participation and the greater their Transfer Implementation Intentions.

Sheldon and Kasser (1995) also found an association between autonomous motivation toward personal strivings and the pursuit of intrinsic benefits. Maurer et al. (2003) found an association between intrinsic benefits and an interest in participation in work-related development activities in general. A number of researchers (e.g., Koestner et al., 2006, 2008; Sheldon & Elliot, 1998) have also demonstrated a positive influence of autonomous motivation on implementation plans and progress toward personal goals, while in the training and development context Gegenfurtner et al. (2010) found that autonomous motivation for transfer influenced transfer implementation intentions in the post-training environment. The results of the current study extended this prior research to a context of self-initiated participation in non-mandatory PD.

Hypothesis 3.3 that Intrinsic Benefits would have a positive influence on Extrinsic Benefits was also supported. The more employees' envisioned Intrinsic Benefits from participation in non-mandatory PD, the more they also envisioned Extrinsic Benefits. The current result suggested that when PD is non-mandatory and participation self-initiated by employees themselves the personal development envisioned will come from these activities influences the extent to which extrinsic benefits are envisioned, as a secondary outcome. As extrinsic outcomes in the workplace are not contingent of participation in non-mandatory PD, these outcomes are not the most salient benefit envisioned by employees. This result extended the work of Maurer et al. (2003) who suggested that these variables be examined further having found that Intrinsic Benefits influenced employees' involvement in development activities in general, while Extrinsic Benefits did not.

Hypothesis 3.4 that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions was also supported. This result suggested that the more employees' envisioned Intrinsic Benefits to be associated with participation in non-mandatory PD, the greater their intention to implement strategies to facilitate the use of what is learned in the workplace. This result extended the work of a number of researchers (e.g., Koestner et al., 2006, 2008; Sheldon & Elliot, 1999; Vansteenkiste, Simons, Lens, Sheldon, et al., 2004) who have demonstrated that individuals' who pursue more self-concordant personal and educational goals are likely to implement plans to achieve those goals and sustain effort toward those goals.

Hypothesis 3.5 proposed that Extrinsic Benefits would have a positive influence on Transfer Implementation Intentions. While prior research has demonstrated an expectation that extrinsic benefits will come from participation in work-focussed training and development in general (e.g., Mathieu et al., 1992; Noe & Schmitt, 1986; Tharenou, 2001), this hypothesis was not supported in the non-mandatory context of the current study.

Maurer et al. (2003) found Intrinsic Benefits to be more strongly associated with involvement in employee development in general, than were Extrinsic Benefits. The results of the current study (hypothesis 3.3) suggested that employees' who self-initiate participation in non-mandatory PD expected that Extrinsic Benefits would be derived from participation as a secondary outcome. One explanation for this result from an SDT perspective is that with participation in non-mandatory PD not controlled by the loss or gain of pay or career outcomes, the functional significance derived from these activities is likely to be *informational* (supporting autonomy and promoting competence, and potentially relatedness) with future aspirations in the

first instance intrinsic, rather than extrinsic (Vansteenkiste et al., 2010). Therefore, while important considerations (Rynes et al., 2004) and potentially valued outcomes, extrinsic benefits may not be salient to employees' plans to use what is learned in the first instance. Another explanation may be that the non-mandatory nature of these activities framed them as unimportant to the extrinsic outcomes that the organisation offers (Baldwin & Magjuka, 1991; Tsai & Tai, 2003). The benefits derived from participation in non-mandatory PD were explored further in the qualitative aspect of Study 1.

Hypothesis 3.6, that Autonomous Motivation would also have an indirect influence on Transfer Implementation Intentions through its relationship with Intrinsic Benefits was also supported. This result suggested that while both Autonomous Motivation and Intrinsic Benefits made unique contributions to employees' Transfer Implementation Intentions, some of the influence of Autonomous Motivation occurred through its relationship with Intrinsic Benefits. That is, employees who are more autonomously motivated toward participation in non-mandatory PD are more likely to implement strategies to facilitate the use of what is learned both because they are autonomously motivated to participate and because when autonomously motivated they also perceive greater intrinsic benefits to be associated with participation.

Hypothesis 3.7 that the core Proactive Motivation and Goal Generation model would be equivalent across academic and general employees was supported. While generally lower mean scores on the observed variables were reported by academic employees, the model provided an adequate representation of the proactive motivation processes for both academic and general employees. This result suggested that while different roles were undertaken by employees of the

organisation, the proactive process surrounding their largely self-initiated participation in non-mandatory PD was perceived in a similar way across employee groups. The implication of this result was that the model generalised across the groups and could be applied across the organisation as a whole.

Having established model fit for the core motivation and goal generation processes aspect of the model, the organisational context variables were added to the model in the second stage of analysis. An initial CFA of the measurement model tested hypothesis 3.8 that the correlation between the Positive Work Environment and Organisational Support latent variables would be positive. This hypothesis was supported. However, the strength of the association ($r$ = .90) suggested a lack of discriminant validity between these variables; they were perceived as very similar constructs, with one of the variables redundant to the model.

A comparison of model fit and selection indices for two separate models (one with Positive Work Environment as the organisational context antecedent, one with Organisational Support) suggested that the Positive Work Environment model was a better fit to the data and held the highest generalizability to similar samples (West et al., 2012). Positive Work Environment was subsequently retained in the model. The revised model was depicted in Figure 3.8.

The revised model did not fit the data well. Two theoretically justifiable paths (Positive Work Environment to both Intrinsic Benefits and Extrinsic Benefits) were subsequently specified in the model. Hypothesis 3.9 that Positive Work Environment would have a positive influence on both Autonomous Motivation and Transfer Implementation Intentions was supported. This result was consistent with the SDT proposition that perceptions of an autonomy-supportive environment elicit and maintain autonomous motivation rather than subdue and diminish it (Deci &

Ryan, 1987; Ryan & Deci, 2000a). Vansteenkiste, Simons, Lens, Sheldon, et al. (2004) also found that an autonomy-supportive environment facilitated more free-choice persistence toward goals after participation in learning activities.

More specifically, the results of the current study suggested that in the context of self-initiated participation in non-mandatory PD, a work environment perceived as autonomy-supportive is likely to influence the quality of employees' motivation to participate in non-mandatory activities, in terms of an autonomous reason to participate. This result extended the work of a number of researchers (e.g., Colquitt et al., 2000; Maurer & Tarulli, 1994) that has demonstrated that a supportive training and development related organisational context influenced pre-training motivation in terms of how motivated employees are toward training (Mathieu & Martineau, 1997) and what they will do in terms of a desire to apply effort during training (Noe, 1986; Tracey et al., 2001). With the specification of the two additional paths, Positive Work Environment had a direct influence on each aspect of the Proactive Motivation and Goal Generation Processes model.

In support of hypothesis 3.10, Positive Work Environment also demonstrated an indirect influence on Transfer Implementation Intentions through its influence on both Autonomous Motivation and Intrinsic Benefits. Prior research (e.g., Baard et al., 2004; Roca & Gagné, 2008) has also demonstrated that an autonomy-supportive work environment facilitates autonomous motivation and subsequent initiation of activities and job performance. The results of the current research demonstrated similar relationships with employees' Transfer Implementation Intentions, as planned strategies that facilitate the use of what is learned in the workplace.

### 3.8 Implications of the Study 1 Quantitative Results

The results of the quantitative aspect of Study 1 provided initial support for motivation to participate in non-mandatory PD as a proactive, self-determined process that is influenced by a more positive training transfer climate. This process involved a compelling autonomous "reason to" participate that influenced the envisioning of a different future and the planning of strategies to facilitate the transfer of training to the workplace. By placing motivation to participate in PD in a proactive motivation framework that incorporated an SDT perspective, this study took an initial step toward a deeper understanding of an important aspect of the multi-faceted training motivation concept (Salas & Cannon-Bowers, 2001). It also placed Transfer Implementation Intentions as an important transfer-related aspect of the motivational process surrounding participation in non-mandatory PD.

The results provided a degree of support for the concordance between more autonomous motivation, intrinsic goals and aspirations, and goal progress demonstrated in the SDT literature (e.g., Koestner et al., 2006, 2008; Vansteenkiste, Simons, Lens, Sheldon, et al., 2004). The results also provided support for the central role of goals demonstrated in the training and development (Colquitt et al., 2000; Latham, 2007) and proactive work motivation (Bindl & Parker, 2010; Parker et al., 2010) literature. However, when PD is non-mandatory the most salient future anticipated by employees' is likely to be intrinsic, rather than extrinsic.

The results suggest that within the organisation studied an intervention focussed on the provision of a positive work environment will facilitate the proactive motivation and goal processes energising employees' participation in non-mandatory PD. This would include the management of goal cues, social cues, and task cues to

facilitate the use of what is learned in non-mandatory PD, combined with positive reinforcement for using what is learned.

Further, framing participation in non-mandatory PD and goal-setting activities in terms of the future personal benefits that may be envisioned to come from these activities may enhance employees' intention to implement strategies to facilitate the application of what they learn to the workplace (Vansteenkiste, Simons, Lens, Sheldon, et al., 2004). The functional significance provided by such a strategy is likely to be perceived by employees as *informational*, providing support for the psychological needs of autonomy, competence, and relatedness. From an SDT perspective, the results of this study suggest that such a strategy is likely to facilitate employees' sense of choice and responsibility, not only in terms of sustained participation, but also in terms of an initial step toward using what is learned in the workplace.

### 3.9 Limitations of the Study 1 Quantitative Study

A potential limitation of the study was that data were collected using self-report. This strategy seemed appropriate because the focus of the study was employees' self-perceived motivations, attitudes, and intentions (Gegenfurtner et al., 2010). Several procedural strategies were used to minimise potential common-method and response-bias (Podsakoff et al., 2012).

To facilitate accuracy in responses, participation in the research was voluntary and participants were encouraged to be open in providing their views. The social-desirability of answers was not considered to be potentially serious for several reasons. While conducted within the work organisation, participants were informed that their responses were anonymous and access to the online survey was at a location (e.g., home or work) and time of their choosing. Further, the information

requested was not overly-sensitive, with participation in non-mandatory PD not explicitly linked to work or organisational reward. A proximal separation of survey items was also provided by placing three semi-structured qualitative response-mode questions within the body of the survey (between the organisational context and motivational items and the goal generation items) to help eliminate the retrieval of cues from prior items (Podsakoff et al., 2012).

As an initial study, another potential limitation of Study 1 is the generalisation of results to employees in other organisations. The study would therefore benefit from replication in a different sample of employees. Key aspects of the core proactive motivation and goal generation processes model were examined in Study 2 across a heterogeneous sample of employees (organisation non-specific) as part of a model informed by both the quantitative and qualitative aspects of Study 1.

### 3.10 Looking Forward

In relation to further research, the Study 1 quantitative analysis did not measure employees' views about the contribution of non-mandatory PD to the transfer of what is learned to the workplace as part of the proactive motivation and goal generation processes model. Within SDT, the inherent satisfaction gained from autonomously motivated behaviour is derived from experiences of autonomy, competence, and relatedness (Deci & Ryan, 2000). Further to this quantitative study, a supplementary qualitative analysis of employees' views about the contribution of PD to their work in terms of these basic psychological needs was undertaken.

The results related to hypotheses 3.5 and 3.8 were also explored further in a series of five focus groups. Extrinsic Benefits was shown not to influence Transfer Implementation Intentions (hypothesis 3.5). Organisational Supports were also excluded as an organisational context factor in the second stage of model analysis

(related to hypothesis 3.8). These results informed an exploration of employees' views about non-mandatory PD and their career within the organisation. These two sets of supplementary information are discussed in Chapter 4. Results from both the quantitative and qualitative aspects of Study 1 informed the development of Study 2, discussed in Chapter 5.

# Chapter 4 – Qualitative Aspect of Study 1

This chapter presents an exploration of the qualitative aspect of the research program. Following the introduction, an overall description of the qualitative method undertaken and findings are presented. Then the basic needs survey question method and findings are discussed, followed by the focus group method and findings. Finally, a combined discussion of results is presented.

## 4.1 Introduction

Proactive behaviour can be defined as "self-directed and future-focussed action in an organisation in which the individual aims to bring about change, including change to the situation (e.g., introducing new work methods, influencing organizational strategy) and/or change within him- or herself (e.g., learning new skills to cope with future demands)" (Bindl & Parker, 2010, p. 568). Emphasised in this definition is the taking control of a situation in anticipation of future events (Bindl & Parker, 2010).

Study 1 presented a model of proactive motivation for participation in non-mandatory PD that measured participants' motivation to take action to bring about personal change by participating in non-mandatory PD to learn new skills to cope with future demands (Parker et al., 2010). This proactivity was presented as a process influenced by the positive work environment climate for transfer. The results showed that the influence of a positive work environment on employees transfer implementation intentions was, to some extent, constrained by employees' autonomous motivational state and the envisioned future that they perceived from participation.

Further to the results of Study 1, the qualitative aspect of the study explored employees' views about how non-mandatory PD contributed to the change in terms of the usefulness of participation in these activities to their work and career.

As outlined in Chapter 1, the research program consisted of a mixed method design, incorporating a concurrent-embedded and sequential quantitative process. Within the concurrent-embedded aspect of the design both quantitative and qualitative data were collected within the online Professional Development Survey, followed by a series of five focus groups. The qualitative analysis was undertaken to complement the first quantitative study and to inform the subsequent quantitative study. The qualitative data were therefore embedded within the quantitative data (Creswell & Plano Clark, 2011). The quantitative and qualitative data were analysed separately. Both data types subsequently informed the development of the second quantitative study. The qualitative aspect of the design discussed in this Chapter is highlighted as Study 1 - Qualitative in Figure 4.1.

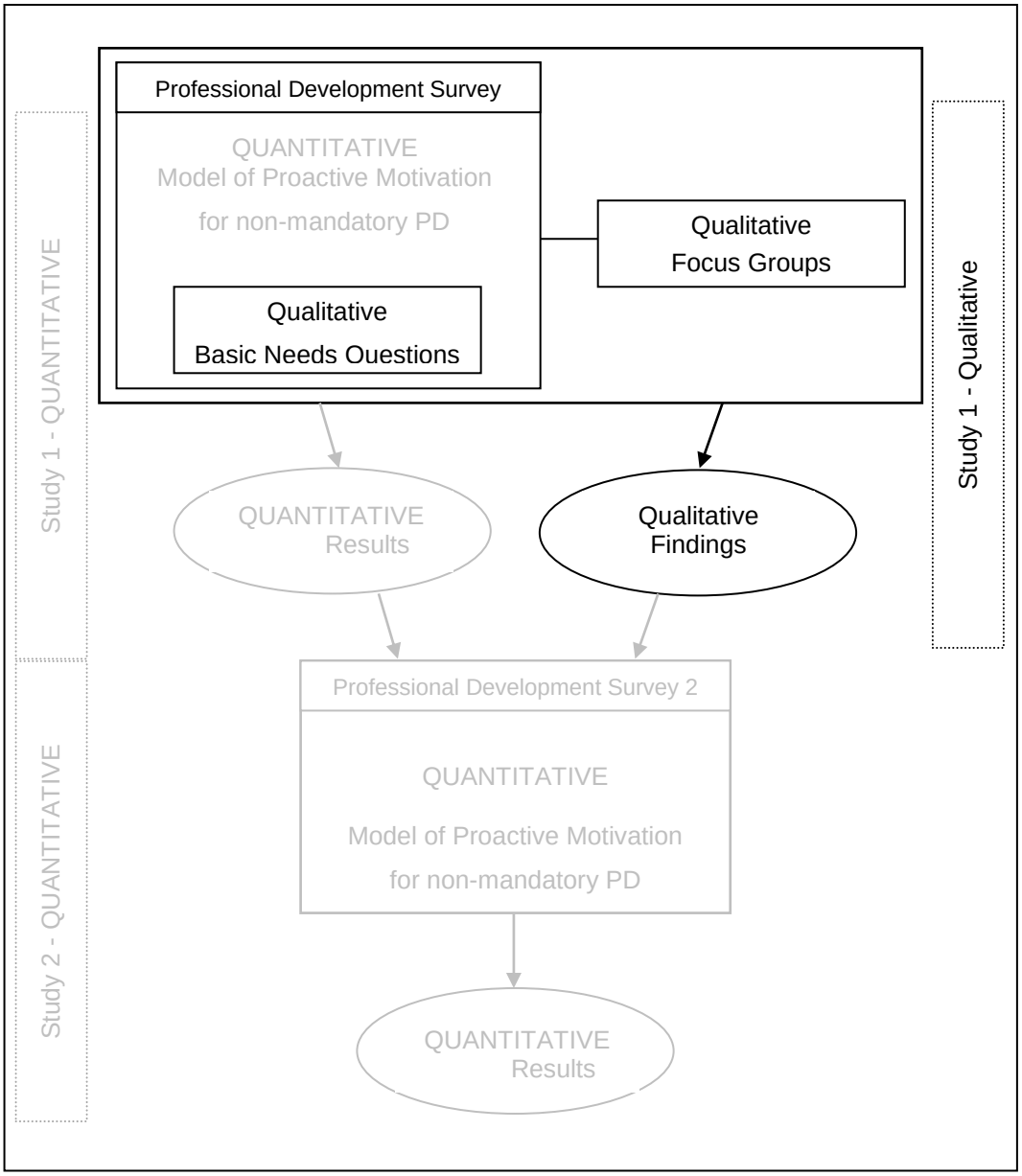


*Figure 4.1*. Flow chart of research design highlighting the concurrent-embedded qualitative aspect of Study 1. Model developed from Creswell and Plano Clark (2011).

The embedded or less dominant qualitative aspect of the Professional Development Survey consisted of participants' free-text responses to three open-ended questions related to the contribution of non-mandatory PD within the workplace. Five qualitative focus groups were also embedded in the design and

were conducted subsequent to the collection of the Professional Development Survey data.

The goal of the qualitative data collection was to allow participants to express their views, in their own words (Crabtree & Miller, 1999), about the usefulness of participation in PD to their work and career.

The qualitative data therefore provided supplementary information about what may be happening for employees in terms of their motivation for participation in non-mandatory PD that would not have been obtained with the use of a quantitative data collection alone (Creswell, 2009; Newman, Ridenour, Newman, & DeMarco, 2003). The research was therefore exploratory. Importantly, in the sequential aspect of the study, the extracted themes also informed the development of the second quantitative study (Creswell, 2009).

**4.1.1 Non-mandatory PD contribution to work.** The knowledge, skills, and abilities (KSAs) gained by employees are expected to contribute to improved individual and organisational performance. These improvements are, without doubt, important to organisations in terms of organisational outcomes and competitive advantage (Sheldon et al., 2003). From the perspective of the organisation in which this study was undertaken, PD was provided as opportunities to facilitate work outcomes in terms of productivity and performance, and to enhance future career opportunities within the organisation (USQ, 2011, August 09). Professional Development Activities are therefore effective only to the extent that participants use the skills or knowledge learned when they are back in the workplace; that is, the extent to which the transfer of training occurs (Foxon, 1994).

With a focus on the intrinsic importance of work (Stone et al., 2008), Self-Determination Theory (SDT; Ryan & Deci, 2000b) provides a conceptual tool that

complements traditional work motivation theories (Sheldon et al., 2003). From an SDT perspective, individuals give psychological meaning (functional significance) to inputs in the social environment based on the opportunity to satisfy three innate basic needs. These are a need for autonomy, competence, and relatedness (Ryan & Deci, 2000b). Individuals strive to meet these basic needs according to their unique interests and capabilities in a motivating process of organismic integration, or intrapersonal and interpersonal unity (Deci & Ryan, 1990).

Within the work environment the fulfilment of these three basic needs has been shown to enhance autonomous motivation for various work behaviours and work outcomes, such as effective performance and organisational citizenship behaviours (Gagné & Deci, 2005; Ryan & Deci, 2000b). In terms of the work environment, autonomy "is about sensing some level of control and choice about the work one is doing" (Baard, 2002, p. 262), while relatedness refers to "the need to feel belongingness and connectedness with others" (Ryan & Deci, 2000b, p. 73). Competence within the workplace relates to self-efficacy or confidence in the ability to undertake a role or job tasks (Ryan & Deci, 2000b; Spreitzer, 1995).

Sheldon et al. (2003) suggested that, along with other high-performance practices, the provision of extensive training "should provide a context that satisfies employees psychological needs, which in turn leads to greater effort and persistence at work, enabling the firm to obtain higher individual and organizational performance" (p. 379). As non-mandatory PD is designed to provide knowledge and skills that facilitate performance of work tasks and roles, these activities can be expected to contribute to a sense of competence and autonomy in relation to work (Baard, 2002; Feldman & Ng, 2012; Sheldon et al., 2003). Further, as these activities are attended by employees across the organisation, work-related and social

interactions may also develop across the organisation (Aime, Van Dyne, & Petrenko, 2011). These activities can therefore influence employees' sense of relatedness within the organisation (Feldman & Ng, 2008). The three qualitative questions asked in the Professional Development Survey therefore incorporated the three basic needs as a catalyst to elicit participant's views about the contribution of non-mandatory PD to their work.

**4.1.2 Non-mandatory PD contribution to career.** A model of the proactive motivation and goal processes surrounding employees' participation in non-mandatory PD was presented in Chapter 3. Within this model organisational supports (including career opportunities, an organisational learning and development orientation, and performance appraisal) was found to be highly correlated with the positive work environment variable and was subsequently omitted from the model (see section 3.6.2.3 of Chapter 3). However, support for development (Birdi et al., 1997) and career advancement are seen as important motivational influences on participation in work-based training and development, where opportunities are available (Feldman & Ng, 2008; Feldman & Ng, 2012). Extrinsic Benefits also did not influence Transfer Implementation Intentions in the model. Therefore, to explore employees' views about non-mandatory PD and their career within the organisation, two questions were added to a broader list of questions to guide discussion in the focus groups. The questions are discussed further in section 4.6.3.

## 4.2 Qualitative Method

**4.2.1 Participants.** Participants of the Professional Development Survey also participated in the qualitative basic need survey question and focus group aspects of this research. The details of participants are provided in the specific method sections related to these data collections.

**4.2.2 Procedure.** The basic needs question data were collected as part of Study 1 within the Professional Development survey. The procedure undertaken in the collection of the Study 1 data was described in section 3.4.2 of Chapter 3. The procedure undertaken for the focus group data is described in section 4.6.2 of this Chapter.

**4.2.3 Materials.** Materials specific to each of the data collections are described in section 4.5.3 (basic needs questions) and section 4.6.3 (focus groups).

**4.2.4 Analyses.** Using a largely inductive process, the qualitative analyses undertaken within this study used thematic analysis to identify semantic and/or explicit themes within the data. It was therefore based within a realist paradigm (Braun & Clarke, 2006). The thematic analysis allowed the identification of repeated patterns of meaning (themes) within the basic needs survey question and focus group data sets, without adherence to a particular theoretical process. The analysis did not look beyond what participants had written (survey questions) or spoken (focus groups) to identify more latent conceptualisations or ideologies that may have shaped or informed the semantic content, as is done when using a more constructionist approach, such as grounded theory (Braun & Clarke, 2006).

The thematic analysis of, firstly, the basic needs questions data and, secondly, the focus group data was undertaken according to four basic steps described by Creswell (2009). The first step involved the initial preparation of the data for analysis. For the focus group data this included the transcription of the audio-taped sessions. This step also included checking the data files and transcripts to ensure that there were no obvious mistakes (Creswell, 2009).

Within the second step, the data were read to gain a general sense of the overall ideas presented by participants; to become familiar with the content (Braun &

Clarke, 2006). Within the third step, a detailed inductive analysis and coding process was undertaken. The coding process organised the data into segments prior to bringing meaning to it by applying categories or themes (Creswell, 2009). To guide the process of identification of emergent themes the text was explored for repetition of comment. Similarities and differences were then identified across the basic needs questions and across all of the focus groups (Ryan & Bernard, 2003). Data were organised into codes according to emergent content at the sentence level.

The coding was used to generate themes that conceptually linked participants' comments (Creswell, 2009). The analyses undertaken were relatively straightforward, with the majority of themes linking similar and specific expressions (Ryan & Bernard, 2003). The *NVivo9* qualitative computer software program (QSR International, 2010) was used to help organise and code the data sets.

During the fourth step, the themes were reviewed and refined. The data were re-read to ensure that the themes reflected the meaning in the data and to identify additional information that may have been missed in the coding process (Braun & Clarke, 2006). The coded data were subsequently assessed by two additional coders to determine inter-rater agreement. This aided the establishment of reliability and validity of the extracted themes (Creswell, 2009). Specific details of the thematic analysis process undertaken for each of the two sets of data are explained more fully in section 4.5.4 (basic needs questions) and section 4.6.4 (focus group).

**4.3 Reliability and validity**

Several procedures were implemented to facilitate the reliability of the qualitative findings, as recommended by Creswell (2009). As previously mentioned, data documents and transcripts were checked to ensure that they did not contain mistakes and the developed themes were reviewed. Two additional coders were also

involved in the cross-checking of codes to provide an indication of inter-coder reliability (Creswell, 2009).

To facilitate the reliability of the themes a list of codes was also developed by the researcher during the coding process, with definition of theoretic themes outlined. This list reduced the possibility of drift in the definition and meaning of themes when finalised by the researcher and cross-checked by the additional coders (Creswell, 2009).

Inter-coder reliability within qualitative analysis refers to "the degree to which coders agree with each other about how themes are to be applied to qualitative data" (Ryan & Bernard, 2003, p.104). While two or more coders can code data independently, inter-coder agreement for this study was based on the cross-checking of codes extracted from the text by the researcher. In this strategy, "it is not that they code the same passage of text, but whether another coder would code it with the same or a similar code" (Creswell, 2009).

While Creswell (2009) recommended that one other person cross-check codes, two additional coders were involved in the coding process in this study. Both coders were experienced with the categorisation of qualitative data. One of the coders was a stakeholder in the wider Professional Development Survey and the facilitator of the focus groups. The other coder was independent to the study. Inter-coder agreement of at least 80% across all three coders was used as an indication of good reliability for the qualitative findings in this study (Creswell, 2009). Inter-coder agreement at or above this level provides a degree of confidence that the themes are not researcher-specific, adding to the likelihood of the validity of themes (Ryan & Bernard, 2003).

Qualitative validity refers to the accuracy of the information obtained through the data collection (Creswell & Plano Clark, 2011). This is important as the themes extracted during qualitative analysis do not present a unique solution (Ryan & Bernard, 2003). Validity is more likely to be demonstrated when the clarity of, and the agreement for, themes is maximised (Ryan & Bernard, 2003). While the level of inter-coder reliability provided a degree of confidence in the validity of the themes, validity was further facilitated by the use of three strategies (Creswell & Plano Clark, 2011; Ryan & Bernard, 2003).

The themes extracted from the data were clear and explicit, with the majority of data excerpts containing the actual title of the theme. To ensure clarity of the more theoretical extracted themes, where data did not necessarily contain the actual title of the theme, the research literature was used to help define and interpret the findings (Bazeley, 2007). As there can be many perspectives on a theme, where available negative or disconfirming information that ran counter to the themes was also included in the analysis to add to the credibility of the account (Creswell, 2009; Creswell & Plano Clark, 2011).

Finally, to be open about potential bias that may influence the findings and validity of the themes (Creswell, 2009), the researcher acknowledges that the interpretation of the findings was implicitly shaped by theory and the research literature related to work motivation, Self-Determination Theory (Deci & Ryan, 1985) and the quantitative model of proactive motivation for participation in PD.

### 4.4 Findings

The findings from the free-text survey questions and focus groups are reported separately, in sections 4.5.5 and 4.6.5 respectively. Each set of findings is presented with a description of the central themes extracted along with relevant quotes of

participants' comments to illustrate each theme (Crabtree & Miller, 1999; Creswell, 2009).

### 4.5 Basic Needs Survey Questions

**4.5.1 Participants.** Of the 17 participants who were part of the wider Professional Development study and did not intend to attend non-mandatory PD in the next 12 months, 8 (47.1%) provided comment to at least one of the basic needs questions. Five of these respondents indicated that non-mandatory PD did not contribute to their sense of control over their work, connection with others in the workplace, or confidence in their ability to do their job.

Of the 439 participants in this study, 69.9% provided comment to at least one of the three basic needs questions. Approximately 64.0% of participants provided comment to each question, while 52.6% provided comment to all three questions. Statistically significant demographic differences were not identified between the participants who provided comment and those who did not, using chi-square tests of independence. The number and percentage of participants who provided comment are presented in Table 4.1.

Table 4.1

*Number and Percentage of Participants who Provided Basic Needs Comments*

| | Participants who provided comment | |
|---|---|---|
| Question | *N* | % * |
| One or more | 307 | 69.9% |
| Control over work (Autonomy) | 279 | 63.6% |
| Connection in workplace (Relatedness) | 278 | 63.3% |
| Confidence in job ability (Competence) | 285 | 64.9% |
| All three | 231 | 52.6% |

*Percentage of overall participants (*N* = 439).

Of the 127 academic staff who participated in the survey, 89 (70.1%) provided comment. Of the 312 general staff who participated in the survey, 218 (69.9%) provided comment. Of the 281 females who participated in the study, 203 (72.2%) provided comment, while 104 (65.8%) of the 158 males who participated provided comment. The median age grouping of participants who provided comment was 41 to 50 years. Three participants (1.0%) were aged under 21 years, 45 (14.6%) were aged between 21 and 30 years, 52 (16.9%) between 31 and 40 years, 101 (32.9%) between 41 and 50 years, 88 (28.7%) between 51 and 60 years, and 18 (5.9%) were aged over 60 years.

The majority of participants who provided comments were in tenured (permanent) positions (248; 80.8%). Approximately two-thirds had worked at the organisation for up to 10 years and within their faculty or section for up to 5 years (66.1% and 65.5% respectively), while more than half (51.8%) had been in their current role for up to 2 years. The majority (244; 79.5%) had attended non-

mandatory PD in the last 12 months, while 43 (14.0%) had attended in the last 1 to 2 years. A further 13 (4.2%) had attended in the last two to four years, and 7 participants (2.3%) had last attended more than four years ago.

**4.5.2 Procedure.** The procedure undertaken for the Professional Development survey data collection was presented in section 3.4.2 of Chapter 3 related to Study 1.

**4.5.3 Materials.** Within the online Professional Development survey participants were asked to provide comment to three non-forced, open-ended, free-text response questions related to the innate basic need for autonomy, relatedness, and competence espoused by Self-Determination Theory (Ryan & Deci, 2000b). The basic needs concepts acted as a catalyst to elicit participants' views about the transfer of training to the workplace, in terms of the usefulness of non-mandatory PD to their work and within the workplace. The questions were written according to the definition of the basic needs. The autonomy question referred to a sense of control. The relatedness question referred to a sense of connection. The competence question referred to a sense of confidence (Ryan & Deci, 2000b). A copy of the questions within the survey is provided in Appendix D.

In order of presentation in the survey, these questions were:

- *In what way does participation in HR, ICT, and LTSU professional development activities contribute to your sense of being in control of your work?*
- *In what way does participation in HR, ICT, and LTSU professional development activities help you develop a sense of connection with others in your workplace?*

- *In what ways does participation in HR, ICT, and LTSU professional development activities contribute to your confidence in your ability to do your job?*

**4.5.4 Analysis.** The thematic analysis of the basic needs question data, collected within the Professional Development Survey, incorporated four steps as outlined in the Qualitative Analysis Procedure section of this Chapter. In the first step of the analysis the data were exported into an excel file and then checked to ensure accurate download.

The second step in the analysis was to become familiar with the data. This was undertaken within the excel data file. The data were read to obtain a general sense of the overall ideas presented by participants (Creswell, 2009). Then an active reading of the data for each question was undertaken in order to capture participants' views further to the information provided in the quantitative model of proactive motivation for participation in non-mandatory PD (Braun & Clarke, 2006). This step provided initial ideas for coding of the data. Across the three questions, these broad ideas included having up-to-date knowledge/skills/understanding, tools, efficiency, improvements, networking, and non-contribution. These ideas were refined in subsequent phases (Braun & Clarke, 2006).

The next step of the analysis involved a systematic identification of interesting semantic content across the data for the three questions (Creswell, 2009). The identified data extracts were collated under relevant codes in the *NVivo9* (QSR International, 2010) program. The analysis was conducted at the sentence level with related terms collated at the same code. However the majority of identified semantic content also contained the wording used as code titles. After the initial coding, the

data were examined for broader themes. At this point, the significance of several of the themes became evident.

Due to the straightforward nature of participants' responses to the three survey questions, a number of the initial codes formed main themes in themselves and did not require higher-order themes. Other codes were collated under potentially broader themes. Codes containing smaller numbers of extracts were re-distributed under broader themes where applicable, or were removed from the analysis (Creswell, 2009). Three of the identified themes encompassed concepts discussed and defined in the research literature. These themes related to networking, proactive effort, and prosocial effort. The research literature was therefore consulted to ensure that the data contained within these themes accurately reflected these concepts (Bazeley, 2007).

Prior to a review and refinement of the themes, a template of codes was also developed to help organise the data extracts into themes, with codes defined from the content of the data extracts and the research literature, where appropriate (Crabtree & Miller, 1999). The template of codes was a useful aid to inter-rater agreement, with the definitions facilitating a systematic approach to the coding of data by the researcher and additional coders (Creswell, 2009).

At the fourth step the themes were reviewed and refined. The data set was re-read to ensure that the themes reflected the meaning in the data set as a whole and to code any additional text that may have been missed at earlier stages of the analysis (Braun & Clarke, 2006). At the end of this stage, six themes were identified.

A concept is more likely to be a theme if it occurs often within participant responses (Ryan & Bernard, 2003), with repetition seen as evidence of the importance of an issue (Bazeley, 2007). However, themes identified in the text, but

not mentioned frequently can provide potential insight into issues not considered (Bazeley, 2007). Such insights can capture something important (Braun & Clarke, 2006) about the contribution of non-mandatory PD to employees work that may complement the first quantitative study results, and inform the subsequent qualitative study.

Therefore, findings that represented potentially interesting contributions were retained (Willig, 2008) where mentioned by at least 10% of participants who provided comment. The sixth theme, a subset of a non-contribution theme, labelled "not useful", was mentioned by less than 10% of participants. This theme was retained as it was an important inclusion in terms of the validity of the findings, as the data provided a contrasting perspective to that of the more positive findings (Creswell & Plano Clark, 2011).

The coded data were assessed by two additional coders to determine inter-rater agreement. The average inter-rater agreement between the researcher and the two coders was greater than the recommended 80% (96%). This level of agreement provided support for the reliability and validity of the extracted themes (Creswell, 2009). The total number and percentage of participants who commented within the six themes are presented in Table 4.3 in section 4.5.5.

**4.5.5 Findings.** A pattern of themes, including six different aspects of the usefulness of non-mandatory PD as a contribution to participants' control over work, connection within the workplace, and confidence in ability to do the job, were extracted as major themes from the question responses. Extracted themes were predominant in comments for particular questions, but were also expressed in responses to other questions.

The major themes showed that for some employees non-mandatory PD contributed to effectiveness and efficiency within work roles, provided networking opportunities with people across the organisation, and facilitated proactive effort in relation to job and career. A further aspect that emerged from the comments was that of an enabling of prosocial helping behaviours. A not-useful aspect was also apparent for a number of employees whose comments emerged within a non-contribution theme. The themes extracted across the three questions, related terms, and the predominant questions in which themes were expressed are presented in Table 4.2.

Table 4.2

*Themes Extracted Across the Three Basic Needs Questions*

| Theme | Related terms | Predominant questions |
|---|---|---|
| *Useful Contribution:* | | |
| Effective | Effective, effectively, effectiveness | Autonomy |
| Efficiency | Efficient, efficiently, efficiencies | Autonomy |
| Networking | Network, networks, networking, contact others, develop connections | Relatedness |
| Proactive effort | Initiative, problem solving, try new things, improvement, career enhancement | Autonomy, Competence |
| Prosocial effort | Helpful, support, serve, benefit: others/organisation | Relatedness, Autonomy |
| *Non-contribution:* | | |
| Not useful | Not suited/relevant/useful | Autonomy, Competence |

Overall, 77.5% of the 307 participants who provided comment indicated that PD contributed in some way to a sense of autonomy, relatedness, or competence within the work place. The remaining 22.5% of participants indicated that non-mandatory PD did not contribute. Each of the six major themes represented expressions from at least 10% of the total number of respondents who provided comment.

For a small number of participants, comments were similar across multiple questions, with the majority occurring within the non-contribution category (i.e., a number of participants indicated that non-mandatory PD did not contribute to a sense of autonomy, relatedness, or competence within the workplace). The number of comments within each theme, the number of participants across each theme, and percentage of total number of respondents who provided comment are presented in Table 4.3.

Table 4.3

*Comment and Participant Counts for Extracted Themes Across the Basic Needs Questions*

| | Number of Comments | | | | |
|---|---|---|---|---|---|
| Theme | Autonomy | Relatedness | Competence | Total | *N* (%*) |
| *Contribution*: | | | | | |
| Effectiveness | 35 | 5 | 4 | 44 | 44 (14.3%) |
| Efficiency | 39 | 1 | 7 | 47 | 46 (14.9%) |
| Networking | 2 | 31 | 3 | 36 | 36 (11.7%) |
| Proactive effort | 20 | 5 | 19 | 44 | 42 (13.7%) |
| Prosocial effort | 20 | 26 | 8 | 54 | 53 (17.3%) |
| *Non-contribution:* | 32 | 35 | 28 | 95 | 69 (22.5%) |
| Not useful** | 17 | 4 | 11 | 32 | 30 (09.8%) |

*Percentage of participants who provided comment (*N* = 307). **Theme within non-contribution.

Some participants expressed comments related to themes per se without elaboration about the contribution, as represented in the following two responses to the autonomy and relatedness questions. The question within which the extract was contained, as well as the gender and employment category of the participant who provided the comment, are shown in the parentheses ( ) after each representative comment.

*"Increased effectiveness"* (Autonomy; Male, Academic)

*"Opportunity to network"* (Relatedness; Female, General Staff)

While these comments reflected a sense of usefulness and were included within relevant themes, other comments expressed more specific and detailed

contributions. These more detailed contributions are represented in the following comments, discussed under each of the thematic headings.

***Effectiveness and efficiency.*** Comments related to the *effectiveness* and *efficiency* themes were predominantly located in responses to the autonomy question related to control over work. The findings for these themes are reported together. Derivatives of the words "effective" and "efficient" were explicitly used in these comments, as outlined in Table 4.2.

Some participants commented that the skills and knowledge gained during non-mandatory PD contributed to a more effective and efficient undertaking of specific aspects of work tasks:

> *"By understanding the tools better I can effectively plan and control teaching material more efficiently and effectively" (Autonomy; Female, Academic)*
>
> *"Being informed of systems, processes and procedures of the organisation allows better flow of communication and greater efficiencies for me in the workplace. So knowledge is power"* (Autonomy; Male, Academic)

Other participants commented about improved effectiveness and efficiency their work roles more generally:

> *"Professional development activities enhance my work experience by providing opportunities to learn new and more efficient and effective ways of improving productivity. In this way I gain a greater sense of being in command of my work, having more confidence, knowledge and time management skills"* (Autonomy; Male, General Staff)

Some participants also indicated of sense of empowerment derived from an understanding of how their job fitted within the wider organisation (Feldman & Ng,

2012; Parker & Ohly, 2008). For some this understanding also represented benefit to organisational outcomes, as represented in the following comment:

> *"Broadens my understanding of the big picture. Gives greater understanding of my job and working with my colleagues which helps get the job done more effectively and efficiently. The more I understand about my role the more in control I am of achieving improved outcomes"* (Autonomy; Female, General Staff)

These comments suggested a sense of employees' empowerment over their work through the gaining of knowledge and/or skills. With a more efficient and effective undertaking of work and job roles, participants perceived that benefit was provided both to themselves and to organisational outcomes (Aguinis & Kraiger, 2009).

***Networking.*** Comments related to *networking* within the organisation were predominantly located in responses to the relatedness question about connection within the workplace. Derivatives of the word "network" were explicitly stated in the majority of these comments.

Some participants made reference to the activities themselves providing networking opportunities (Feldman & Ng, 2008), as represented in the following comments:

> *"These are great ways to meet and network with staff in other departments and faculties in the university"* (Relatedness; Male, Academic)
>
> *"You get to meet other staff from different areas, some you have only ever spoken to via the phone or email. This helps with networking"* (Relatedness; Male, General Staff)

Other participants indicated that participation in non-mandatory PD facilitated an extension of work relationships with co-workers in the wider organisational context after participation.

> *"…I have felt that I can contact others who have been in the course or the trainer to touch base and compare experiences. It is a valuable and collegiate experience, when it happens!"* (Relatedness; Female, Academic)
>
> *"Building networks of colleagues in other areas and knowing you can connect with people in similar roles if need be"* (Relatedness; Female, General Staff)

These comments suggested that non-mandatory PD participation actively facilitated a more proactive development of relationships with other employees, in other parts of the organisation, who had the potential to assist participants in their work (De Vos, Clippeleer, & Dewilde, 2009; Grant & Ashford, 2008).

***Proactive effort.*** Comments related to *proactive effort* in the workplace were predominantly located in responses to the autonomy and competence questions, related to control over work and confidence in ability to do a job, respectively. While the theme was initially derived from the comments, a theoretical definition of proactive work behaviour was subsequently applied to ensure that comments included within this theme were about initiating change, rather than adjusting to or responding to change (Bindl & Parker, 2010).

The extracts within this theme represented behaviour that involved employees' self-initiated, anticipatory action to take control of, and bring about change in, the situation at work (Bindl & Parker, 2010; Parker & Collins, 2010). Examples of these behaviours included the taking of initiative, anticipating events or problems, and taking charge to actively bring about change in work methods (Bindl & Parker, 2010).

A number of participants indicated that non-mandatory PD contributed to individual initiative through the implementation of new ideas within the workplace that had the potential to improve work circumstances (Crant, 2000; Parker & Collins, 2010), as represented in the following two comments:

*"Able to use initiative and make work fun" (Autonomy; Female, Academic)*

*"I try to keep up to date and try out new things so I have choices and feel confident I have the best options available to me"* (Competence; Male, Academic)

Other participants indicated anticipatory action, with the knowledge gained in non-mandatory PD used to prevent the reoccurrence of work problems (Frese & Fay, 2001; Parker & Collins, 2010), as represented in the following comment:

*"Professional development activities enhance knowledge by introducing new and latest thinking regarding work based practices. These in turn build confidence in my ability to be able to tackle issues and obstacles encountered in my day to day work requirements"* (Autonomy; Female, General Staff)

Comments also reflected that participants saw non-mandatory PD to be useful as a form of active preparation in anticipation of undertaking new activities (Bindl & Parker, 2010):

*"[Contributes to sense of being in control over work] By providing me with a broader knowledge base in which to undertake my job. This provides me with further confidence to try new things"* (Competence; Female, Academic)

A number of participants also reflected career initiative behaviour, in which participation in non-mandatory PD was used as an active skill development strategy in order to promote their careers (Parker & Collins, 2010; Seibert, Kraimer, & Crant, 2001; Tharenou & Terry, 1998).

> *"I feel I am gaining skills and enhancing my work performance by attending professional development activities. I believe it will improve my chances of career progression and offer me the opportunity for advancement. It shows I am proactive in determining my future career at [this organisation]"* (Autonomy; Female, General Staff)
>
> *"The sessions definitely boost my confidence in my everyday job, but also applying for higher level jobs"* (Competence; Female, General Staff)

These comments suggested that some participants perceived an active undertaking of the use of non-mandatory PD learning to bring about positive change in their work and /or working environment (Parker et al., 2010).

***Prosocial effort.*** Comments related to *prosocial effort* within the workplace were predominantly located in responses to the relatedness and autonomy questions. Participant responses suggested that what had been learned in non-mandatory PD facilitated an ability to help or serve others in the workplace. The theme represented in the data was therefore related to prosocial effort (Grant, 2007). The theoretical definition of "effort expended to benefit others", derived from the work of Grant (2007) was subsequently used for inclusion of comments into this theme.

Within the *prosocial effort* comments, some participants expressed the ability to assist other employees in a direct way using what was learned in non-mandatory PD, as represented in the following two comments:

> "*Participation in these activities means that I'm as up to date as I can be so that I am more helpful to those who could not attend, to new employees, or even those who may have forgotten some aspects of the training. This allows me to have a sense of control in that I know what I am passing onto others will aid them as it does me"* (Autonomy; Female, General Staff)

*"I feel that I have considerable expertise in using technologies for course creation, sufficient to be able to help others"* (Competence; Female, Academic)

Other participants expressed a more indirect ability to provide support to others within the workplace:

*"By gaining knowledge and skills I can be a more effective leader. I value being able to support others in the workplace"* (Relatedness; Male, General Staff)

*"It helped me appreciate that others require support and encouragement. By motivating myself, I can motivate others"* (Relatedness; Female, General Staff)

Also of interest was that some participants felt that what was learned facilitated an enhanced client-service:

*"I learn skills and techniques to serve our clients better. Hence I am able to provide better customer service or gain an understanding of why some situations occur and how to prevent them if they are not favourable"* (Autonomy; Female, General Staff)

*"...participation is valuable helping us make our contribution to our students' education as meaningful and fulfilling for them as possible"* (Autonomy; Male, Academic)

Others also saw an organisational benefit from the sharing of what was learned, as represented in the following extract:

*"I would make the observation that participation in professional development activities provides the individual with skills and knowledge that can most likely benefit others and with this in mind attending these activities gives people more of an opportunity to connect with others in their workplace by passing on*

*learned skills and knowledge for the benefit of the organisation and the individual"* (Relatedness; Male, General Staff)

The *prosocial effort* theme responses suggested that these employees cared about using what they had learned in non-mandatory PD to make a positive contribution to others in the workplace, including other employees, clients, and the organisation itself (Grant, 2007).

***Non-contribution.*** A number of participants commented that non-mandatory PD was not useful in terms of contribution to a sense of autonomy, relatedness, or competence within the workplace. The majority of these responses were brief, with no detail provided (e.g., "*None*", "*Nil*", "*It doesn't*"). However, as represented below, some participants provided a more detailed reason for the non-contribution, indicating that these activities were not useful in terms of being relevant to needs.

*"I have yet to see any PD activities which relate to my work"* (Autonomy; Male, General Staff)

Some indicated that the PD attended was too basic:

*"The majority of the PD sessions I have been to I find very basic and not effective in providing the PD I need. The people are great, but it really is not suited to what I need"* (Autonomy; Female, General Staff)

Another participant felt that the PD was too advanced:

*"Much of the course subject content was not particularly relevant (i.e., subject content way exceeded) to the duties performed in my position"* (Competence; Female, General Staff)

The non-contribution comments suggested a gap between the learning employees' perceived was needed and the non-mandatory PD learning obtained (Noe, 2008; Brown & Sitzmann, 2011).

**4.5.6 Review of findings.** In review, the findings from the thematic analysis of the three basic needs questions suggested that for the majority of participants these activities were useful and contributed in different ways to a sense of autonomy, relatedness, and competence within the workplace. For a number of participants this contribution took the form of increased effectiveness and efficiency when undertaking work tasks. A number of participants also found these activities to be useful to networking with others in the organisation. There was further suggestion that a number of participants felt that these activities facilitated more proactive effort to bring about change. These proactive efforts related to the implementation of new ideas, problem-solving, and preparation for the undertaking of new activities. For some participants there was also suggestion of skill development to promote career.

Further to these contributions, participant comments also suggested that non-mandatory PD participation facilitated a degree of prosocial effort in terms of sharing what was learned with others in the workplace, providing support to others, and enhanced client-services. Some participants mentioned this prosocial effort in terms of benefit to the organisation.

A final theme that was identified in the data related to non-contribution of these activities to a sense of autonomy, relatedness, or competence within the workplace. A number of participants who commented within this theme suggested that non-mandatory PD was not useful as the activities attended were not relevant to the work performed.

## 4.6 Focus Groups

The second embedded data collection consisted of five focus groups conducted over a six-week period that commenced four weeks after the conclusion of the Professional Development survey. Focus groups are a form of group interview that

provides an opportunity for participants to respond to and interact with the other participants in the group (Willig, 2008).

The purpose of the focus groups was to obtain a more in-depth understanding of the usefulness of non-mandatory PD to work and career through participant sharing and comparing of experiences and opinions (Morgan, 1998). The focus group was therefore the unit of analysis, rather than participants (Crabtree & Miller, 1999). As such, the goal of the analysis was to identify what was relevant to participants across the groups, not to identify answers to specific questions developed by the researcher or key stakeholders (Crabtree & Miller, 1999).

**4.6.1 Participants.** Forty-six employees who completed the Professional Development survey expressed an interest in participation in a focus group about non-mandatory PD. Thirty of these subsequently participated in one of five focus groups. Two further groups were conducted, however only two of the invited participants attended each of these groups. The level of interaction and breadth of views within these two groups was therefore limited and the data were not included in this study (Crabtree & Miller, 1999). However, the views of the participants in these groups were considered by the key organisational stakeholders.

The size of the five focus groups ranged from five to eight participants. The smaller group sizes provided a number of benefits. All participants were provided the opportunity to be actively involved in group discussions (Krueger, 1998; Willig, 2008). The minimum group size of five participants also ensured a suitable level of interaction between participants (Crabtree & Miller, 1999). In terms of analysis, with a smaller number of participants within each group, more groups were conducted than would have been possible with larger group sizes. This facilitated the comparison of discussion across groups (Krueger, 1998). The subsequent

collaboration of information across the five groups provided support for the validity of the data themes (Berg, 2001).

The gender of participants in each of the groups was mixed, with the majority of participants being female. One group consisted of all academic staff, three groups consisted of general staff, and one group was made up of a mix of academic and general staff. Participant number, gender, and employee category in each of the focus groups are presented in Table 4.4.

Table 4.4

*Number of Participants and Staff Category within Focus Groups*

| | Participants | | |
|---|---|---|---|
| Focus Group | *n* | Gender | Employee Category |
| One (FG1) | 5 | 1 Male: 4 Female | General |
| Two (FG2) | 6 | 2 Male: 4 Female | Academic |
| Three (FG3) | 8 | 2 Male: 6 Female | General |
| Four (FG4) | 5 | 2 Male: 3 Female | General/Academic |
| Five (FG5) | 6 | 1 Male: 5 Female | General |

**4.6.2 Procedure.** Participants were recruited for the focus groups by invitation at the end of the Professional Development Survey. The 46 employees who forwarded an expression of interest email were subsequently contacted to establish availability to attend a group on specific dates within a six-week timeframe.

Each of the five focus groups was of one-hour duration. The focus groups were conducted by an experienced facilitator, who was also a key stakeholder of the wider Professional Development study. To facilitate the accurate extraction of group meanings, the facilitator of the groups was involved in the analysis and discovery of

themes across the five focus groups, both in discussion and as an additional coder (Krueger, 1998).

Informed consent was obtained from participants prior to the commencement of discussion in each group. The facilitator gave an overview of the study purpose, including the focus on non-mandatory PD provided within the organisation, as well as the voluntary and confidential nature of participation. Participants were informed that they could withdraw from the group at any time without penalty. They were also informed that the focus group would be audio-recorded to ensure that discussion was accurately captured. Participants were then asked to read and sign the consent form. A copy of the focus group consent form is provided in Appendix J.

To facilitate an open and free-flowing discussion among participants the facilitator also outlined the ground rules for each of the group (Berg, 2001). The ground rules included an overview of the process that the discussion would take, including flexible, polite, and orderly discussion, and the confidentiality of discussion within the group. A copy of the questions developed to guide discussion was also given to each participant.

The list of questions was used as a guide to discussion only. The flow of questions was flexible within each group, to accommodate topics that arose spontaneously (Berg, 2001). This flexibility meant that each group did not interact around the same or an identical number of questions. However, this process facilitated an interesting, dynamic discussion that had the potential to yield unanticipated findings (Crabtree & Miller, 1999).

**4.6.3 Materials.** To explore group views about different aspects of the usefulness of non-mandatory PD in terms of contribution to work and career, several questions were developed in conjunction with key stakeholders to guide the focus

group discussions. Not all of these questions were of interest to this particular study (Krueger, 1998). However, the content of the discussion facilitated by questions in each of the groups was of interest. A full list of the questions developed to guide discussions within the groups is provided in Appendix K.

To explore group views about career advancement in the context of non-mandatory PD participation, two questions were developed to facilitate discussion within the focus groups. The first question directly related to career advancement from non-mandatory PD participation. The second question was more general and related to benefits participants would like to see from participation in these activities. The questions used to guide discussion for this research were:

- *To what level do you feel there are opportunities for career advancement as a result of you attending PD activities?*
- *What benefit would you like to get out of PD that you are currently not getting?*

**4.6.4 Analysis.** The first step of the thematic analysis of the focus group data was the preparation of the data for analysis. The audio recordings of the five groups were transcribed by an independent and experienced transcriber. The facilitator of the groups subsequently reviewed the content of the transcripts and verified them as accurate records of the discussion within each of the focus groups (Krueger, 1998).

During the second step of the analysis the researcher became familiar with the overall ideas in the data by listening to the audio file of each focus group while reading the corresponding transcript. The transcripts were then discussed in relation to the experience of the facilitator during each of the groups (Krueger, 1998). An active reading of the transcripts was then undertaken by the research to identify issues of relevance to participants within each of the focus groups. Ideas for coding

were recorded. The ideas that were mentioned across all five of the focus groups were mainly related to career and included discussion related to advancement and promotion opportunities, qualifications, career development and career planning. These ideas were refined in subsequent phases (Braun & Clarke, 2006).

The next step of the analysis involved a systematic identification of patterns within the discussions for each of the five focus groups. To help organise and code the data the analysis was conducted using *NVivo9* (QSR International, 2010). The analysis was conducted at the sentence level; however the interactions between participants also contributed to the strength of the codes. Therefore the emergent themes were organised into categories as block discussions.

After the initial coding, the significance of three broader themes became evident (Braun & Clarke, 2006). The themes were derived from similar content of discussion among participants in all five of the focus groups. This collaboration of discussion across the groups provided support for the validity of the data themes (Berg, 2001). However, with the flexibility in discussion the themes were not always discussed within the same question for each group. The analysis was relatively straightforward as the patterns within each of the group discussions were clearly identifiable, and the themes similar across all of the groups (Krueger, 1998). The three themes related to the usefulness of non-mandatory PD to career within the organisation, usefulness to career in general, and integrated career planning within the organisation.

At the fourth step the themes were reviewed and refined. Each of the focus group transcripts was re-read to ensure that the themes reflected the meaning in the data set and to code any additional text that may have been missed at earlier stages of the analysis (Braun & Clarke, 2006). At the end of this stage, three themes were

identified. These themes were usefulness to career, career benefits, and organisational commitment to development. The coded data were subsequently assessed by two additional coders to determine inter-rater agreement. The average inter-rater agreement between the researcher and the two coders was greater than the recommended 80% (97%). This level of agreement provided support for the reliability and validity of the extracted themes (Creswell, 2009).

**4.6.5 Findings.** Three major themes were extracted from the data across the five focus groups. The somewhat heterogeneous composition of the focus groups (as shown in Table 4.4) and identification of what was relevant to participants across the groups provided support for the validity of the extracted themes (Berg, 2001). These themes provided insight into participants views about the usefulness of non-mandatory PD participation to aspects of career development within the organisation studied, career benefits in general, and the commitment of the organisation to long-term development of employees. A description of the themes and their related terms are presented in Table 4.5.

Table 4.5

*Themes Extracted Across the Five Focus Groups*

| Theme | Description of theme | Related terms |
|---|---|---|
| Useful to career | Usefulness of participation in PD to aspects of career development within the organisation. | Promotion, advancement, responsibility, career ambitions, career goals, other positions, job security |
| Career benefits | Benefits that may be derived from participation in PD that may assist career development in general. | Resume, qualifications, externally recognised, value, career path |
| Organisational commitment to development | Long-term commitment of organisation to employee development. | Long-term career planning, integrated PD |

The focus group findings are represented in the following comments, discussed under each of the thematic headings. Within each theme, the gender and staff category of the participant who provided the comment, as well as the focus group the discussion occurred in are provided in parentheses ( ) after each representative extract.

***Useful to career.*** Within the *useful to career* theme, focus group discussions revolved around the usefulness of non-mandatory PD in terms of career development within the organisation. Across the five groups these activities were not generally perceived to assist career advancement. Rather, non-mandatory PD was viewed as somewhat ad hoc, point-in-time skill and knowledge building strategies, as described by one participant:

*"You might have a continuum of skills, but it doesn't necessarily mean there's a career progression or anything. It's just these are the skills that we perceive*

*for people who are below manager level and here's a superset which is managers plus that below it, and if you don't have these skills, you can't identify them, then do some training which will give you these skills, but it doesn't necessarily mean that within the context of anything that you're going anywhere"* (Male 1, General Staff, FG3)

More specifically, across the groups non-mandatory PD learning was not perceived as being valued within the organisation, in terms of recognised achievements when internal advancement or promotion opportunities arose. As stated by one participant:

*"... I guess you would like to think that here it would be recognised ...[the organisation] would have enough confidence in the training being offered here that, should someone present for a job, that some of those courses that they've done are considered as they've really built up their skills suite. And I'm not quite so sure that happens…*

*...I don't think that most people see the benefit of putting in all those courses as something to sort of build up their resume. Perhaps, if it was even acknowledged here as a starter, so that, for internal progression or even movement around, you don't have to progress up the ladder or move sideways into other positions as well"* (Female 1, General Staff, FG1)

Additionally, looking beyond the current organisation to career in general, the above participant expressed the view that these activities were not useful in terms of achievements that could be added to a resume (more fully represented in the following *career benefit* section).

***Career benefits.*** Within the *career benefits* theme, group discussions revolved around a desire for longer-term career benefits to be derived from non-mandatory PD

participation; benefits that may potentially transcend the current organisation. These benefits involved a developmental focus, with more formal recognition of learning facilitated by a sense of structure among non-mandatory PD offerings:

> *"More than anything if you're having PD, you want some sort of structure in that professional development"* (Male 1, General Staff, FG3)

This desire was more fully described by another participant as an integrated process, with non-mandatory PD also linked to career paths:

> *"I would like to see it link into a structure and a clear path I think. Like you might do your PD, you get your little form at the end and you stick it in your bottom draw and it's forgotten about. So there's no stepping stone as in marking it out in career pathing. What real value does it actually give you by participating in the PD training?"* (Female 3, General Staff, FG5)

More formally, the desire for structure and recognition was also expressed in terms of certification or qualifications that could be recognised both within the organisation and elsewhere, as represented in the following extract:

> *"The comment I made was recognition for the training or some sort of independent certification… it would be nice if it built up somehow so in the end you also got an externally recognised qualification perhaps. Maybe even articulated into study at the uni here perhaps."* (Male 1, General Staff, FG1)

Implicit within the *career benefit* theme discussion about structure, career pathing, and qualifications was the idea that career development does not occur for employees in isolation (Wanberg & Kammeyer-Mueller, 2008). The organisation also plays a facilitating and supportive role (Hurtz & Williams, 2009; Noe, 1996). Group perceptions about the organisation's role in employees' career development

are more fully represented in the following *organisational commitment to development* theme.

***Organisational commitment to development.*** Another related theme that was weaved throughout discussions was that of the organisation's long-term commitment to employee development, including the integration of non-mandatory PD into career development strategies and structures. In the words of one participant:

> *"...the importance of PD, instead of being an ad hoc extra that you might do if you had enough time to get it...It's holistic, you and PD is right there in the heart of it"* (Female 3, Academic, FG2)

While this participant saw non-mandatory PD as a central component of individual employee development, participants also expressed a lack of clarity about career advancement within the organisation. In the words of one participant:

> *"...I think people probably struggle in trying to manage their own career, about what they need to do. What are you expected to be doing to get to the next level?"* (Female 3, General Staff, FG5)

Participants across the groups expressed the desire for non-mandatory PD to be incorporated into an integrated career development process within the organisation. This view was articulated by the following participant, who expressed the desire to increase career development support given to staff and to be supported in her own career development:

> *"I think I would like to see some - a bit more integrated career planning in this whole process I think. I'd like to be able to offer a bit more support to my staff and I would like to be able to go to my boss and say, "This is really where I'd like to be. I can see that this is the pathway to get there. Will you support me?" Well, you know, there aren't really many things that I can look at and*

*say well this is my pathway actually. So I think it would be excellent if our professional development offerings included a range of different activities that tied back into career planning for individuals. That's how I see it. I'd like the [performance review] process to include a bit more of that career development and career planning stuff - not just personal development or focused just in the next 12 months. I think it would be great if we could think three to five years out and encourage our staff to actually plan that far ahead"* (Female 3, General Staff, FG4)

**4.6.6 Review of findings.** Overall, the themes extracted across the focus groups suggested that non-mandatory PD was not generally perceived to be useful, in a direct sense, to career development within the organisation. The findings suggested that employees would like to see organisational recognition of non-mandatory PD in terms of career advancement. There was also mention of the desire for these activities to be linked into an integrated structure that could potentially lead to a level of formal certification or qualification that would benefit their career in general. The findings further suggested that for non-mandatory PD to become an integrated aspect of the career development process, planning and management was required, not only by participants themselves, but also by the organisation (Baruch & Bozionelos, 2011). This holistic approach to career development was expressed by one participant in the following way:

*"I think really, unless you can holistically integrate PD with a career plan for somebody, in the directions that they want to go, to help them achieve that, then I think it's wasted. It really is wasted. Yes, there are the technical things, like People Soft or Excel or things like this and there are the interesting*

*things. But if it's not integrated, it's not done in a planned way. Failing to plan is planning to fail"* (Male 1, Academic, FG2)

**4.7 Discussion**

The qualitative data collections embedded within the first quantitative study provided participants the opportunity to express their views about the usefulness of participation in non-mandatory PD to their work and career, in their own words (Crabtree & Miller, 1999). The data provided valuable information that supplemented the model of proactive motivation for participation in non-mandatory PD. Importantly; the extracted themes also informed the development of the subsequent quantitative study (Creswell, 2009). The second quantitative study is reported in Chapter 5.

Much research has been undertaken to understand the transfer of training to the workplace (Baldwin et al., 2009). This research has been undertaken largely from an organisational perspective, to ensure that the financial and human resources invested in training and development are worthwhile in terms of positive organisational outcomes (Baldwin et al., 2009; Liebermann & Hoffman, 2008). From an employee perspective, the findings in this study suggested that the time and energy invested in participation in non-mandatory PD may be worthwhile at the individual level when what is learned is perceived as useful in terms of valued work and career development outcomes.

In terms of work outcomes, the findings suggested that, for the most part, non-mandatory PD participation was useful as a contribution to a sense of autonomy, relatedness, and competence in the workplace. However, some participants suggested that these activities were not useful as they were not relevant to their needs.

For some employees the knowledge and/or skills gained in non-mandatory PD were perceived to facilitate improved job performance in terms of *effectiveness* and *efficiency*. These outcomes are not entirely unexpected, as training and development activities are generally developed and delivered within organisations to facilitate such outcomes (Brown & Sitzmann, 2011). This transfer of training to the workplace (Foxon, 1994) was the objective within the organisation studied, as in organisations generally.

Also suggested was a contribution to *networking* opportunities with other employees in the organisation. The nature of non-mandatory PD, with participation available to employees across the various sections of the organisation studied, can be expected to facilitate the development of work related and social interactions across the organisation (Aime et al., 2011). The findings suggested that these interactions facilitated support involving other employees outside of the immediate work area that may not have occurred without participation in non-mandatory PD (Aime et al., 2011). While these findings do not form part of the subsequent quantitative study, they may form the basis of future research.

Another theme extracted from the data suggested that the knowledge and skills gained in non-mandatory PD contributed to proactive effort further to actual participation in PD. This *proactive effort* was expressed as active undertakings of action that had the potential to bring about positive change in participants' work or work situation (Belschak & Den Hartog, 2010; Parker et al., 2010). In the current dynamic and changing nature of work and work environments, such behaviours are increasingly required to ensure the effectiveness of organisational outcomes (Crant, 2000; Frese & Fay, 2001). These additional proactive behaviours may be facilitated

by stronger perceptions of personal capabilities and proactive goal setting as a result of PD learning (Parker et al., 2010).

An interesting aspect identified in these findings was that of *prosocial effort*. Noe and Colquitt (2002) suggested that "the real value of training may not come from individual learning but rather from having employees interact and share ideas that improve processes" (p.55). Implicit in this statement is a positive contribution to organisational outcomes (Grant, 2007). While the contribution to organisational outcomes is important, the findings in this study also suggested a sense of participant care toward others; that non-mandatory PD participation facilitated effort that also benefitted other employees and clients (Grant, 2008).

The results of the first quantitative study demonstrated that positive work environment and autonomous motivation had an indirect influence on employees' transfer implementation intentions through a relationship with the intrinsic benefits envisioned from participation in non-mandatory PD. Further to these results, the findings of the qualitative study related to *prosocial effort* suggested that a relational process (Grant, 2007) may also be salient when employees participate in non-mandatory PD. Prosocial aspirations, as an aspect of the future envisioned by employees, may contribute to the more internal motivation for participation in these activities (Sheldon et al., 2003).

The qualitative findings related to career also provided important supplementary information about participants' views of advancement opportunities and developmental support within the organisation studied. The focus group findings suggested that employees would like to see organisational recognition of non-mandatory PD in relation to contribution toward career progression. Participants would like these activities linked into a clear structure that could

potentially lead to formal certification or qualification that would benefit their career in general.

The findings also suggested that employees would like the organisation to take an active role in the provision of career development planning, with non-mandatory PD linked into this career planning. Research has shown that employees who undertake career development activities, such as career planning to meet specific career goals, are more likely to see the usefulness of these activities and experience a higher level of training motivation as a consequence (Colquitt et al., 2000; Noe, 1986). The findings therefore suggested that employees' perceptions about the *usefulness of PD* to their career within the organisation, as well as a *long-term organisational commitment to employee development* (Kuvaas & Dysvik, 2009) may influence their level of autonomous motivation for participation in non-mandatory PD.

**4.8 Looking Forward**

The findings of the qualitative study were specific to the organisation surveyed (Creswell, 2009). Therefore, the concepts mentioned by participants may not generalise to other situations. As stated by Bazeley (2007), "Coding is not an end in itself; it makes sense only if you can use it to search and test the ideas that have been coming out of your data" (p. 178). A number of the ideas expressed by participants informed, and were tested in, the subsequent quantitative study. Two quantitative scales were accessed from the research literature and two were developed from the qualitative findings themselves. These scales were used to assess the relationship between these variables and the proactive goal generation process in a wider range of employees (Creswell & Plano Clark, 2011) involving an organisational non-specific sample. A perceived organisational Commitment to Development, Useful to Job,

and Useful to Career variables were included as antecedents to the proactive motivation and goal generation processes model. A Prosocial Benefits variable was also included in the model as an aspect of the goal generation process. These variables are discussed further in Chapter 5 related to Study 2.

# Chapter 5 - Study 2

## 5.1 Introduction to Study 2

As outlined in the preceding chapters, this research program consisted of a mixed method design, incorporating a concurrent-embedded and sequential quantitative process. Study 1 related to the concurrent-embedded aspect of the design, with the collection of both quantitative and qualitative data. As the less dominant aspect of Study 1, the qualitative data were embedded within the quantitative data (Creswell & Plano Clark, 2011). The quantitative results were presented in Chapter 3, with the qualitative findings presented in Chapter 4. Both data types subsequently informed the development of the Study 2 quantitative study, which represents the sequential aspect of the research. The research process is highlighted in Figure 5.1.

This chapter presents the results for Study 2. The purpose of the cross-sectional study was to test a structural model which combined potentially important aspects of the motivation energising employees' participation in non-mandatory PD identified in the qualitative findings with the core Proactive Motivation and Goal Processes model supported in the quantitative results of Study 1.

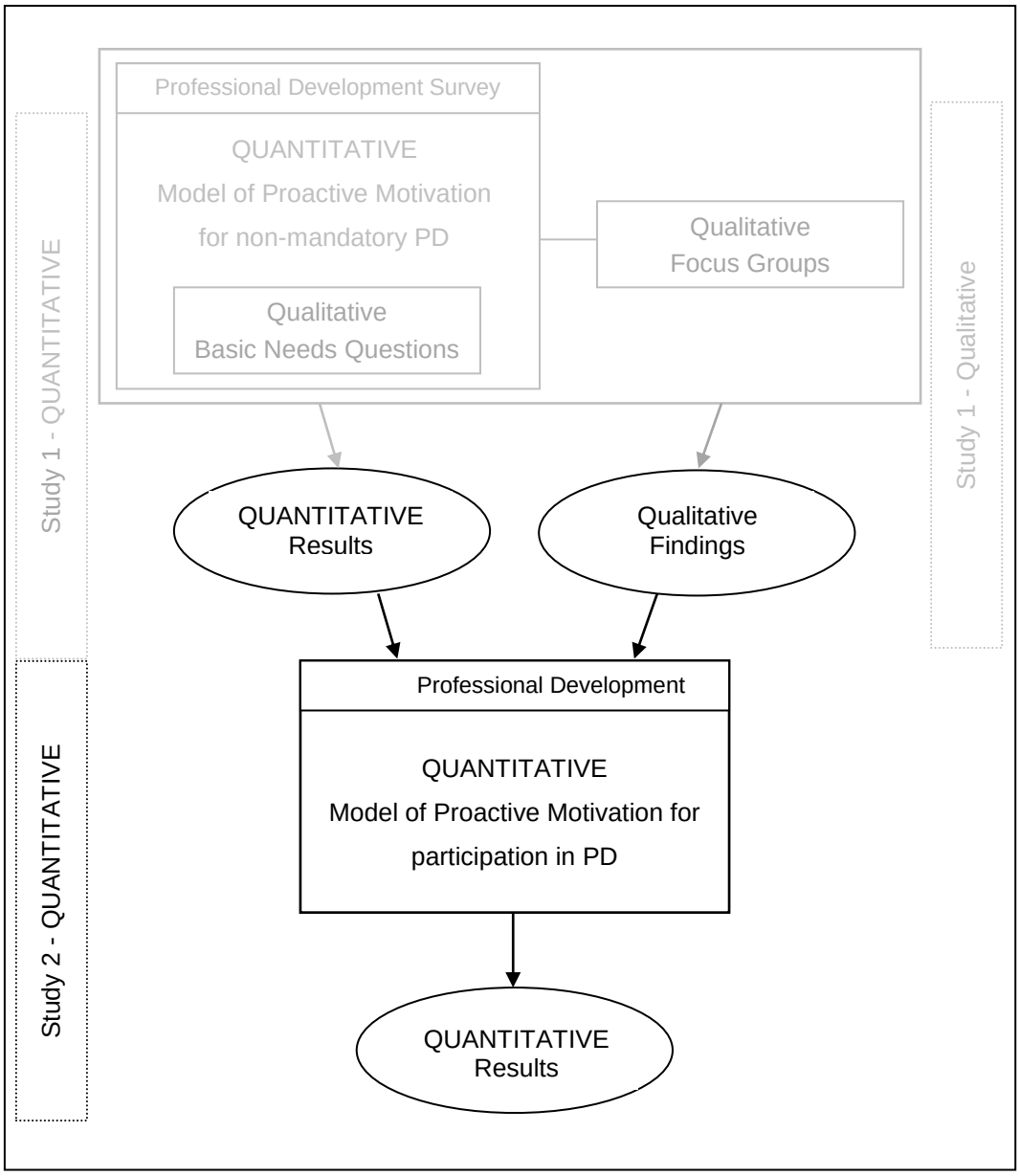


*Figure 5.1.* Flow chart of research design highlighting the Study 2 sequential process. Model developed from Creswell and Plano Clark (2011).

## 5.2 Rationale for Study 2

This section outlines the contribution of the Study 1 quantitative analyses to the development of the Study 2 model, followed by the contribution of the Study 1 qualitative findings, including supporting literature.

**5.2.1 Study 1 quantitative contribution**. The results of the quantitative aspect of Study 1 supported the proposition that employees' participation in non-mandatory

PD is a proactive, self-determined process. Placing employees' motivation to participate in non-mandatory PD within a proactive motivation framework that incorporated a Self-Determination Theory (SDT; Deci & Ryan, 1985, 2000) perspective was seen as an initial step toward a deeper understanding of the multi-faceted training motivation concept (Salas & Cannon-Bowers, 2001). Key relationships within the core Proactive Motivation and Goal Processes model (see Figure 3.5) were further examined in Study 2. These relationships included the influence of Autonomous Motivation on Intrinsic Benefits and Transfer Implementation Intentions, and the influence of Intrinsic Benefits on Transfer Implementation Intentions. The indirect influence of Autonomous Motivation on Transfer Implementation Intentions was also examined.

The Study 1 results demonstrated that both Autonomous Motivation and Intrinsic Benefits made unique contributions to employees' Transfer Implementation Intentions. Some of the influence of Autonomous Motivation on employees' Transfer Implementation Intentions also occurred through its relationship with Intrinsic Benefits. These results provided a degree of support for the concordance between more autonomous motivation, intrinsic goals and aspirations, and goal progress demonstrated in the SDT literature (e.g., Koestner et al., 2006, 2008; Vansteenkiste, Simons, Lens, Sheldon et al., 2004). This result also supported the central role of goals demonstrated in both the training and development (Colquitt et al., 2000; Latham, 2007) and proactive work motivation (Bindl & Parker, 2010; Parker et al., 2010) literature. Transfer Implementation Intentions was also seen as an important part of the motivational processes energising participation in non-mandatory PD.

The influence of Extrinsic Benefits on Transfer Implementation Intentions in the Study 1 model was non-significant. Based on the positive influence of Intrinsic Benefits on Extrinsic Benefits, these aspirations were seen as secondary to the personal growth that may be associated with non-mandatory PD. Extrinsic Benefits did not form part of the final Study 2 model.

**5.2.2 Study 1 qualitative contribution**. Within the Study 1 qualitative focus group findings, employees expressed a desire for non-mandatory PD to be incorporated into an integrated career development process, with the organisation committed to employee development in the longer-term. This finding supported prior research in that employees desired that the organisation play a facilitating and supportive role in sustaining employee development behaviour (Hurtz & Williams, 2009; Noe, 1996). The degree to which work organisations are committed to investments that support continuous development (e.g., developmental performance appraisal, time, money) will provide cues that influence employees' perceptions about the value of non-mandatory PD (Beier & Kanfer, 2010).

The qualitative findings suggested that the value of non-mandatory PD relates not only to its importance within the organisation, but also to the usefulness of these activities to employees work and to their career in the longer-term, when what is learned is used within the organisation. Nikandrou et al. (2009) identified similar findings among employees from different organisations who participated in a management training program. Nikandrou et al. found that when seen as useful to their current work position, employees also expressed an interest in the program and saw it as useful to their career in the longer-term. An organisational Commitment to Development can therefore be expected to influence the degree to which employees

see PD as Useful to Job and Useful to Career. Useful to Job can also be expected to influence Useful to Career.

Within the findings, the usefulness of non-mandatory PD to effectiveness and efficiency in employees' job was seen as a contribution to a sense of autonomy over their work, with smaller contributions made to a sense of relatedness and competence (see Table 4.3). From an SDT perspective, the functional significance given to non-mandatory PD when seen as useful to employees' job, and potentially career (Crant, 2000) within the organisation, is therefore likely to be *informational* (supporting autonomy, competence, and relatedness within the workplace) and an important energiser of participation (Deci & Ryan, 2012). With such support, employees are not only likely to find non-mandatory PD intrinsically interesting, but also to internalise the value and regulation of behaviour associated with these activities (Gagné & Deci, 2005). Participation is therefore likely to be endorsed by the employee and experienced as an action for which they are responsible (Deci & Ryan, 1987). Useful to Job and Useful to Career can therefore be expected to influence employees' Autonomous Motivation for participation in non-mandatory PD.

The prosocial actions expressed in the Study 1 data suggested that employees used what was learned in non-mandatory PD to benefit others. This self-directed and change-oriented (Griffin et al., 2007) proactive effort was primarily associated with a sense of autonomy and relatedness within the workplace (see Table 4.3). Sheldon and Kasser (1995) demonstrated that autonomous motivation for personal strivings was associated with the pursuit of different types of possible futures, such as personal growth, friendships, and societal contributions. In the organisational context, Grant and Ashford (2008) proposed that employees may envision that their

proactive behaviour impact multiple targets, including the self, other individuals such as employees, and the organisation.

Together, the quantitative and qualitative aspects of Study 1 suggested that autonomous motivation to participate in non-mandatory PD will be related to the fulfilment of future intrinsic goals or aspirations that relate not only to personal psycho-social growth, but also to the sharing of knowledge as a community contribution (Gagné, 2009; Vansteenkiste et al., 2006). Autonomous Motivation can therefore be expected to influence both Intrinsic Benefits and Prosocial Benefits. Personal psycho-social growth may also facilitate a prosocial contribution to others in the workplace. Intrinsic Benefits can therefore be expected to facilitate Prosocial Benefits.

Employees' prosocial aspirations to provide support and share what is learned with others in the workplace can also be seen as a proactive generative goal toward applying the skills and/or knowledge gained in non-mandatory PD that also enhances learning through practice (London & Sessa, 2007). As such, future Prosocial Benefits from participation in non-mandatory PD could be expected to influence employees' Transfer Implementation Intentions, as planned strategies that set the scene for the use of what is learned in the workplace (Beier & Kanfer, 2010).

### 5.3 Specific Aims of Study 2

Study 2 was conducted to test a structural model of the proactive motivation and goal generation processes energising employees' participation in non-mandatory PD provided within their work organisations. The model was informed by the outcomes of Study 1 and was tested in a heterogeneous sample of employees (i.e., the study was not conducted among employees of a single organisation as in Study 1). The Autonomous Motivation, Intrinsic Benefits, and Transfer Implementation

Intentions constructs included in the Study 1 core Proactive Motivation and Goal Processes model were included in Study 2.

Four variables were also added to the model informed by the qualitative aspect of Study 1. Employees' perception of their work organisation's long-term commitment to an investment in employee development (Commitment to Development) was included in the study as an exogenous antecedent organisational context variable to the Motivation and Goal Processes model. Two endogenous antecedent variables were also included in the model and focussed on the usefulness of non-mandatory PD to employees' job (Useful to Job) and career (Useful to Career). A Prosocial Benefits variable was also included in the model as an aspect of an envisioned different future from participation in non-mandatory PD. The Study 2 conceptual model is presented in Figure 5.2.

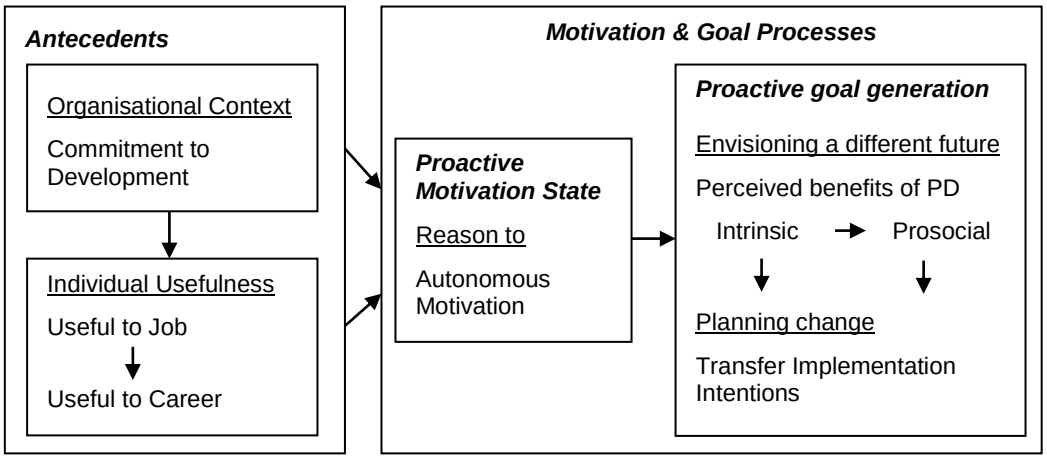


*Figure 5.2.* Study 2 conceptual Proactive Motivation Processes and Antecedents model for participation in non-mandatory PD (based on Parker et al., 2010).

A detailed description of the hypothesised relationships in the model follows the presentation of Figure 5.3, which operationalizes Figure 5.2. The nature of the hypothesised relationships between the variables is indicated by the sign next to each path.

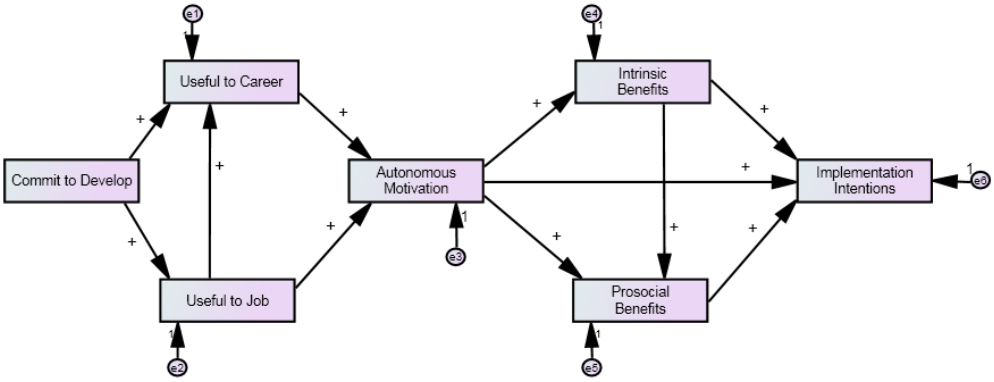


*Figure 5.3.* Study 2 *a priori* hypothesised structural model.

The hypotheses captured by the conceptual model that were central to the aims of this dissertation were as follows:

5.1. It was hypothesised that Commitment to Development would have a positive influence on both Useful to Career and Useful to Job. This hypothesis was based on prior research which has suggested that organisations play a facilitating and supportive role in sustaining employee development behaviour (Hurtz & Williams, 2009; Noe, 1996). This role is likely to provide cues that influence employees' perceptions of the potential value of non-mandatory PD (Beier & Kanfer, 2010).

5.2. It was hypothesised that Useful to Job would have a positive influence on Useful to Career. This hypothesis was based on the Study 1 qualitative findings and was supported by the work of Nikandrou et al. (2009) who found that when a management training program was seen as useful to employees' current work position it was also seen as useful to their career in the longer-term.

5.3. It was hypothesised that both Useful to Job and Useful to Career would have a positive influence on Autonomous Motivation. This hypothesis was based on the Study 1 qualitative findings which suggested that when

seen as useful participation in non-mandatory PD contributed to employees' sense of autonomy over their work. Participation is therefore likely to be endorsed by employees (Deci & Ryan, 1985, 1987). The work of Nikandrou et al. (2009) also suggested an association between a training program being useful to employees' current work position and career and an expressed interest in that program.

5.4. It was hypothesised that Autonomous Motivation would have a positive influence on Intrinsic Benefits and Transfer Implementation Intentions. This hypothesis was based on the results of the Study 1 quantitative model and the associated research that has demonstrated that autonomous motivation for training and development (Maurer et al., 2003) and personal strivings (Sheldon & Kasser, 1995) was associated with the pursuit of intrinsic benefits. A number of researchers (e.g., Koestner et al., 2006, 2008; Sheldon & Elliot, 1998) have also demonstrated a positive influence of autonomous motivation on implementation plans and progress toward personal goals. In the work environment, Gegenfurtner et al. (2010) also found that autonomous motivation for transfer influenced transfer implementation intentions in the post-training environment.

5.5. It was hypothesised that Autonomous Motivation would have a positive influence on Prosocial Benefits. This hypothesis was based on the Study 1 qualitative findings that employees who participate in non-mandatory PD make an effort in the workplace to benefit others with what is learned. The hypothesis was supported by the work of many researchers (e.g., Gagné, 2009; Grant & Ashford, 2008; Vansteenkiste et al., 2006) that proposed that the intrinsic goals or aspirations associated with more

autonomous motivation not only relate to personal growth, but also to benefiting others.

5.6. It was hypothesised that Intrinsic Benefits would have a positive influence on Prosocial Benefits. This hypothesis extended the work of prior researchers (Gagné, 2009; Grant & Ashford, 2008; Vansteenkiste et al., 2006) that proposed that intrinsic goals or aspirations may relate not only to personal growth, but may also benefit others.

5.7. It was hypothesised that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions. This hypothesis was based on the results of the Study 1 quantitative model and the associated research that has demonstrated that individuals' who pursue more self-concordant personal and educational goals are likely to implement plans to achieve those goals and sustain effort toward the achievement of those goals (Koestner et al., 2006, 2008; Sheldon & Elliot, 1999; Vansteenkiste, Simons, Lens, Sheldon et al., 2004).

5.8. It was hypothesised that Prosocial Benefits would have a positive influence on Transfer Implementation Intentions. This hypothesis was based on the work of London and Sessa (2007) which suggested that prosocial aspirations could be seen as a proactive generative goal toward applying what is learned in non-mandatory PD that could not only help others, but also enhance learning through practice.

5.9. It was hypothesised that Autonomous Motivation would have a positive indirect influence on Transfer Implementation Intentions through its relationship with both Intrinsic Benefits and Prosocial Benefits. This hypothesis was based on the results of the Study 1 quantitative analysis

and the central nature of goals in the training and development (Colquitt et al., 2000; Latham, 2007) and proactive work motivation (Bindl & Parker, 2010; Parker et al., 2010) literature.

## 5.4 Method

**5.4.1 Participants.** A total of 205 Alumni of a regional Australian university and their colleagues participated in this study. Close to half of the participants (45.4%) were male. Just over half of the participants (52.2%) were aged between 41 and 55 years, while 30.2% were aged between 21 and 35 years, with the remaining 16.6% aged 56 years and over. Most participants lived in Australia (87.8%). The majority were in permanent employment (84.4%) and two-thirds (65.9%) worked in organisations with 1,000 or more employees.

Participants worked in a wide range of occupations, from academia to nursing, engineering to accountancy. While 64% worked in the training and development industry sector, approximately 16% of employees were involved in occupations directly involved in educating others (e.g., lecturer, school teacher, educational resource developer). Less than half (42.9%) had worked in their organisation for five years or less, while 72.2% had been in their current role for five years or less. The majority of participants planned to attend non-mandatory PD in the next 12 months (82.9%) and had attended non-mandatory PD in the last 12 months (78.1%), while 92.7% had attended within the last 2 years. Full demographic characteristics including the number of participants within each category are shown in Appendix L.

**5.4.2 Procedure.** The purpose of Study 2 was to test a structural model which combined potentially important aspects of the motivation energising employees' participation in non-mandatory PD identified in the qualitative findings with the core

Proactive Motivation and Goal Processes model supported in the quantitative results of Study 1.

Alumni of a large regional Australian University and their colleagues were invited to take part in the study if they were currently employed and had participated in non-mandatory PD within their work organisation. An invitation to Alumni was placed at the end of an online survey being undertaken by the Alumni Services Association of the University. The invitation gave a brief outline of the study, including its purpose and focus, as well as the time it would take to complete the online survey questionnaire. A copy of the invitation can be viewed in Appendix M. Alumni who expressed an interest in participating were emailed a link to the survey. They were also asked to invite colleagues to take part in the study. Ethical clearance was obtained prior to recruitment of participants and data collection. A copy of the Ethical Clearance can be viewed in Appendix N. This strategy provided access to a large heterogeneous sample of Alumni (approximately 29,000) and their colleagues who were recruited apart from their work organisations.

The online survey was conducted from May to September, 2012. The purpose of the study was explained on the introductory page of the survey. Participants were assured of the confidential and voluntary nature of the study, and that responses were anonymous (respondents were not identified), with individual results not reported. It was also explained that the survey could be exited at any stage if desired. Participants provided informed consent prior to commencing the survey by entering a unique computer-generated number into a consent ID box on the introductory page. These procedural strategies helped to minimise potential common-method and response bias (Podsakoff et al., 2012), as did the recruitment for voluntary participation apart from employees' work organisation. A supplementary correlation

analysis was also conducted between controlled motivation and all of the Study 2 Proactive Motivation and Antecedents model variables. Theoretically and empirically, controlled motivation was not expected to be associated with proactive self-initiated behaviour. Controlled motivation demonstrated non-significant relationships ($p > .05$) with each of the variables in the model. These results provided support for the discriminant validity of the autonomous motivation and controlled motivation constructs and reduced potential concern about common-method variance (see Appendix O for controlled motivation descriptive statistics and correlations).

The survey introductory page also advised participants about a follow-up study, with a unique code generated to enable the linking of any subsequent data with their current data. When submitted, survey responses were sent directly to a secure database ready for analysis. The web-site was administered by a trained person with expertise in computer and internet security.

**5.4.3 Measures.** The Study 2 data were collected using a cross-sectional self-report questionnaire. A copy of the questionnaire can be viewed in Appendix P. The first section of the questionnaire asked participants to answer a series of demographic questions related to gender, age, country (text response), employment status, occupation (text response), industry, as well as tenure within their current organisation and work role. Participants were also asked when they had last attended non-mandatory PD and whether they planned to attend non-mandatory PD during the next 12 months. As in Study 1, self-report data seemed appropriate because the focus of the study was again employees' self-perceived motivations, attitudes, and intentions (Gegenfurtner et al., 2010).

The questionnaire included scales measuring participants' perceptions of an organisational context antecedent and six criterion scales related to the usefulness of non-mandatory PD and the core Proactive Motivation and Goal Processes model (see Figure 5.3) included in the Study 1 quantitative analyses. The organisational context antecedent scale related to employees' perceptions of their work organisations' long-term commitment to an investment in employee development (Commitment to Development). Criterion scales included Useful to Job, Useful to Career, Autonomous Motivation, Intrinsic Benefits, Prosocial Benefits, and Transfer Implementation Intentions. A number of other scales were included in the questionnaire, but were not part of this research and are not discussed here. At the conclusion of the questionnaire participants were also given the opportunity to make additional comments regarding their participation in non-mandatory professional development. These comments did not contribute to the analyses in this study. An invitation to participate in the follow-up study was also included at the end of the survey. One-hundred and three participants expressed an interest in the follow-up study.

The scales included in Study 2 were informed by the Study 1 quantitative and qualitative analyses. A number of the scales were adopted from previous research, while two scales were developed directly from the qualitative data. Details of the scales in the study are included in the description of individual scales, with the items comprising each scale listed in Appendix Q. Unless otherwise stated, the questionnaire measures were rated on a seven-point Likert-type scale, with response options ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The average response to items within each scale was calculated to provide an overall scale score.

***Commitment to development.*** Commitment to Development was measured with the six-item Perceived Investment in Employee Development scale developed by Kuvaas and Dysvik (2009). The scale was developed to measure "employees' perceptions of the organisation's long-term and continuous commitment to investment in employee development, rather than their perceptions of particular learning or developmental practices" (Kuvaas & Dysvik, 2009, p. 222). Examples of items included in the scale are "By investing time and money in employee development, my organisation demonstrates that it actually invests in its employees", and "I definitely think that my organisation invests more heavily in employee development than comparable organisations".

Kuvass and Dysvik (2009) reported acceptable internal consistency for the Perceived Investment in Employee Development scale when measured across three samples of Norwegian employees from different organisations (α range = .87 to .91) in an investigation of the relationship between perceived investment in employee development, intrinsic motivation, and work performance.

***Useful to job.*** Useful to Job was measured with six items adapted from the 6-item Perceived Usefulness scale from Calisir and Calisir (2004). Calisir and Calisir measured perceived usefulness in the context of employees' end-user satisfaction with enterprise resource planning software systems and reported acceptable internal consistency for the scale (α = .96). The items in the Perceived Usefulness scale reflected the findings of the Study 1 qualitative analyses related to a more effective and efficient undertaking of work tasks. The scale was therefore adapted for the current study to reflect the non-mandatory PD environment and employees' perceptions in terms of the usefulness of what they learn in non-mandatory PD to their job. Examples of items included in the scale are "Using what I learn will

enable me to accomplish job tasks more quickly" and "What I learn will be useful to my job".

***Useful to career.*** Useful to Career was measured with eight items related to the usefulness of participation in non-mandatory PD to career development within the organisation. The items were developed directly from employee statements comprising the Useful to Career theme in the Study 1 qualitative focus group findings. Correspondence between the content of each item and the focus group statement was validated with 100% agreement from the two additional coders who assessed the Study 1 qualitative data themes (see sections 4.6.4 of Chapter 4). Two items were reverse-scored. Examples of items included in the scale are "Using what I learn will aid my career advancement within this organisation" and "Using what I learn will help me achieve my career ambitions within this organisation". Two items were removed from the scale due to small Corrected Item-Total Correlations (.28 and .42). The Cronbach's Alpha reliability coefficient for the six-item scale was acceptable ($\alpha = .90$).

***Autonomous motivation.*** Autonomous Motivation for participation in non-mandatory PD was measured with eight items from the Academic Self-Regulation Scale (Vansteenkiste et al., 2009) adapted from the Self-Regulation Questionnaire–Academics (Ryan & Connell, 1989). The adapted Academic Self-Regulation Scale consists of four scales each with four items based on the SDT conceptualisation of autonomous (intrinsic motivation, identified regulation) and controlled (introjected regulation, external regulation) motivation types (Vansteenkiste et al., 2009). The SIMS autonomous motivation scales used in Study 1 had previously been validated across a broad range of specific activities (as outlined in Section 3.4.3). The use of the adapted Academic Self-Regulation Scale autonomous motivation scale is

considered an appropriate progression from the SIMS in the current study, due to its application in learning activity contexts at the situational (specific to one learning activity) and domain (activities in general) levels across different samples.

The adapted Academic Self-Regulation Scale was used by Vansteenkiste, Zhou, Lens, and Soenens (2005) to assess the relationship between autonomous and controlled motivation to study and adaptive learning and academic success outcomes among Chinese adult students. Results demonstrated that autonomous motivation predicted more positive outcomes, while controlled motivation inhibited these outcomes across two studies related to motivation to study English and motivation to study in general. Internal consistencies for the autonomous motivation scale in these two contexts were acceptable ($\alpha = .85$ and $\alpha = .82$, respectively). Vansteenkiste et al. (2009) also demonstrated acceptable internal consistency for the autonomous motivation scale in the context of Belgian high school students' motivation to study in general ($\alpha = .87$) and college students' motivation to study a specific course ($\alpha = .88$).

Consistent with this prior research, the current study combined the intrinsic motivation and identified regulation items to produce an average autonomous motivation score. Autonomous Motivation was rated on a seven-point Likert-type scale, with response options ranging from 1 (*completely unimportant*) to 7 (*very important*). Examples of items included in the scale are "I participate in professional development activities because I enjoy doing it" and "I participate in professional development activities because I want to learn new things".

***Intrinsic benefits.*** Intrinsic Benefits was measured with six items from the Intrinsic Benefits scale developed by Maurer et al. (2003) and included in Study 1. Study 1 found acceptable internal consistency for the scale ($\alpha = .86$) in the context of

participation in non-mandatory PD within a specific organisation. One item was reverse-scored. Examples of items included in the scale are "If I participate in professional development activities, my work would likely be more interesting as a result" and "If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work".

***Prosocial benefits.*** Prosocial Benefits was measured on an eight-item scale related to the enabling of helping behaviour, or effort expended to benefit others within the organisation (Grant, 2007). The items were developed directly from employee statements comprising the Proactive Effort theme in the Study 1 qualitative basic need free-text comment findings. Correspondence between the content of each item and the comment was validated with 100% agreement from the two additional coders who assessed the Study 1 qualitative data themes (see section 4.5.4 of Chapter 4). Examples of items included in the scale are "I am likely to contribute more effectively to those around me as a result of participation in professional development activities" and "I am likely to use what I learn in professional development to help others at work". The Cronbach Alpha reliability coefficient for the scale was acceptable ($\alpha = .92$).

***Transfer implementation intentions***. Employees' intention to engage in specific behaviours in the workplace to facilitate the use of what is learned in non-mandatory PD was measured with the 11-item Transfer Implementation Intentions scale (Machin & Fogarty, 2004) used in Study 1. Study 1 found acceptable internal consistency for the scale ($\alpha = .91$) in the context of participation in non-mandatory PD within a specific organisation. Examples of items included in the scale are "I will look for opportunities to use the skills which I have learned" and "I will discuss with my supervisor ways to develop the skills which I have learned".

### 5.5 Analyses performed

Prior to statistical analyses the data were screened following a similar process undertaken for Study 1. Data were examined for accuracy of input, outliers, normality, linearity, and mulicollinearity. The Pearson's product-moment correlations were also examined to gain an understanding of the relationships between the variables in the study. Values were not missing from the dataset.

The data were then analysed using the *Amos 19* (Arbuckle, 2010) structural equation modelling (SEM) program. Maximum Likelihood (ML) estimation of parameters was used to evaluate the fit of the hypothesised models. The analysis process was similar to that used in Study 1, outlined in section 3.4.4 of Chapter 3. However, with multiple indicators of the Positive Work Environment and Organisational Support constructs in Study 1, a latent variable model was examined. With single observed measures of each construct in Study 2, the structural model was examined using path analysis, a single-indicator SEM technique (Kline, 2011).

The sample size ($N$ = 204) was greater than the minimum of 200 cases recommended for the use of SEM techniques (Kline, 2011). The sample size was also adequate to test the *a priori* hypothesised model according to the recommended minimum ratio of 10:1 cases to estimated parameters (Kline, 2011). The ratio of cases was 11:1 for the hypothesised model, as was the *post-hoc* ratio of cases to estimated parameters for the final nested model.

As the *a priori* model did not fit the data well, parameters were re-specified when a specification search suggested that a relationship was not adequately explained by the model and the re-specification was theoretically justifiable (Byrne, 2010). The research hypotheses for the variables included in Study 2 were outlined at the beginning of this chapter and were depicted in Figure 5.3.

Power was calculated as a test of the RMSEA close-fit hypothesis ($H_o$ = .05 and $H_a$ = .08; MacCallum et al., 1996) using the SPSS RMSEA and power syntax from Schumacker and Lomax (2010, p.107; see Appendix E). The power to detect a reasonably correct model was .68 (*df* = 10, *n* = 204, *p* = .05) for both the hypothesised model and the final nested model.

## 5.6 Results

This section presents the descriptive statistics for the Study 2 variables, followed by the Pearson's product moment inter-correlations and the path analyses results.

**5.6.1 Descriptive statistics.** The number of items, means, standard deviations, range of scores, Cronbach's alpha, and skew and kurtosis values for all of the variables in the study are presented in Table 5.1.

Table 5.1

*Descriptive Statistics for the Study 2 Variables*

| Variable | No. of Items | *M* | *SD* | Actual Range[a] | α | Skew | Kurt |
|---|---|---|---|---|---|---|---|
| Commitment to development | 6 | 5.03 | 1.29 | 1.00-7.00 | .93 | -.92 | .51 |
| Useful to Job | 6 | 5.66 | 0.82 | 1.33-7.00 | .91 | -1.46 | 4.88 |
| Useful to Career | 6 | 4.61 | 1.14 | 1.00-7.00 | .90 | -.58 | .50 |
| Autonomous Motivation | 8 | 5.59 | 0.86 | 2.38-7.00 | .87 | -.88 | 1.23 |
| Intrinsic Benefits | 6 | 5.49 | 0.87 | 2.00-7.00 | .82 | -.88 | 1.48 |
| Prosocial Benefits | 8 | 5.65 | 0.82 | 2.25-7.00 | .92 | -.97 | 1.78 |
| Implementation Intentions | 11 | 5.26 | 0.84 | 1.73-7.00 | .91 | -.74 | 1.79 |

*Note*. *N* = 204. [a] Potential range = 1.00-7.00. Kurt = Kurtosis.

Participants responded slightly above the midpoint of the Likert-type scales on most variables. The Cronbach's alpha measure of internal consistency reliability for all of the scales, after removal of items with small (< .30) corrected item-total correlations, was above the acceptable level ($\alpha \geq .70$) recommended by DeVellis (2003).

Univariate outliers ($z = \pm 3.29$, $p < .001$) were identified on five variables (Useful to Job [2], Autonomous Motivation [1], Intrinsic Benefits [2], Prosocial Benefits [2], and Implementation Intentions [2]). These scores were valid. As a small number of outliers are not unexpected with the larger sample sizes (Tabachnick & Fidell, 2007) required for SEM, these cases were retained in the dataset for further screening. A review of the squared Mahalanobis distance values prior to analyses suggested that one case was an extreme multivariate outlier. This participant was not working and therefore did not belong to the population of employees from which the research intended to sample. This case was removed from the dataset, giving a sample size of 204 participants. A further case was identified as a potential outlier. This case belonged to the intended sample. A comparison of results for the hypothesised model with the case in the dataset and with the case removed suggested that the parameter estimates were not overly influenced by the case. Therefore, the case was retained in the dataset for inclusion in analyses (Byrne, 2010).

Absolute values of skew and kurtosis for all variables in this study were below the values of 2 for skew (range -1.46 to .41) and 7 for kurtosis (range -.45 to 4.88) recommended as criteria for problematic values by Curran et al. (1996). From an examination of bivariate scatterplots and normal probability plots of the standardised residuals, the relationships between the variables appeared to be linear and the

distribution of the residuals relatively uniform. The variable inter-correlations are shown in Table 5.2. As implied by the theoretical model, all of the variables were positively correlated.

Table 5.2

*Summary of Inter-Correlations for Study 2 Variables*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 1. Commit to Development | 1.00 | | | | | | |
| 2. Useful to Job | .42 | 1.00 | | | | | |
| 3. Useful to Career | .49 | .52 | 1.00 | | | | |
| 4. Autonomous Motivation | .24 | .36 | .22 | 1.00 | | | |
| 5. Intrinsic Benefits | .23 | .45 | .43 | .59 | 1.00 | | |
| 6. Prosocial Benefits | .30 | .58 | .43 | .51 | .68 | 1.00 | |
| 7. Implementation Intentions | .24 | .48 | .36 | .41 | .56 | .64 | 1.00 |

*Note*. All correlations significant at the .01 level (two-tailed).

**5.6.2 Path analyses.** As outlined in the Analyses performed section of this chapter, a model generation approach was taken to test the hypotheses in this study. This model generation process implied a more exploratory than confirmatory approach to analyses (Boomsma, 2000; Kline, 2011). Path analysis was used to analyse the *a priori* hypothesised structural model as depicted in Figure 5.3. In review, the hypotheses captured by the conceptual model that were central to the aims of this dissertation were as follows:

5.1. It was hypothesised that Commitment to Development would have a positive influence on both Useful to Career and Useful to Job.

5.2. It was hypothesised that Useful to Job would have a positive influence on Useful to Career.

5.3. It was hypothesised that both Useful to Job and Useful to Career would have a positive influence on Autonomous Motivation.

5.4. It was hypothesised that Autonomous Motivation would have a positive influence on Intrinsic Benefits and Transfer Implementation Intentions.

5.5. It was hypothesised that Autonomous Motivation would have a positive influence on Prosocial Benefits.

5.6. It was hypothesised that Intrinsic Benefits would have a positive influence on Prosocial Benefits.

5.7. It was hypothesised that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions.

5.8. It was hypothesised that Prosocial Benefits would have a positive influence on Transfer Implementation Intentions.

5.9 It was hypothesised that Autonomous Motivation would have a positive indirect influence on Implementation Intentions through its relationship with Intrinsic Benefits and Prosocial Benefits.

The *a priori* hypothesised model did not fit the data well, $\chi^2$ (10) = 82.43, $p$ < .001, (CFI = .87; RMSEA = .19, 90% CI [.15, .23]; SRMR = .16). The model with standardised parameter coefficients is presented in Figure 5.4. The maximum likelihood estimates for all but two of the parameters in the model were significantly different from zero. The unstandardized coefficient for the path from Useful to Career to Autonomous Motivation was non-significant ($B$ = .03, $p$ = .61), as was the coefficient for the path from Autonomous Motivation to Transfer Implementation Intentions ($B$ = .03, $p$ < .63).

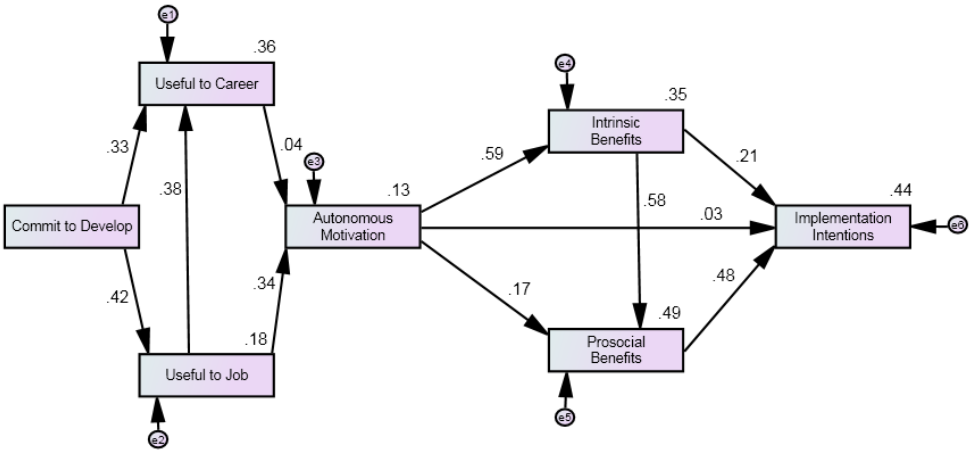


*Figure 5.4.* Study 2 *a priori* hypothesised structural model with standardised coefficients.

The non-significant path coefficients for the paths from Useful to Career to Autonomous Motivation and from Autonomous Motivation to Transfer Implementation Intentions were constrained to be zero, providing two additional degrees of freedom for the model in subsequent analyses, $\chi^2$ (12) = 82.92, $p < .001$ (CFI = .87; RMSEA = .17, 90% CI [.14, .21]; SRMR = .16).

To ascertain the source of possible misfit between the specified model and the data, a specification search was undertaken. The Langrange Multiplier Modification Indices (MIs) suggested that the addition of a path from Useful to Career to Intrinsic Benefits would decrease the $\chi^2_M$ by at least 27.890 for a decrease of one degree of freedom if the path was freely estimated. The MIs also suggested that the addition of a path between Useful to Job and Prosocial Benefits would decrease the $\chi^2_M$ by at least 24.608.

Caution is suggested in the freeing of parameters using MIs (Kline, 2011). From an SDT (Deci & Ryan, 1985) perspective, the qualitative Study 1 findings suggested that PD being useful to career and useful to job may facilitate the satisfaction of employees' basic psychological needs. This satisfaction is concordant

with future personal goals and aspirations (Vansteenkiste et al., 2006). It was considered reasonable that being seen as Useful to Career within the organisation may influence employees' valued personal development goals. It was also reasonable that being seen as Useful to Job may influence employees' aspirations to share what is learned for the benefit of others in the organisation. A path from Useful to Career to Intrinsic Benefits was therefore specified in the model, followed by a path from Useful to Job to Prosocial Benefits.

The difference in the fit of the model to the data was tested after the specification of each path. The first path to be added was that from Useful to Career to Intrinsic Benefits. As expected, the model fit improved, $\chi^2$ (11) = 51.34, $p < .001$, (CFI = .93; RMSEA = .13, 90% CI [.10, .17]; SRMR = .10). The chi-square difference between the initial and the re-specified nested model was significant, $\chi^2_D$ (1) = 31.58, $p < .001$ and the path from Useful to Career to Intrinsic Benefits was retained.

The second path to be added to the model was that from Useful to Job to Prosocial Benefits. Once again, the model fit improved, with $\chi^2$ (10) = 17.09, $p$ = .07, (CFI = .99; RMSEA = .06, 90% CI [.00, .11]; SRMR = .04). The chi-square difference between the first and second nested models was significant, with $\chi^2_D$ (1) = 34.25, $p < .001$. The standardised residual covariance values for the second nested model were less than 2.58 ($p$ = .01; range .00 to 1.95), suggesting that the model adequately accounted for the shared variance between the variables in the model (Byrne, 2010; Schumacker & Lomax, 2010). The second specified path was retained in the model. The final nested model with standardised parameter coefficients is presented in Figure 5.5. The unstandardized path coefficients with standard errors are presented in Table 5.3.

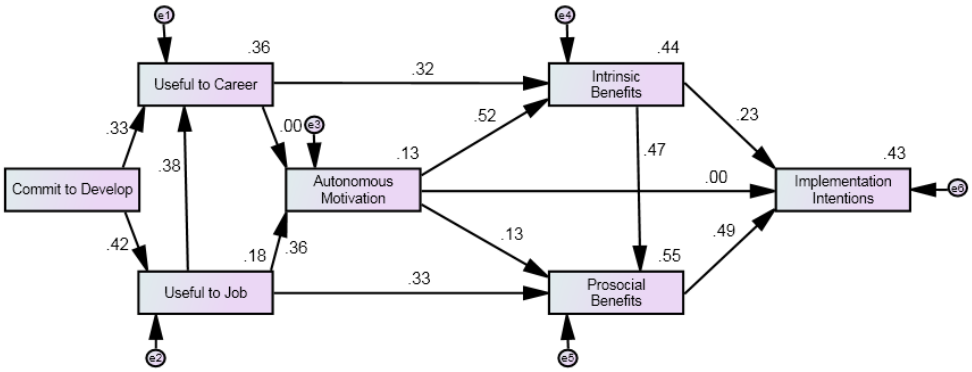


*Figure 5.5.* Final nested structural model with standardised coefficients.

While Autonomous Motivation did not directly influence Transfer Implementation Intentions, this variable had a positive indirect influence on Transfer Implementation Intentions (.29, $z = 5.02$, $p < .001$) through its relationship with Intrinsic Benefits and Prosocial Benefits. The final nested model explained 43% of the variance in Transfer Implementation Intentions.

Table 5.3

*Coefficients for Direct and Indirect Effects of Final Nested Structural Model*

| | Path coefficients | | | |
|---|---|---|---|---|
| Variable | Unstd | SE | Std | $R^2$ |
| *Useful to Job* | | | | .18 |
| Commitment to Development | .27*** | .04 | .42 | |
| *Useful to Career* | | | | .36 |
| Commitment to Development | .29*** | .06 | .33 | |
| Useful to Job | .53*** | .09 | .38 | |
| *Autonomous Motivation*[a] | | | | .13 |
| Useful to Job | .38*** | .07 | .36 | |
| Useful to Career | .00 | | | |
| *Intrinsic Benefits*[a] | | | | .44 |
| Autonomous Motivation | .53*** | .05 | .52 | |
| Useful to Career | .24*** | .04 | .32 | |
| *Prosocial Benefits*[a] | | | | .55 |
| Autonomous Motivation | .12* | .06 | .13 | |
| Intrinsic Benefits | .44*** | .06 | .47 | |
| Useful to Job | .32*** | .05 | .33 | |
| *Implementation Intentions*[a] | | | | .43 |
| *Direct* | | | | |
| Autonomous Motivation | .00 | | | |
| Intrinsic Benefits | .22** | .07 | .23 | |
| Prosocial Benefits | .50*** | .07 | .49 | |
| *Indirect*[b] | | | | |
| Autonomous Motivation | .29** | .06 | .30 | |

*Note*. $N$ = 204. Unstd = Unstandardised. SE = standard error. Std = standardised. $R^2$ = squared multiple correlation. [a] *Italicised* variable = criterion variable.

[b]Bootstrapped ML standard error. * $p < .05$. ** $p < .01$. *** $p < .001$.

## 5.7 Discussion

The overall aim of Study 2 was to test a structural model of proactive motivation energising employees' participation in non-mandatory PD that was informed by the quantitative results and qualitative findings of Study 1. The model was tested in a heterogeneous sample of employees (organisation non-specific). The core Proactive Motivation and Goal Processes model based on Parker et al. (2010) examined in Study 1 formed the basis of the Study 2 model. Commitment to Development, Useful to Job, Useful to Career, and Prosocial Benefits variables were added to the model, informed by the qualitative findings of Study 1. The relationships in the model were consistent with a Self-Determination Theory (Deci & Ryan, 1985) perspective. A conceptual model of the *a priori* hypothesised relationships among the study variables was depicted in Figure 5.3.

The hypothesised structural model did not fit the data well. The model was re-specified with two theoretically justifiable paths (Useful to Career to Intrinsic Benefits and Useful to Job to Prosocial Benefits). The specification of these paths was considered reasonable as being useful was associated with a contribution to employees' basic need satisfaction in the qualitative aspect of Study 1. From an SDT perspective, this satisfaction is concordant with progress toward future personal goals and aspirations (Vansteenkiste et al., 2006). The fit of the model was tested after the addition of each path. The final nested model was depicted in Figure 5.5. The model fit the data well and explained 43% of the variance in Transfer Implementation Intentions.

Hypothesis 5.1 that Commitment to Development would have a positive influence on both Useful to Career and Useful to Job was supported. This result suggested that the stronger employees' perceptions of their organisation's

Commitment to Development the more they perceive that non-mandatory PD is Useful to Job and Useful to Career. This result provided support for prior research that suggested that organisations play a facilitating and supportive role in sustaining employee development behaviour (Hurtz & Williams, 2009). In the non-mandatory context, these results suggest that a long-term commitment to an investment in employee development is likely to provide cues that influence employees' perceptions of the value of PD (Beier & Kanfer, 2010) when what is learned is used within their work organisation.

Hypothesis 5.2 that Useful to Job would have a positive influence on Useful to Career was also supported. This result suggested that when more favourable perceptions about being Useful to Job are held by employees, they are more likely to also perceive that PD is Useful to Career. Based on the Study 1 qualitative findings, this result supported the work of Nikandrou et al. (2009) who found a similar association among employees who self-initiated participation in a management training program. The result of the current study suggested that what happens for employees' in their jobs, in terms of non-mandatory PD being useful to effectiveness and efficiency when undertaking tasks, is likely to influence how useful PD activities are seen to be in terms of longer-term career within the organisation.

Hypothesis 5.3 that both Useful to Job and Useful to Career would have a positive influence on Autonomous Motivation was partially supported. This result suggested that the more employees' perceive that non-mandatory PD is Useful to Job the greater their Autonomous Motivation to participate. However, being Useful to Career did not contribute to employees' Autonomous Motivation toward PD. While an unexpected outcome in relation to Useful to Career, this result suggests that the

salient consideration for employees' intrinsic interest and identification with the importance of non-mandatory PD is how useful they see these activities to their job.

Hypothesis 5.4 that Autonomous Motivation would have a positive influence on Intrinsic Benefits and Transfer Implementation Intentions was partially supported. This result suggested that the greater employees' Autonomous Motivation for participation in PD the more they envisioned Intrinsic Benefits to be associated with participation. This result extended the influence found in Study 1 to a heterogeneous sample of employees and provided further support to prior research that has demonstrated similar associations (e.g., Maurer et al., 2003; Sheldon & Kasser, 1995). However, the direct influence of Autonomous Motivation on employees' Transfer Implementation Intentions demonstrated in Study 1 was not supported. This result was not consistent with the prior research that found that autonomous motivation influenced implementation plans and progress toward personal goals (e.g., Koestner et al., 2006, 2008; Sheldon & Elliot, 1999). The most likely explanation for this result is the inclusion of Prosocial Benefits in the model, with employees seeing this benefit as a greater influence on Transfer Implementation Intentions than finding these activities interesting and personally important.

Hypothesis 5.5 that Autonomous Motivation would have a positive influence on Prosocial Benefits was supported, suggesting that the greater employees' Autonomous Motivation for participation in non-mandatory PD the more they envision Prosocial Benefits are facilitated by participation. This result supported the concordance between autonomous motivation and different types of intrinsic goals in the SDT literature (e.g., Gagné, 2009; Grant & Ashford, 2008; Vansteenkiste et al., 2006). The result suggested that, in the non-mandatory PD context, the intrinsic goals or aspirations associated with Autonomous Motivation for participation relate

not only to personal growth, but also to benefiting others in the workplace with what is learned.

Hypothesis 5.6 was that Intrinsic Benefits would have a positive influence on Prosocial Benefits. This hypothesis was supported and suggested that the more employees' envision Intrinsic Benefits will come from participation in non-mandatory PD the greater their aspiration toward Prosocial Benefits. By demonstrating a relationship between these goals, this result extended the work of a number of researchers (e.g., Gagné, 2009; Grant & Ashford, 2008; Vansteenkiste et al., 2006) that proposed that individuals' intrinsic goals relate to community contributions that benefit others as well as to personal growth. When employees see non-mandatory PD as contributing to their personal development goals this influences their aspirations to share and benefit others with what is learned.

Hypothesis 5.7 that Intrinsic Benefits would have a positive influence on Transfer Implementation Intentions was also supported. This result provided further support for the association demonstrated in Study 1, extending the result to a heterogeneous sample of employees. Prior researchers have also demonstrated that individuals' who pursue more self-concordant personal and educational goals are likely to implement plans to achieve those goals and to sustain effort toward the achievement of those goals (Koestner et al., 2006, 2008; Sheldon & Elliot, 1999; Vansteenkiste, Simons, Lens, Sheldon et al., 2004).

Hypothesis 5.8 that Prosocial Benefits would have a positive influence on Transfer Implementation Intentions was supported. The more employees' envision Prosocial Benefits will come from non-mandatory PD the greater their Transfer Implementation Intentions. The work of London and Sessa (2007) suggested that prosocial aspirations could be seen as a proactive generative goal toward applying

what is learned in training to help others, thereby enhancing learning through practice. In the current study, this generative goal took the form of prosocial aspirations that influenced the intention to use specific strategies that could set the scene for the use of what is learned in the workplace.

Hypothesis 5.9 that Autonomous Motivation would have a positive indirect influence on Implementation Intentions through its relationship with Intrinsic Benefits and Prosocial Benefits was supported. This result extended the indirect influence of Autonomous Motivation on Transfer Implementation Intentions through its relationship with Intrinsic Benefits demonstrated in Study 1. The result of the current study suggested that some of the influence of Autonomous Motivation on Transfer Implementation Intentions occurred because employees' believed that non-mandatory PD would contribute to their future personal development and also because they aspired to use what is learned in PD to help others in the workplace. This result extended the results of Study 1, demonstrating the central role of different intrinsic goals to employees' participation in non-mandatory PD. The result also provided further support for the central nature of goals in the training and development (Colquitt et al., 2000; Latham, 2007) and proactive work motivation (Bindl & Parker, 2010; Parker et al., 2010) literature.

**5.8 Implications of Study 2**

Study 2 extended the support demonstrated in Study 1 for employees' participation in non-mandatory PD as a proactive, self-determined process. The model supported the relationship between an autonomy-supportive work environment, autonomous motivations, and more intrinsic goals and aspirations proposed and demonstrated in the SDT (Deci & Ryan, 1985, 2000) literature. The results suggest that when participation in non-mandatory PD is supported by an

organisational commitment to development, employees are likely to see the usefulness of these activities to their job and career. When useful to job, non-mandatory PD is likely to be valued by employees as interesting and personally important (Autonomous Motivation), which facilitates both envisioned intrinsic benefits and prosocial benefits from participation. In turn these benefits influence employees' transfer implementation intentions.

A novel contribution of this study is the importance of prosocial benefits as an aspect of the proactive motivation process energising employees' participation in non-mandatory PD and, in particular, their intention to implement planned strategies that set the scene for the use of what is learned in the workplace. Further to the results of Study 1, these results suggest that framing participation in non-mandatory PD and goal-setting strategies in terms of prosocial benefits as well as personal benefits is likely to contribute to sustained motivation for participation in these activities.

### 5.9 Limitations of Study 2

A potential limitation of the current study was that data were collected using self-report. As in Study 1, this strategy seemed appropriate because the focus of the research was employees' self-perceived motivations, attitudes, and intentions (Gegenfurtner et al., 2010). With this in mind, several of the procedural strategies used in Study 1 were again used to minimise potential common-method and response-bias (Podsakoff et al., 2012). The accuracy of responses was facilitated by voluntary participation, with participants encouraged to be open in providing their views. The social-desirability of responses was not considered to be potentially serious, as the research was conducted apart from employees' work organisation, the

nature of the information requested was not overly-sensitive, and responses were anonymous (Podsakoff et al., 2012).

The study was cross-sectional in nature, with employees perceptions measured at one point-in-time. While the model was developed based on a theoretical process supported by the empirical literature and qualitative findings, longitudinal research would provide support to the causal relations in the model. One strategy would be to measure employees' perceptions of the antecedent variables followed by the motivation and goal processes variables at a second point-in-time, prior to participation.

The participants of the study were Alumni of a University or colleagues of Alumni. Therefore, the model may not generalise to samples of employees who do not have a university qualification or work with someone who does. Further research could test the replication of results by applying the model to other populations of employees. Testing the model in a further sample would also allow the validity of the re-specified paths from Useful to Career to Intrinsic Benefits and from Useful to Job to Prosocial Benefits to be tested, as well as the non-significant associations found between Useful to Career and Autonomous Motivation and Autonomous Motivation and Transfer Implementation Intentions.

### 5.10 Looking Forward

Participants in the current study were asked to indicate whether they would be interested to participate in a follow-up study. This follow-up study is in its initial stages and will form part of a wider-scale longitudinal study.

The current study included variables related to the usefulness of non-mandatory PD to employees' career and job. These variables were identified in the qualitative aspect of Study 1 as contributors to the fulfilment of the SDT basic

psychological needs. Further research could examine the relationships between autonomy-supportive organisational context, autonomous motivation, and autonomy, competence, and relatedness variables. This strategy would provide an enhanced understanding of the motivations energising employees' proactive participation in non-mandatory PD from an SDT perspective. This research could extend to an examination of the degree to which transfer is enhanced under conditions of self-initiated participation in non-mandatory PD (autonomy), confidence in applying what is learned in the workplace (competence), and the social support provided by the environment (relatedness). Undertaking such a study has the potential to further inform the proactive management of the organisational context from an SDT perspective to create an autonomy-supportive environment that is more conducive to the transfer of what is learned in non-mandatory PD (Blume et al., 2010; Gagné & Deci, 2005).

Further research could also extend the model to include the striving aspect of the Model of Proactive Motivation Process and Antecedents (Parker et al., 2010). The study could examine change in terms of the implementation of strategies to facilitate the use of what is learned in non-mandatory PD and progress toward the fulfilment of envisioned goals. In terms of the transfer of what is learned in PD to the workplace, longer-term supervisor's ratings and performance outcomes may provide additional support for the validity of non-mandatory PD contributions in the workplace.

The current research was limited to employees' participation in non-mandatory PD provided within their work organisation. Future research could also incorporate work-related non-mandatory activities undertaken outside employees work organisations to determine whether the model generalises to these types of activities.

A further extension of the current research would be to compare the fit of the model across participation in non-mandatory and mandatory activities to determine whether the relationships demonstrated in the current research are specific to non-mandatory PD or extend to participation in mandatory PD also.

## Chapter 6 – Review and Conclusions

This dissertation contributed to an enhanced understanding of the multi-faceted nature of training motivation as encouraged in the empirical training and development literature (e.g., Grossman & Salas, 2011; Maurer & Tarulli, 1994; Salas & Cannon-Bowers, 2001). Employees' perceptions about participation in non-mandatory PD provided within their work organisation were examined within a proactive motivation framework (Parker et al., 2010) using a Self-Determination Theory (SDT; Deci & Ryan, 1985) perspective. With a focus on the self-initiated efforts of employees, these perspectives were seen to provide the best combination to inform the development of interventions to create an environment that achieves sustained participation in non-mandatory PD and performance outcomes.

In review, two studies examined the hypotheses related to the four research questions outlined in Chapter 1. Study 1 consisted of a quantitative and a qualitative aspect, while Study 2 was quantitative. Research questions 1 and 2 were quantitative in nature. Research question 1 related to the influence of the proactive self-determined motivational process energising employees' participation in non-mandatory PD on their Transfer Implementation Intentions, as a proactive plan toward change and an initial step in the transfer process. Research question 2 related to the influence of training- and development-related aspects of the organisational context on these proactive motivational processes.

The quantitative aspect of both Study 1 and Study 2 examined a model of the proactive motivation, goal processes, and organisational context antecedents energising employees' participation in non-mandatory PD. Study 1 was undertaken in a specific organisation as part of a wider review of PD provided with the organisation. The study addressed research question 1 to the extent that results

showed that employees' Transfer Implementation Intentions were energised by their Autonomous Motivation for participation in PD and the Intrinsic Benefits they envision from participation. Autonomous Motivation also exerted an indirect influence on Transfer Implementation Intentions through Intrinsic Benefits. However, Extrinsic Benefits did not influence employees' Transfer Implementation Intentions. This process generalised across academic and general employee groups.

Study 1 addressed research question 2 to the extent that the hypothesised results showed that a Positive Work Environment influenced both Autonomous Motivation and Transfer Implementation Intentions directly, while also demonstrating an indirect influence on Transfer Implementation Intentions. A re-specified nested model also suggested that Positive Work Environment influenced the degree to which employees' envisioned Intrinsic Benefits and Extrinsic Benefits from participation in non-mandatory PD.

Further to the quantitative Study 1 results, the qualitative aspect of Study 1 addressed research question 3, related to employees' views about the transfer of what they learn in PD to their work, from an SDT basic needs perspective (Deci & Ryan, 1985, 2000). It also addressed research question 4 related to employees' views about the benefits derived from participation in non-mandatory PD at a group level. The qualitative findings provided valuable information, suggesting that the time and energy employees' invest in participation in non-mandatory PD is considered worthwhile when these activities are useful to work and career. Non-mandatory PD was largely seen to contribute to autonomy, relatedness, and competence within the workplace. Employees also expressed the desire for a long-term organisational commitment to employee development involving non-mandatory PD.

An interesting theme identified in the qualitative findings was that of prosocial effort. This finding is important. Prosocial effort may represent a valuable aspect of non-mandatory PD, with employees interacting and sharing what they have learned, not only to improve processes (Noe & Colquitt, 2002), but also to help and benefit others within the organisation (Grant, 2008). With the proactive, largely self-initiated nature of participation in non-mandatory PD, this finding was consistent with the different types of intrinsic goals facilitated by autonomous motivations in the SDT literature (e.g., Sheldon & Kasser, 1995; Vansteenkiste et al., 2006).

The Study 1 qualitative findings subsequently informed the development of the Study 2 quantitative model, with the inclusion of organisational Commitment to Development, Useful to Job, and Useful to Career as antecedent variables to the motivation and goal processes model. Prosocial Benefits was also added to the Study 2 model as a future aspiration from participation.

Informed by the Study 1 outcomes, Study 2 was conducted in a heterogeneous sample of employees and demonstrated further support for participation in non-mandatory PD as a proactive, self-determined process. Study 2 answered research questions 1 and 2 to the extent that the results demonstrated that both Intrinsic Benefits and Prosocial Benefits influenced employees' Transfer Implementation Intentions. However, in this sample, with Prosocial Benefits in the model, Autonomous Motivation did not influence Transfer Implementation Intentions directly. Autonomous Motivation did demonstrate an indirect influence on Transfer Implementation Intentions. Commitment to Development influenced Useful to Job and Useful to Career. Useful to Job in turn influenced Autonomous Motivation, while the re-specified nested model supported the influence of Useful to Career on Intrinsic Benefits and Useful to Job on Prosocial Benefits.

In conclusion, the studies included in this dissertation provide initial support for employees' motivation to participate in non-mandatory PD within their work organisation as a proactive, self-determined process that includes transfer implementation intentions as a pre-participation indication of a commitment toward change and readiness to transfer. This support was demonstrated across two samples, one organisation specific and one organisation non-specific.

A number of variables were shown to influence employees' transfer implementation intentions. Together, the results of the two studies (including the qualitative study) highlight the importance of autonomous motivation, intrinsic and prosocial goals, and the provision of organisational support to facilitate proactive involvement in non-mandatory PD and pre-participation transfer implementation intentions. These influences are important, as participation and the use of what is learned are paramount to the success of non-mandatory PD activities (Goldstein & Ford, 2002), as well as to the achievement of envisioned goals (Mitchell & Daniels, 2003). The influence of prosocial benefits in the model is a particularly interesting result.

With autonomous motivation exerting an indirect influence on transfer implementation intentions through its relationship with intrinsic benefits and prosocial benefits, the central nature of intrinsic types of goals is highlighted for participation in non-mandatory PD. As discussed in sections 3.8 and 5.8, goal-setting strategies could outline to employees the intrinsic and prosocial benefits provided by non-mandatory PD, while at the same time making salient the necessity to develop specific plans to implement strategies that will set the scene for the use of what is learned, to facilitate the attainment of valued goals.

Proactive behaviour is influenced by the organisational context (Parker et al., 2010). The current research suggests a focus on the development of autonomy-supportive interventions related to a positive work environment transfer climate (goal cues, social cues, task cues, and positive reinforcement) and a long-term organisational commitment to employee development to create an environment that achieves sustained participation in non-mandatory PD.

With a focus on proactive participation in non-mandatory PD, these results inform an important aspect of the non-mandatory PD process. What occurs within PD activities and after participation is also critical to the effectiveness of these activities. However, if employees are not motivated to participate, a focus on the delivery of PD and the transfer of what is learned will not be useful (Beier & Kanfer, 2010).

The model would benefit from further testing in other organisational contexts and longitudinal studies. This research could extend the proactive motivation process for participation in non-mandatory PD to include what happens in the workplace. That is, how employees strive to implement their learning and how that relates to transfer implementation and outcomes in terms of productivity and performance, including prosocial behaviours (Parker et al., 2010). This research would also allow further testing of the non-significant relationships found in the hypothesised model to determine whether these associations are specific to the current samples or can be generalised more broadly to other samples of employees who participate in non-mandatory PD. While not a focus of Study 2, the non-significant relationship found between Extrinsic Benefits and Transfer Implementation Intentions in Study 1 could also be further investigated. Specific research could examine the relationship between Intrinsic Benefits, Extrinsic Benefits, and Transfer Implementation

Intentions to further understand the complexity of these relationships when PD is non-mandatory. The model could also be applied in the context of other types of activities (e.g., external non-mandatory work-related activities, mandatory activities) to determine whether the results generalise to participation in these activities.

The contribution of this research is an enhanced understanding of the proactive motivations energising participation in non-mandatory PD from an employee perspective. The management of strategies focussed on a proactive, self-determined approach to participation in non-mandatory PD has the potential to contribute to the effectiveness of these activities in terms of participation rates and beyond. Importantly, the current research suggests that facilitated employees who are energised to participate in non-mandatory PD have the potential to proactively use what is learned to facilitate others.

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## Appendix A

## Demographic Characteristics of Study 1 Sample

($N$ = 439)

| Demographic characteristic | | *N* |
|---|---|---|
| Employee group | Academic | 127 |
| | Level A | 11 |
| | Level B | 64 |
| | Level C | 29 |
| | Level D | 10 |
| | Level E | 6 |
| | Uniprep/ELT Level A | 5 |
| | Uniprep/ELT Level B | 1 |
| | Other | 1 |
| | General | 312 |
| | Level 1 to 3 | 16 |
| | Level 4 to 5 | 133 |
| | Level 6 to 7 | 86 |
| | Level 8 to 10 | 68 |
| | Other | 9 |
| Gender | Female | 281 |
| | Male | 158 |
| Age | Under 21 | 4 |
| | 21-30 | 63 |
| | 31-40 | 88 |
| | 41-50 | 140 |
| | 51-60 | 122 |
| | Over 60 | 22 |
| Employment Status | Continuing full-time | 318 |
| | Fixed term full-time | 64 |
| | Continuing fractional | 34 |
| | Fixed term fractional | 13 |
| | Casual | 10 |

(…continued)

| Demographic characteristic (continued) | | *n* |
|---|---|---|
| Time in organisation | Less than one year | 51 |
| | 1 to 2 years | 45 |
| | 3 to 5 years | 104 |
| | 6 to 10 years | 85 |
| | 11 to 15 years | 76 |
| | 16 to 20 years | 53 |
| | More than 20 years | 25 |
| Time in Faculty/Section | Less than one year | 110 |
| | 1 to 2 years | 60 |
| | 3 to 5 years | 106 |
| | 6 to 10 years | 67 |
| | 11 to 15 years | 55 |
| | 16 to 20 years | 29 |
| | More than 20 years | 12 |
| Time in role | Less than one year | 142 |
| | 1 to 2 years | 81 |
| | 3 to 5 years | 121 |
| | 6 to 10 years | 55 |
| | 11 to 15 years | 22 |
| | 16 to 20 years | 13 |
| | More than 20 years | 5 |
| Last attended PD activity | In last 12 months | 343 |
| | 1 to 2 years | 64 |
| | 2 to 3 years | 15 |
| | 3 to 4 years | 6 |
| | More than 4 years | 11 |

# Appendix B

## Ethical Clearance for Study 1

USQ
AUSTRALIA

University of Southern Queensland
TOOWOOMBA QUEENSLAND 4350
AUSTRALIA
TELEPHONE +61 7 4631 2300
CRICOS: QLD 00244B NSW 02225M

www.usq.edu.au

OFFICE OF RESEARCH AND HIGHER DEGREES
Ashley Steele
Research Ethics Officer
PHONE (07) 4631 2690 | FAX (07) 4631 2955
EMAIL steele@usq.edu.au

Thursday, 20 August 2009

Michael Sankey
Learning & Teaching Support Unit
USQ, Toowoomba Campus

**Re: Ethical Clearance – USQ Employee Professional Development Survey**

Dear Michael,

The Chair of the USQ Human Research Ethics Committee (HREC) recently reviewed your responses to the USQ HREC's conditions placed upon the ethical approval for the above project. Your project has been endorsed and full ethics approval was granted 20/08/2009. Your approval reference number is: **HO9REA082** and is valid until **20/08/2010.**

The Committee is required to monitor research projects that have received ethics clearance to ensure their conduct is not jeopardising the rights and interests of those who agreed to participate. Accordingly, you are asked to forward a **written report** to this office after twelve months from the date of this approval or upon completion of the project.

A questionnaire will be sent to you requesting details that will include: the status of the project; a statement from you as principal investigator, that the project is in compliance with any special conditions stated as a condition of ethical approval; and confirming the security of the data collected and the conditions governing access to the data. The questionnaire, available on the web, can be forwarded with your written report.

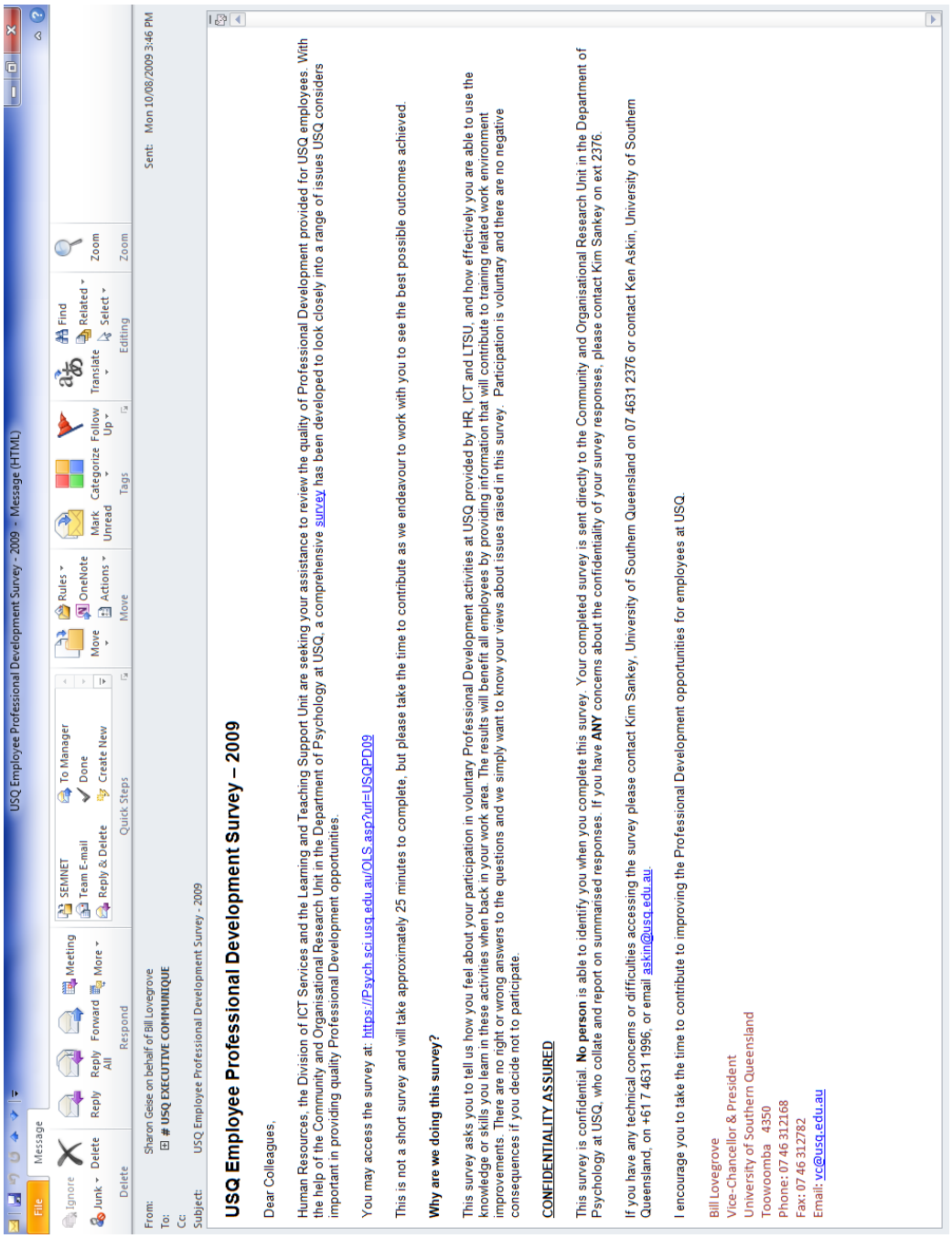
Please note that you are responsible for notifying the Committee immediately of any matter that might affect the continued ethical acceptability of the proposed procedure.

Yours sincerely

**Ashley Steele**
Research Ethics Officer
Office of Research and Higher Degrees

# Appendix C

## Copy of the Vice-Chancellor's Invitation Email – Study 1



USQ Employee Professional Development Survey - 2009 - Message (HTML)

From: Sharon Geise on behalf of Bill Lovegrove
To: # USQ EXECUTIVE COMMUNIQUE
Cc:
Subject: USQ Employee Professional Development Survey - 2009
Sent: Mon 10/08/2009 3:46 PM

**USQ Employee Professional Development Survey – 2009**

Dear Colleagues,

Human Resources, the Division of ICT Services and the Learning and Teaching Support Unit are seeking your assistance to review the quality of Professional Development provided for USQ employees. With the help of the Community and Organisational Research Unit in the Department of Psychology at USQ, a comprehensive survey has been developed to look closely into a range of issues USQ considers important in providing quality Professional Development opportunities.

You may access the survey at: https://Psych.sci.usq.edu.au/OLS.asp?url=USQPD09

This is not a short survey and will take approximately 25 minutes to complete, but please take the time to contribute as we endeavour to work with you to see the best possible outcomes achieved.

**Why are we doing this survey?**

This survey asks you to tell us how you feel about your participation in voluntary Professional Development activities at USQ provided by HR, ICT and LTSU, and how effectively you are able to use the knowledge or skills you learn in these activities when back in your work area. The results will benefit all employees by providing information that will contribute to training related work environment improvements. There are no right or wrong answers to the questions and we simply want to know your views about issues raised in this survey. Participation is voluntary and there are no negative consequences if you decide not to participate.

**CONFIDENTIALITY ASSURED**

This survey is confidential. **No person** is able to identify you when you complete this survey. Your completed survey is sent directly to the Community and Organisational Research Unit in the Department of Psychology at USQ, who collate and report on summarised responses. If you have **ANY** concerns about the confidentiality of your survey responses, please contact Kim Sankey on ext 2376.

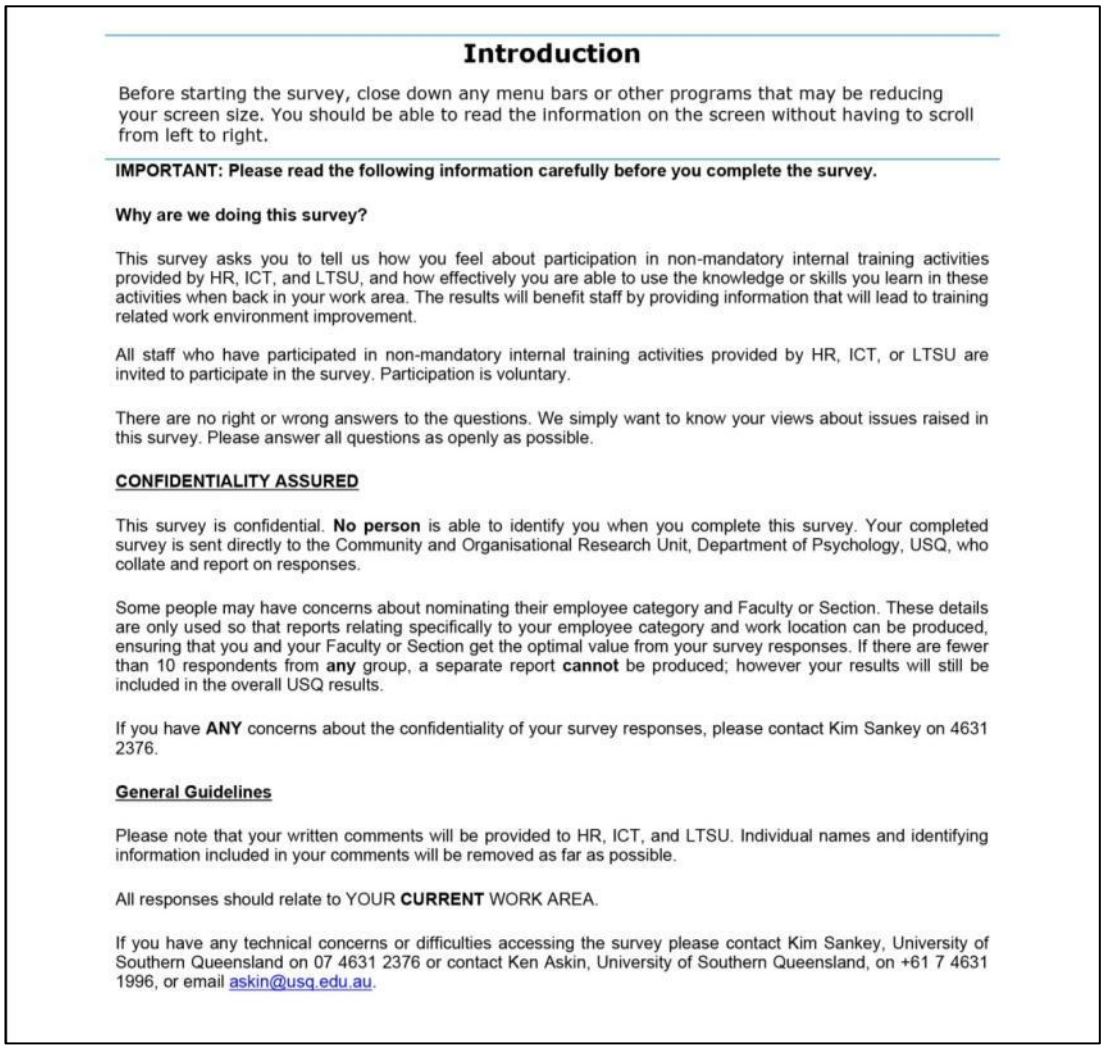
If you have any technical concerns or difficulties accessing the survey please contact Kim Sankey, University of Southern Queensland on 07 4631 2376 or contact Ken Askin, University of Southern Queensland, on +617 4631 1996, or email askin@usq.edu.au.

I encourage you to take the time to contribute to improving the Professional Development opportunities for employees at USQ.

Bill Lovegrove
Vice-Chancellor & President
University of Southern Queensland
Toowoomba 4350
Phone: 07 46 312168
Fax: 07 46 312782
Email: vc@usq.edu.au

# Appendix D

## Study 1 Online Professional Development Questionnaire



### Introduction

Before starting the survey, close down any menu bars or other programs that may be reducing your screen size. You should be able to read the information on the screen without having to scroll from left to right.

**IMPORTANT: Please read the following information carefully before you complete the survey.**

**Why are we doing this survey?**

This survey asks you to tell us how you feel about participation in non-mandatory internal training activities provided by HR, ICT, and LTSU, and how effectively you are able to use the knowledge or skills you learn in these activities when back in your work area. The results will benefit staff by providing information that will lead to training related work environment improvement.

All staff who have participated in non-mandatory internal training activities provided by HR, ICT, or LTSU are invited to participate in the survey. Participation is voluntary.

There are no right or wrong answers to the questions. We simply want to know your views about issues raised in this survey. Please answer all questions as openly as possible.

**CONFIDENTIALITY ASSURED**

This survey is confidential. **No person** is able to identify you when you complete this survey. Your completed survey is sent directly to the Community and Organisational Research Unit, Department of Psychology, USQ, who collate and report on responses.

Some people may have concerns about nominating their employee category and Faculty or Section. These details are only used so that reports relating specifically to your employee category and work location can be produced, ensuring that you and your Faculty or Section get the optimal value from your survey responses. If there are fewer than 10 respondents from **any** group, a separate report **cannot** be produced; however your results will still be included in the overall USQ results.

If you have **ANY** concerns about the confidentiality of your survey responses, please contact Kim Sankey on 4631 2376.

**General Guidelines**

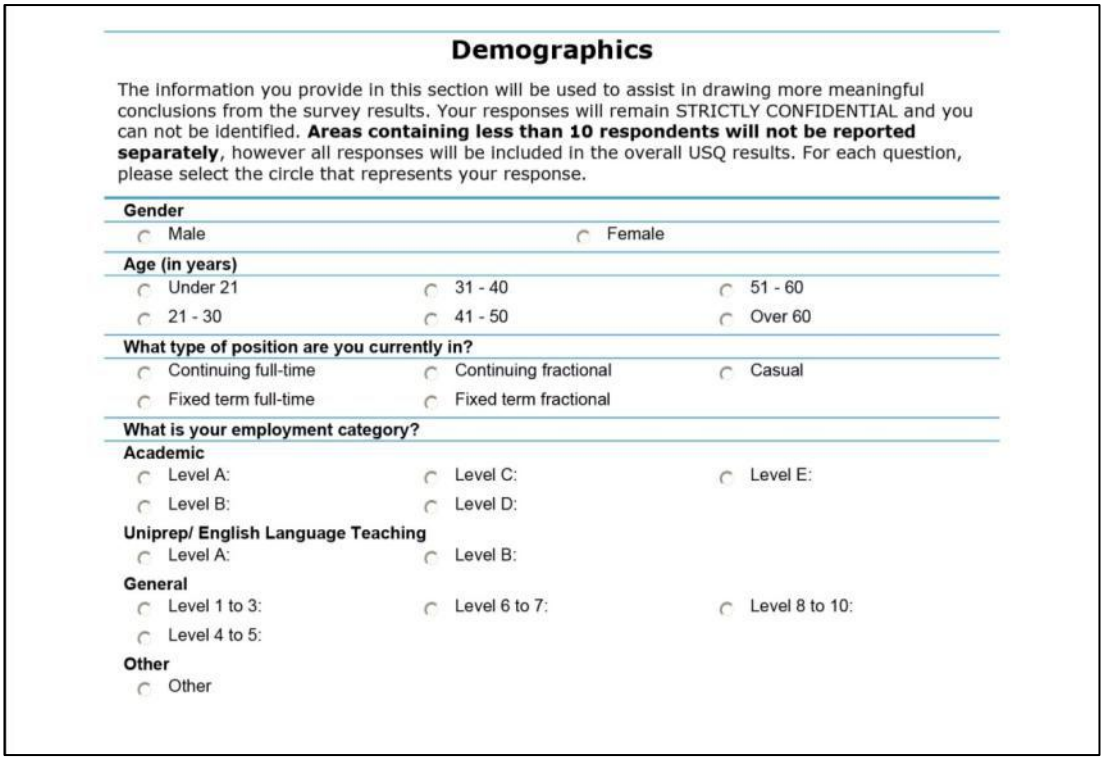
Please note that your written comments will be provided to HR, ICT, and LTSU. Individual names and identifying information included in your comments will be removed as far as possible.

All responses should relate to YOUR **CURRENT** WORK AREA.

If you have any technical concerns or difficulties accessing the survey please contact Kim Sankey, University of Southern Queensland on 07 4631 2376 or contact Ken Askin, University of Southern Queensland, on +61 7 4631 1996, or email askin@usq.edu.au.

*Note*. HR = Human Resources. ICT = Information Communication Technology.

LTSU = Learning and Teaching Support Unit.



## Demographics

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL and you can not be identified. **Areas containing less than 10 respondents will not be reported separately**, however all responses will be included in the overall USQ results. For each question, please select the circle that represents your response.

**Gender**

- Male
- Female

**Age (in years)**

- Under 21
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- Over 60

**What type of position are you currently in?**

- Continuing full-time
- Fixed term full-time
- Continuing fractional
- Fixed term fractional
- Casual

**What is your employment category?**

**Academic**

- Level A:
- Level B:
- Level C:
- Level D:
- Level E:

**Uniprep/ English Language Teaching**

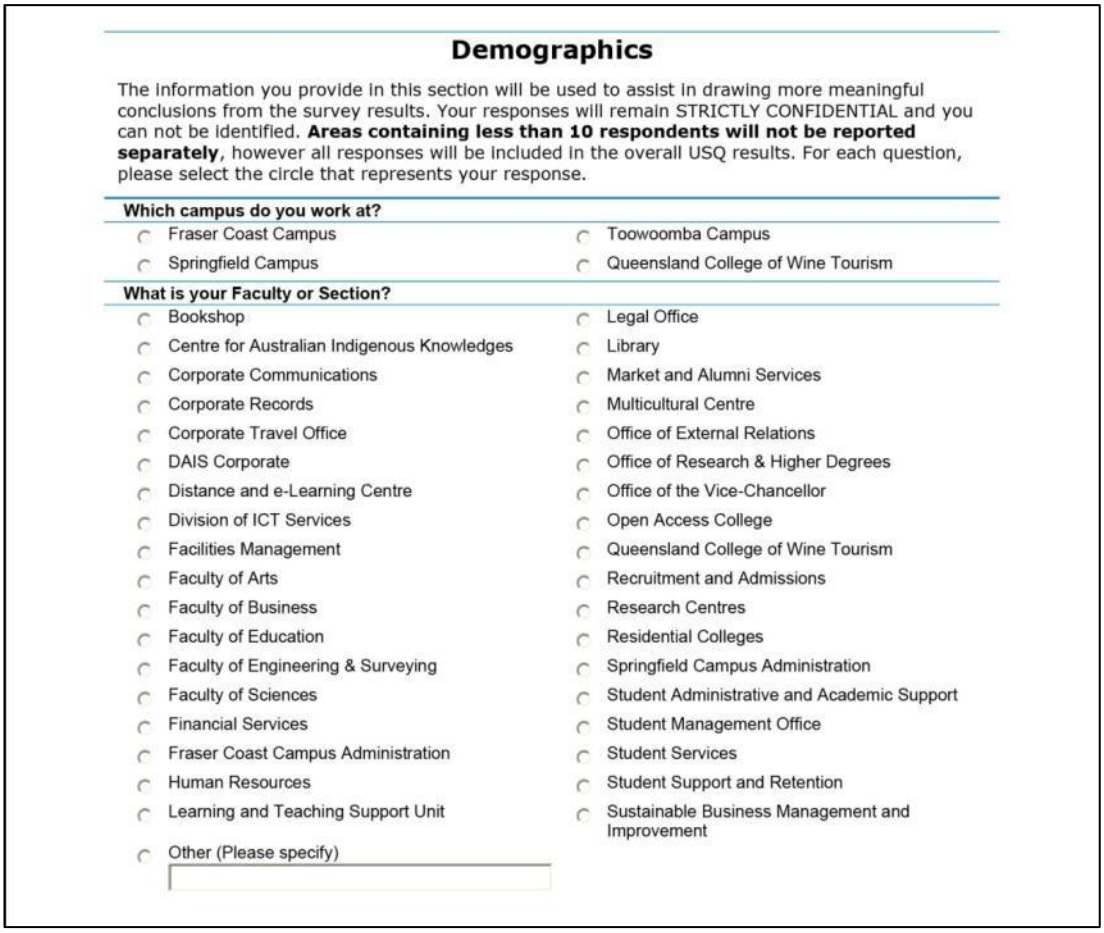
- Level A:
- Level B:

**General**

- Level 1 to 3:
- Level 4 to 5:
- Level 6 to 7:
- Level 8 to 10:

**Other**

- Other



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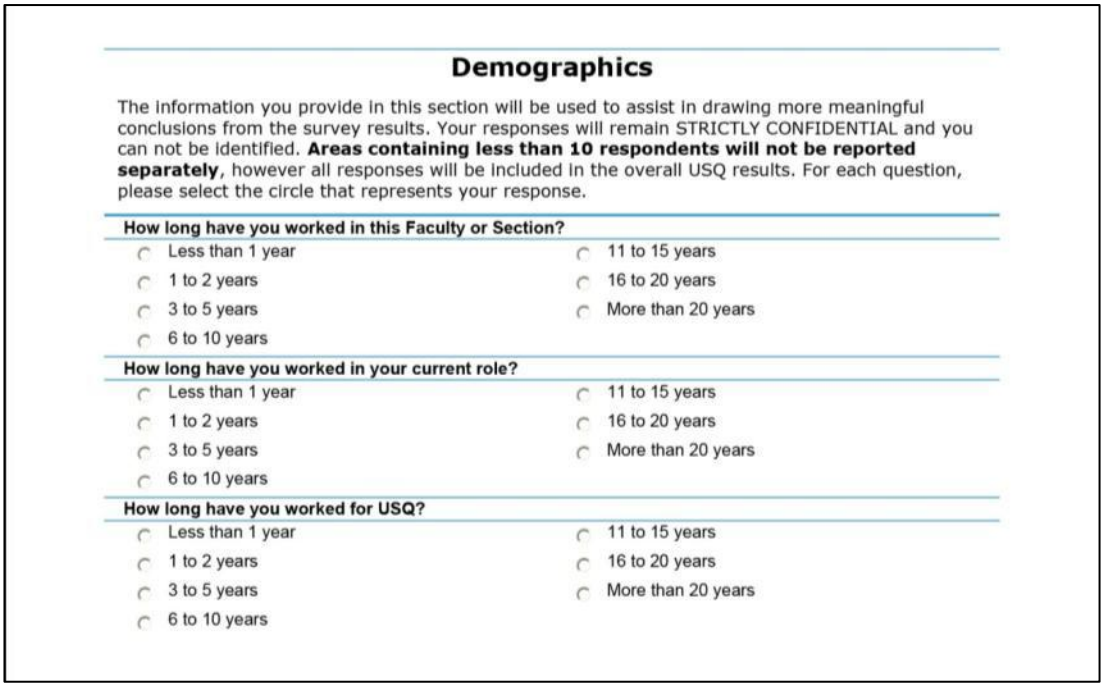
**Which campus do you work at?**

- Fraser Coast Campus
- Springfield Campus
- Toowoomba Campus
- Queensland College of Wine Tourism

**What is your Faculty or Section?**

- Bookshop
- Centre for Australian Indigenous Knowledges
- Corporate Communications
- Corporate Records
- Corporate Travel Office
- DAIS Corporate
- Distance and e-Learning Centre
- Division of ICT Services
- Facilities Management
- Faculty of Arts
- Faculty of Business
- Faculty of Education
- Faculty of Engineering & Surveying
- Faculty of Sciences
- Financial Services
- Fraser Coast Campus Administration
- Human Resources
- Learning and Teaching Support Unit
- Legal Office
- Library
- Market and Alumni Services
- Multicultural Centre
- Office of External Relations
- Office of Research & Higher Degrees
- Office of the Vice-Chancellor
- Open Access College
- Queensland College of Wine Tourism
- Recruitment and Admissions
- Research Centres
- Residential Colleges
- Springfield Campus Administration
- Student Administrative and Academic Support
- Student Management Office
- Student Services
- Student Support and Retention
- Sustainable Business Management and Improvement
- Other (Please specify)



## Demographics

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL and you can not be identified. **Areas containing less than 10 respondents will not be reported separately**, however all responses will be included in the overall USQ results. For each question, please select the circle that represents your response.

**How long have you worked in this Faculty or Section?**

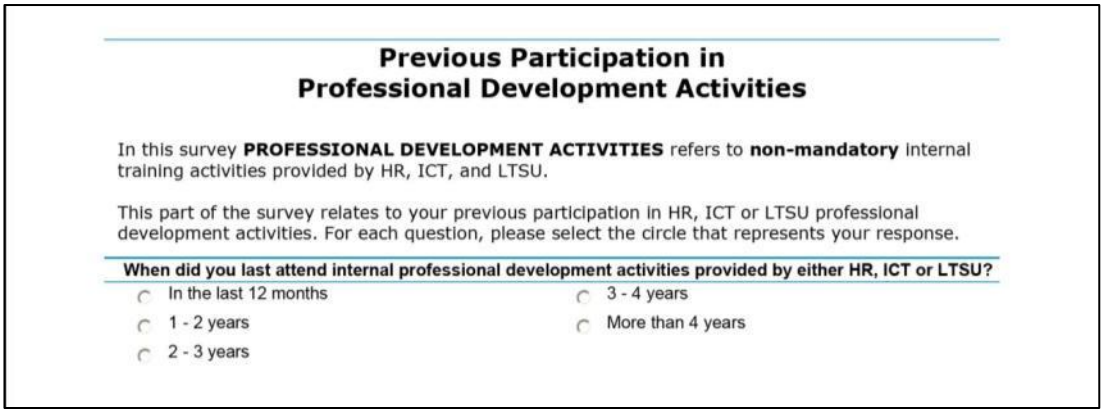
- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years

**How long have you worked in your current role?**

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years

**How long have you worked for USQ?**

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years



## Previous Participation in Professional Development Activities

In this survey **PROFESSIONAL DEVELOPMENT ACTIVITIES** refers to **non-mandatory** internal training activities provided by HR, ICT, and LTSU.

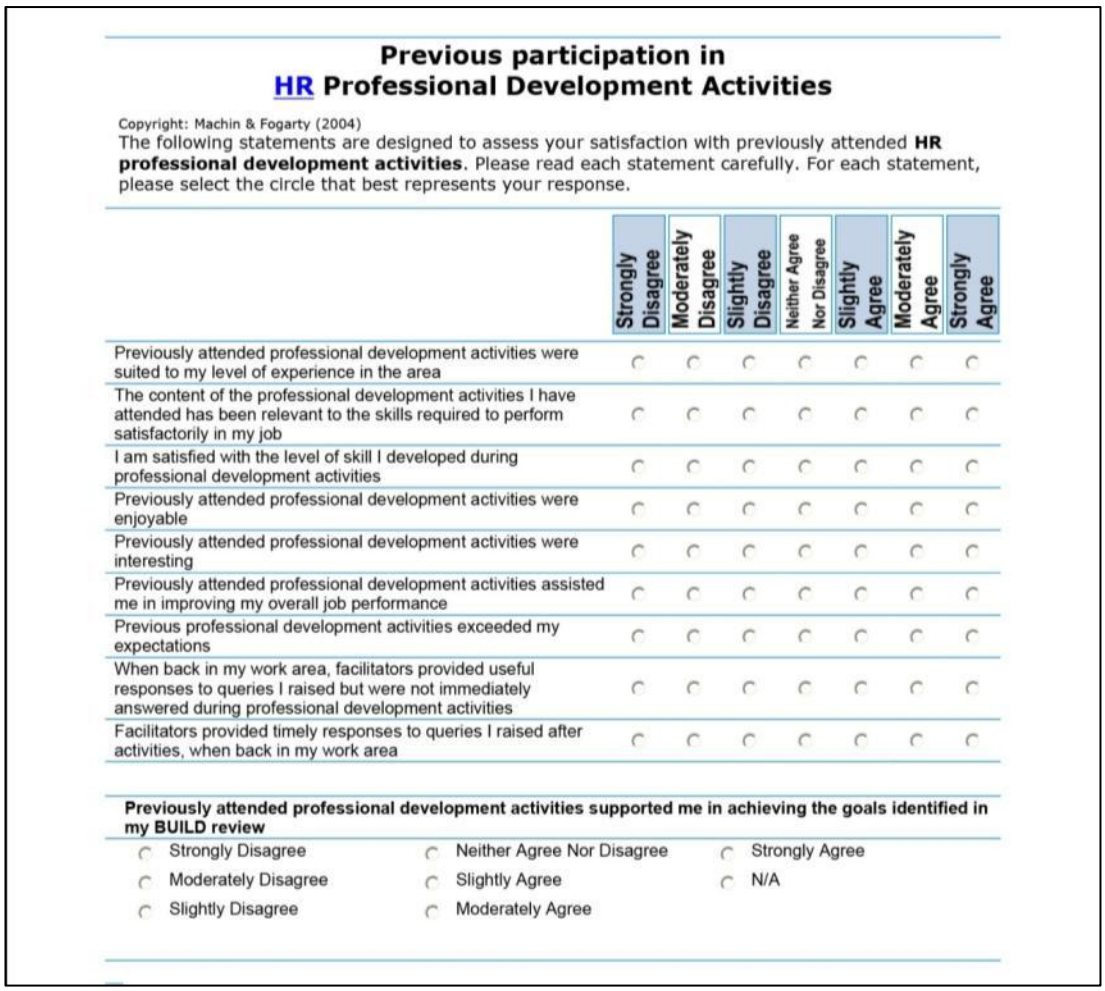
This part of the survey relates to your previous participation in HR, ICT or LTSU professional development activities. For each question, please select the circle that represents your response.

**When did you last attend internal professional development activities provided by either HR, ICT or LTSU?**

- In the last 12 months
- 1 - 2 years
- 2 - 3 years
- 3 - 4 years
- More than 4 years

## Previous participation in Professional Development Activities

| Please indicate how many times in the last 12 months you have attended activities within the programs listed below: | None | Once | Twice | 3 or more times |
|---|---|---|---|---|
| HR Professional Staff Development Programs (including Management & Leadership Development Programs) | ○ | ○ | ○ | ○ |
| ICT Training Programs | ○ | ○ | ○ | ○ |
| LTSU Academic Professional Development Programs | ○ | ○ | ○ | ○ |



## Previous participation in HR Professional Development Activities

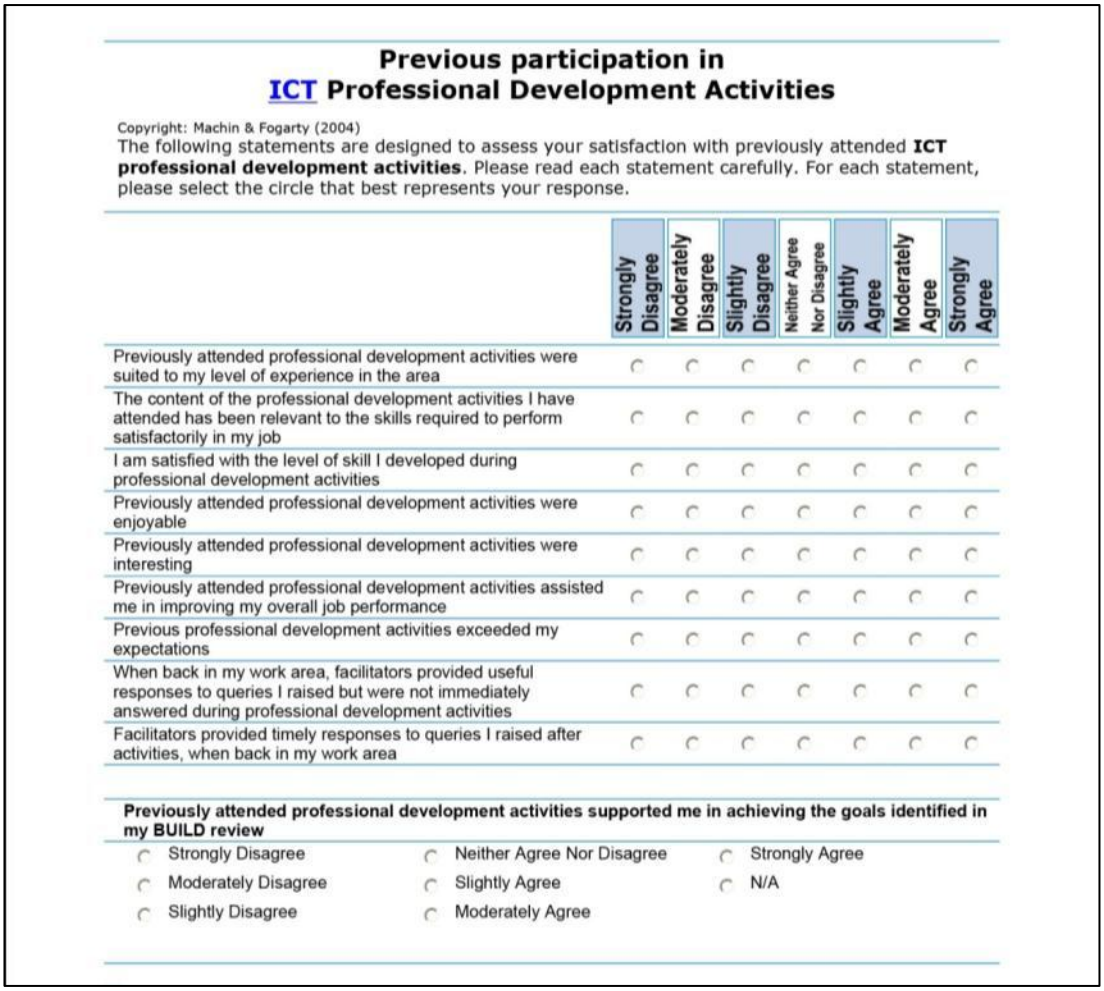


The following statements are designed to assess your satisfaction with previously attended **HR professional development activities**. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree Nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Previously attended professional development activities were suited to my level of experience in the area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The content of the professional development activities I have attended has been relevant to the skills required to perform satisfactorily in my job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am satisfied with the level of skill I developed during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were enjoyable | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were interesting | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities assisted me in improving my overall job performance | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previous professional development activities exceeded my expectations | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When back in my work area, facilitators provided useful responses to queries I raised but were not immediately answered during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Facilitators provided timely responses to queries I raised after activities, when back in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Previously attended professional development activities supported me in achieving the goals identified in my BUILD review**

| | | |
|---|---|---|
| ○ Strongly Disagree | ○ Neither Agree Nor Disagree | ○ Strongly Agree |
| ○ Moderately Disagree | ○ Slightly Agree | ○ N/A |
| ○ Slightly Disagree | ○ Moderately Agree | |



## Previous participation in ICT Professional Development Activities



The following statements are designed to assess your satisfaction with previously attended **ICT professional development activities**. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree Nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Previously attended professional development activities were suited to my level of experience in the area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The content of the professional development activities I have attended has been relevant to the skills required to perform satisfactorily in my job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am satisfied with the level of skill I developed during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were enjoyable | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were interesting | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities assisted me in improving my overall job performance | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previous professional development activities exceeded my expectations | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When back in my work area, facilitators provided useful responses to queries I raised but were not immediately answered during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Facilitators provided timely responses to queries I raised after activities, when back in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Previously attended professional development activities supported me in achieving the goals identified in my BUILD review**

| | | |
|---|---|---|
| ○ Strongly Disagree | ○ Neither Agree Nor Disagree | ○ Strongly Agree |
| ○ Moderately Disagree | ○ Slightly Agree | ○ N/A |
| ○ Slightly Disagree | ○ Moderately Agree | |

## Previous participation in LTSU Professional Development Activities



The following statements are designed to assess your satisfaction with previously attended **LTSU professional development activities**. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree Nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Previously attended professional development activities were suited to my level of experience in the area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The content of the professional development activities I have attended has been relevant to the skills required to perform satisfactorily in my job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am satisfied with the level of skill I developed during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were enjoyable | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities were interesting | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previously attended professional development activities assisted me in improving my overall job performance | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Previous professional development activities exceeded my expectations | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When back in my work area, facilitators provided useful responses to queries I raised but were not immediately answered during professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Facilitators provided timely responses to queries I raised after activities, when back in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Previously attended professional development activities supported me in achieving the goals identified in my BUILD review**

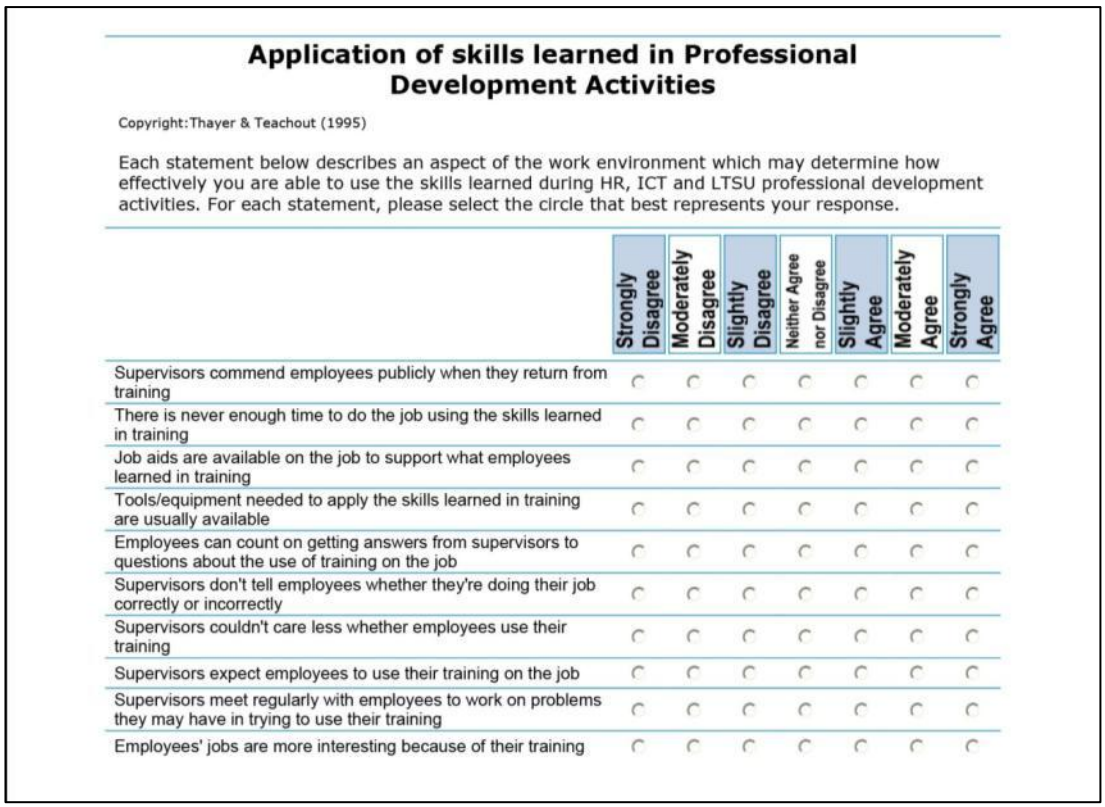
- ○ Strongly Disagree
- ○ Moderately Disagree
- ○ Slightly Disagree
- ○ Neither Agree Nor Disagree
- ○ Slightly Agree
- ○ Moderately Agree
- ○ Strongly Agree
- ○ N/A

## Application of skills learned in Professional Development Activities



Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Supervisors give employees the chance to try out their training on the job immediately | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors in my work area oppose the use of techniques learned in training that staff bring back to their jobs | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees have so little chance to use some of the skills learned in training, that they probably couldn't perform them later | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors pay only lip service to the value and usefulness of training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors appreciate employees who do their jobs using skills learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors give poor performance reports to those who use skills learned in training instead of his/her way | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Work in my work area is designed so that employees can do the work the way they were trained | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors help employees set realistic goals for performing their work as a result of their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When employees fail to use their training, they can expect to be reprimanded | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Application of skills learned in Professional Development Activities

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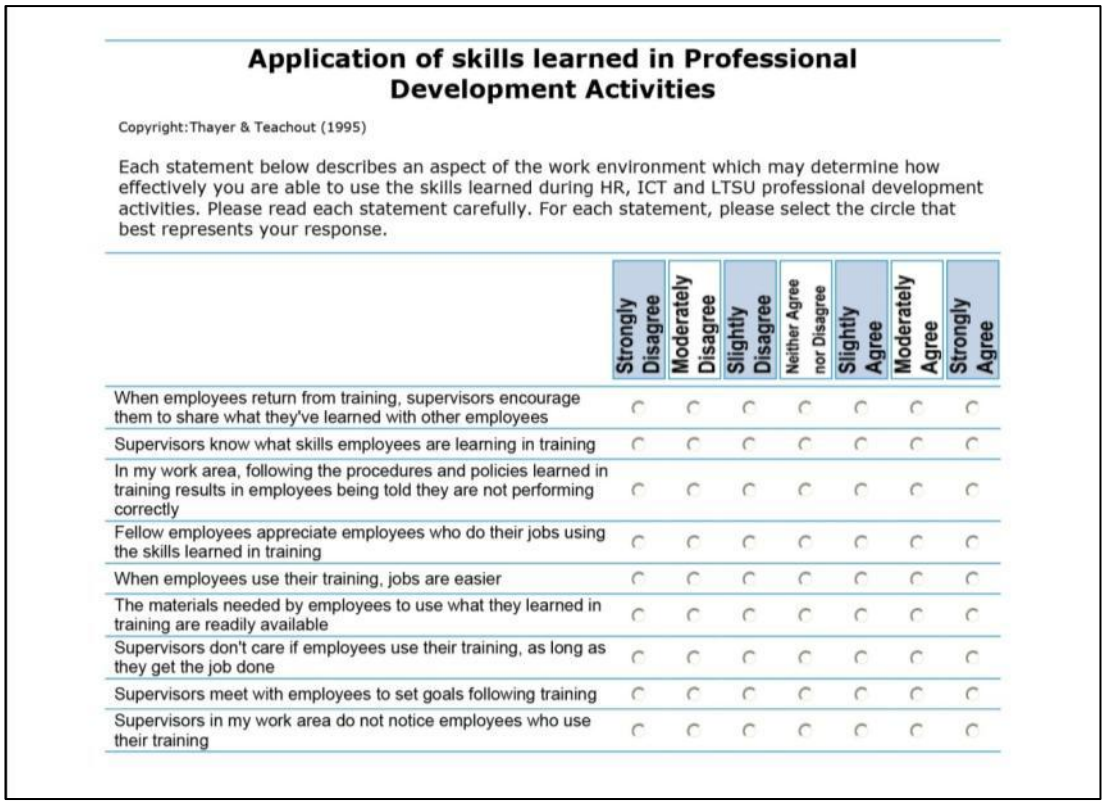
Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Supervisors commend employees publicly when they return from training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| There is never enough time to do the job using the skills learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Job aids are available on the job to support what employees learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tools/equipment needed to apply the skills learned in training are usually available | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees can count on getting answers from supervisors to questions about the use of training on the job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors don't tell employees whether they're doing their job correctly or incorrectly | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors couldn't care less whether employees use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors expect employees to use their training on the job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors meet regularly with employees to work on problems they may have in trying to use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees' jobs are more interesting because of their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Application of skills learned in Professional Development Activities

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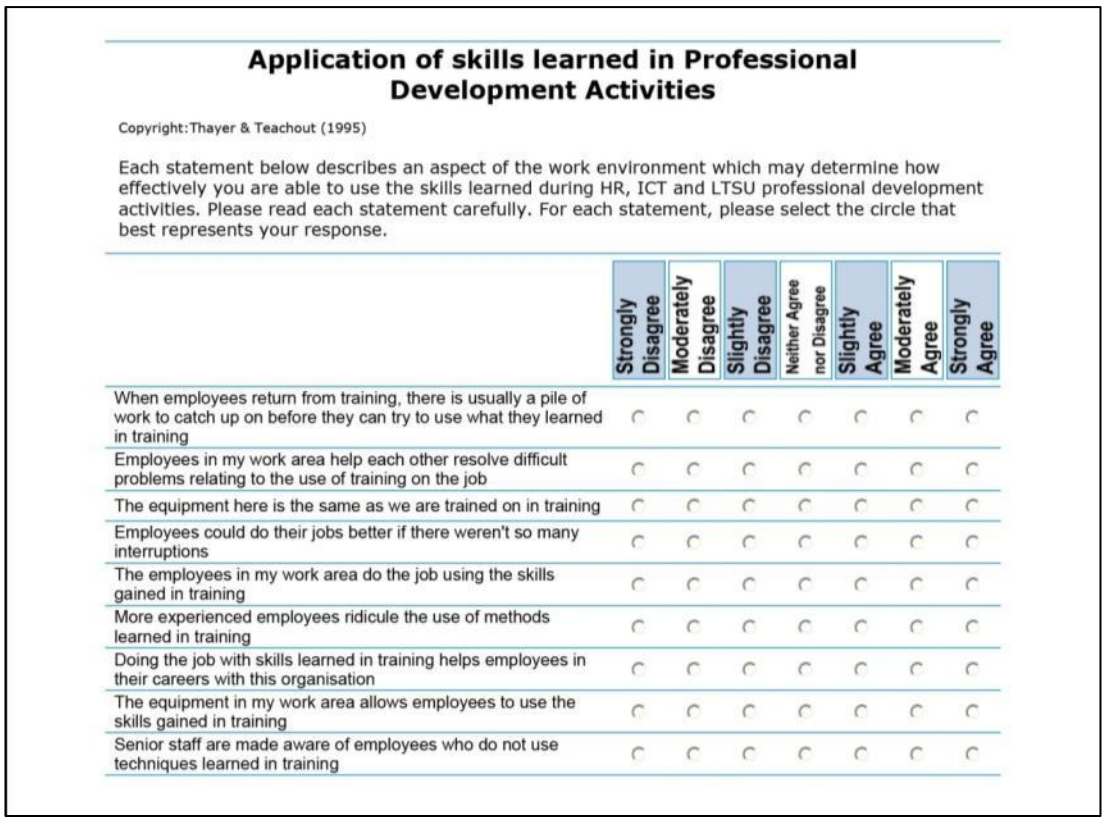
Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| When employees return from training, supervisors encourage them to share what they've learned with other employees | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors know what skills employees are learning in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| In my work area, following the procedures and policies learned in training results in employees being told they are not performing correctly | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Fellow employees appreciate employees who do their jobs using the skills learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When employees use their training, jobs are easier | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The materials needed by employees to use what they learned in training are readily available | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors don't care if employees use their training, as long as they get the job done | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors meet with employees to set goals following training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors in my work area do not notice employees who use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

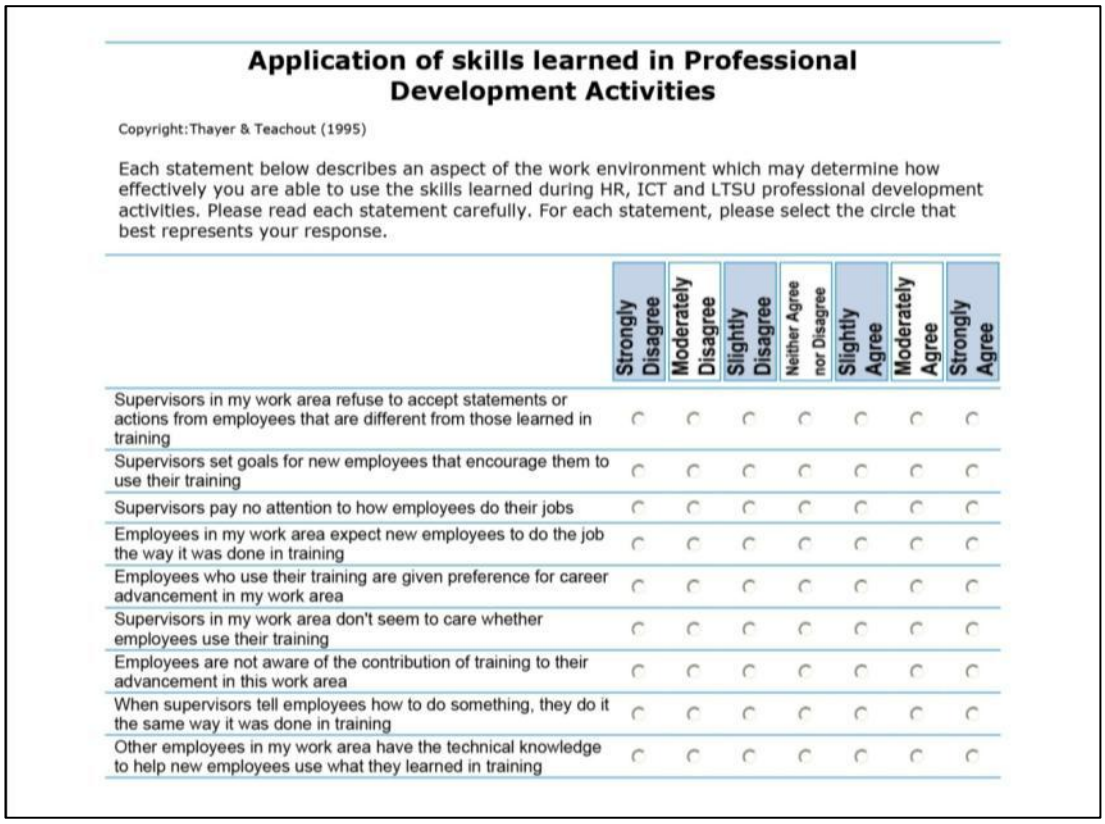


## Application of skills learned in Professional Development Activities



Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| When employees return from training, there is usually a pile of work to catch up on before they can try to use what they learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees in my work area help each other resolve difficult problems relating to the use of training on the job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The equipment here is the same as we are trained on in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees could do their jobs better if there weren't so many interruptions | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The employees in my work area do the job using the skills gained in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| More experienced employees ridicule the use of methods learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Doing the job with skills learned in training helps employees in their careers with this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The equipment in my work area allows employees to use the skills gained in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Senior staff are made aware of employees who do not use techniques learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Application of skills learned in Professional Development Activities

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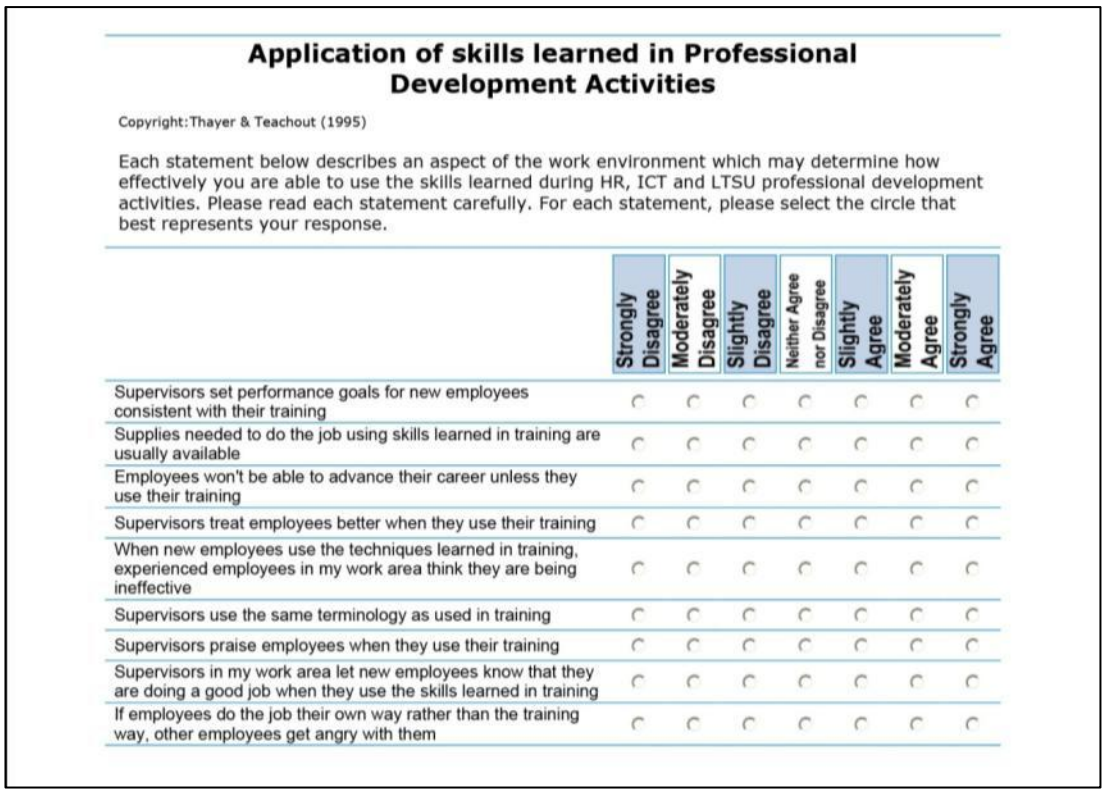
Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Supervisors in my work area refuse to accept statements or actions from employees that are different from those learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors set goals for new employees that encourage them to use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors pay no attention to how employees do their jobs | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees in my work area expect new employees to do the job the way it was done in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees who use their training are given preference for career advancement in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors in my work area don't seem to care whether employees use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees are not aware of the contribution of training to their advancement in this work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When supervisors tell employees how to do something, they do it the same way it was done in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Other employees in my work area have the technical knowledge to help new employees use what they learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



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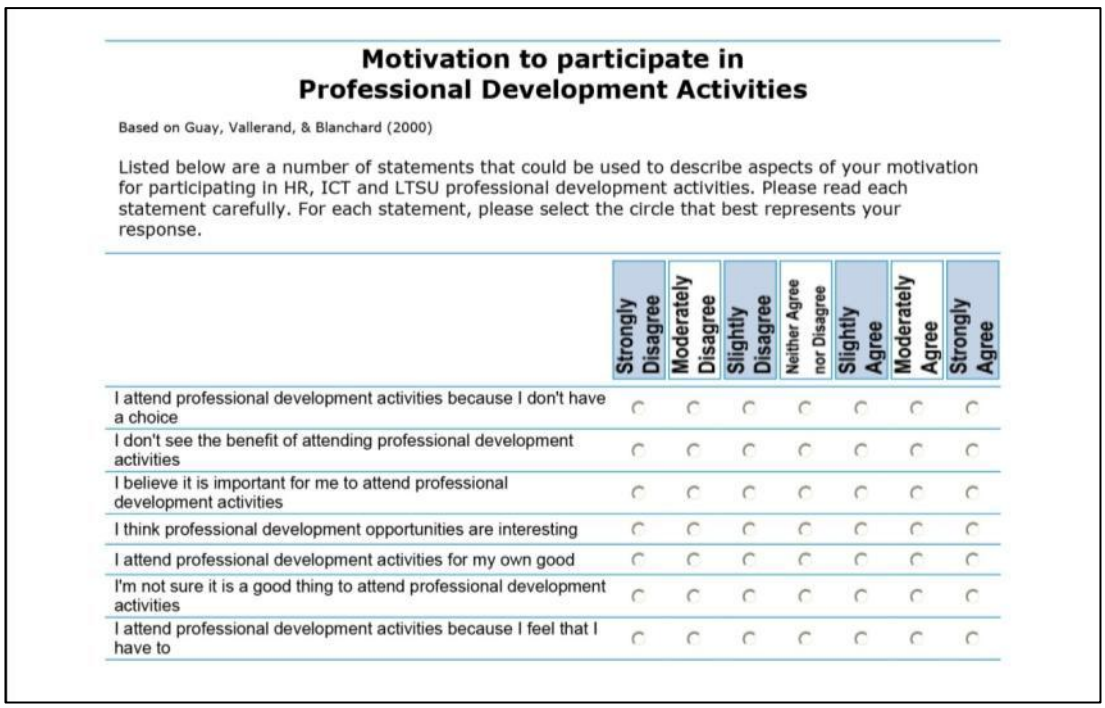
Each statement below describes an aspect of the work environment which may determine how effectively you are able to use the skills learned during HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Supervisors set performance goals for new employees consistent with their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supplies needed to do the job using skills learned in training are usually available | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Employees won't be able to advance their career unless they use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors treat employees better when they use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When new employees use the techniques learned in training, experienced employees in my work area think they are being ineffective | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors use the same terminology as used in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors praise employees when they use their training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Supervisors in my work area let new employees know that they are doing a good job when they use the skills learned in training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| If employees do the job their own way rather than the training way, other employees get angry with them | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

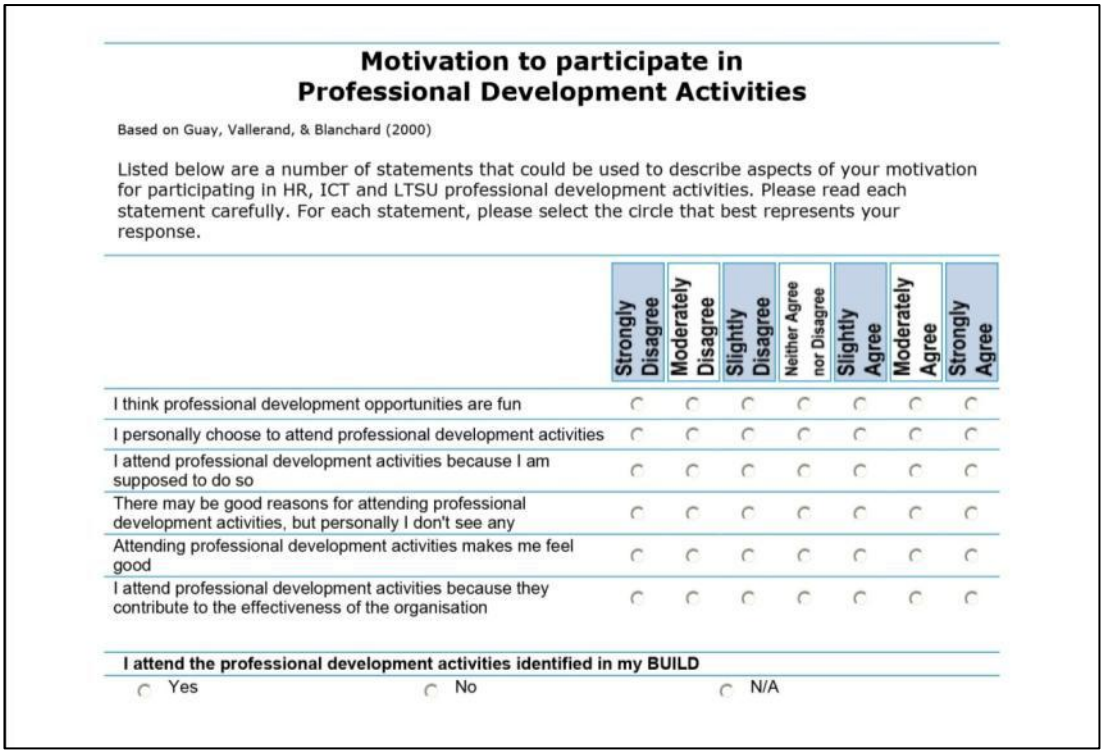


## Motivation to participate in Professional Development Activities

Based on Guay, Vallerand, & Blanchard (2000)

Listed below are a number of statements that could be used to describe aspects of your motivation for participating in HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I attend professional development activities because I don't have a choice | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I don't see the benefit of attending professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe it is important for me to attend professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I think professional development opportunities are interesting | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I attend professional development activities for my own good | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I'm not sure it is a good thing to attend professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I attend professional development activities because I feel that I have to | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Motivation to participate in Professional Development Activities

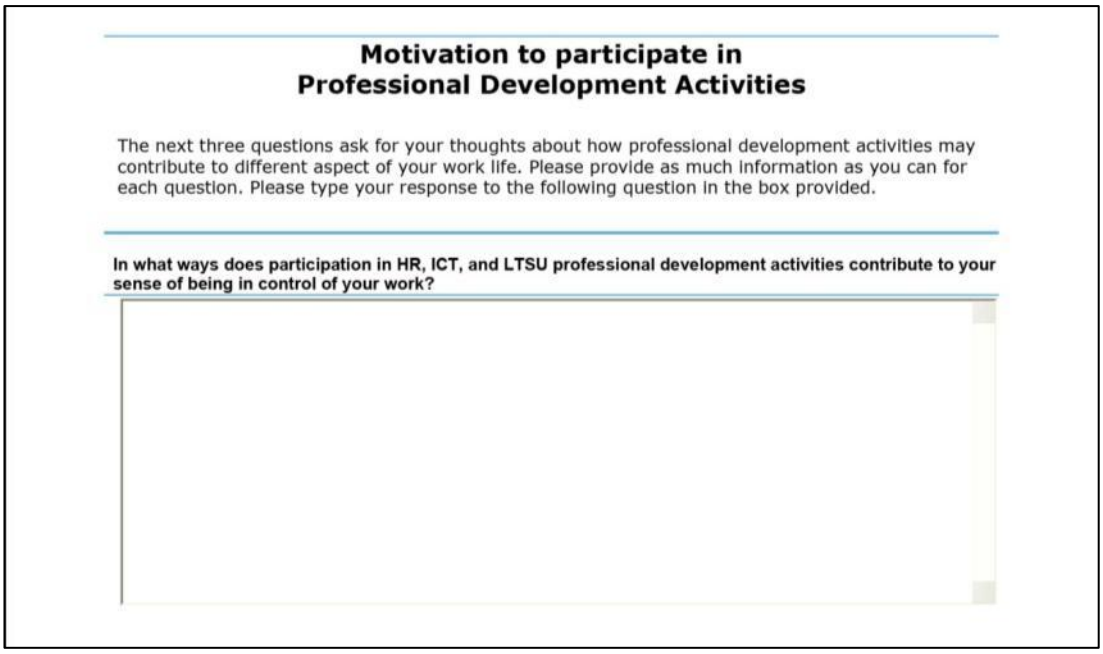
Based on Guay, Vallerand, & Blanchard (2000)

Listed below are a number of statements that could be used to describe aspects of your motivation for participating in HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I think professional development opportunities are fun | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I personally choose to attend professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I attend professional development activities because I am supposed to do so | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| There may be good reasons for attending professional development activities, but personally I don't see any | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Attending professional development activities makes me feel good | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I attend professional development activities because they contribute to the effectiveness of the organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**I attend the professional development activities identified in my BUILD**

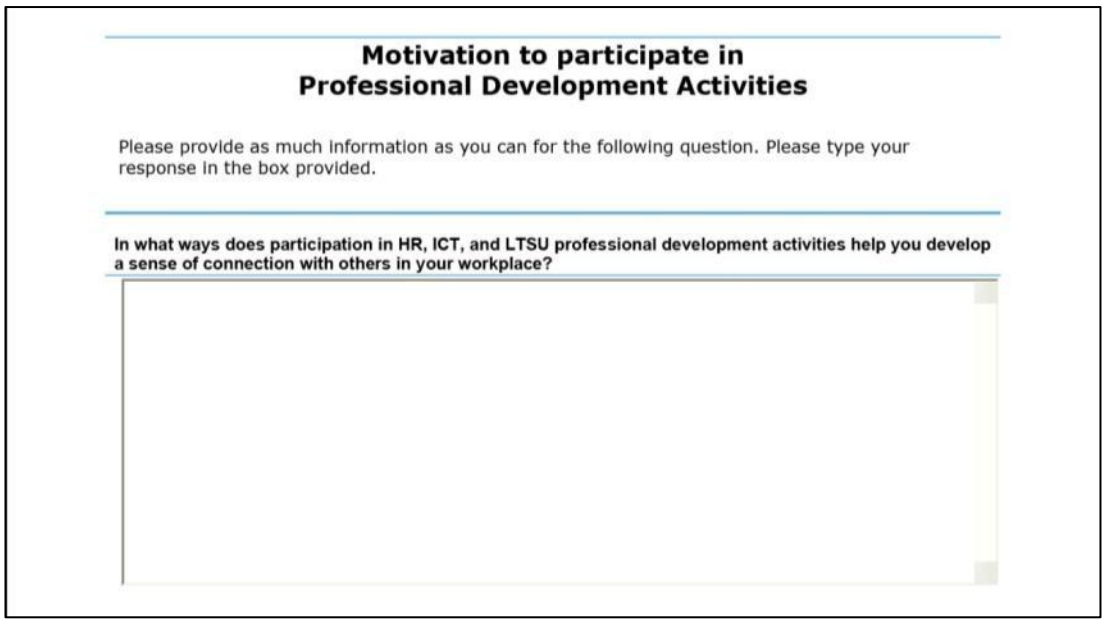
○ Yes ○ No ○ N/A



## Motivation to participate in Professional Development Activities

The next three questions ask for your thoughts about how professional development activities may contribute to different aspect of your work life. Please provide as much information as you can for each question. Please type your response to the following question in the box provided.

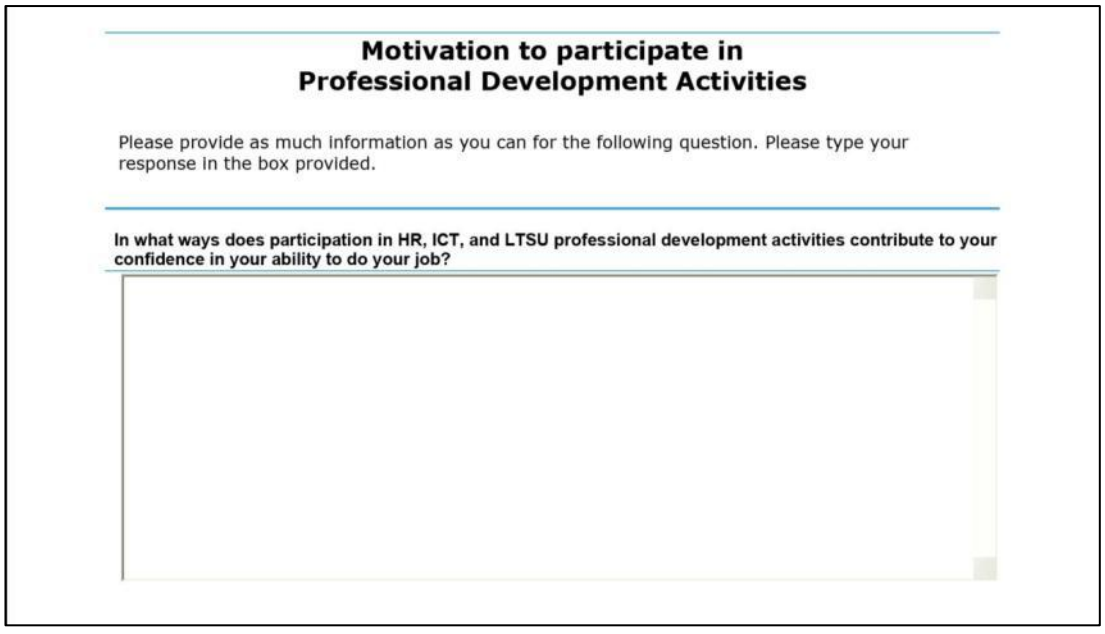
**In what ways does participation in HR, ICT, and LTSU professional development activities contribute to your sense of being in control of your work?**



**Motivation to participate in Professional Development Activities**

Please provide as much information as you can for the following question. Please type your response in the box provided.

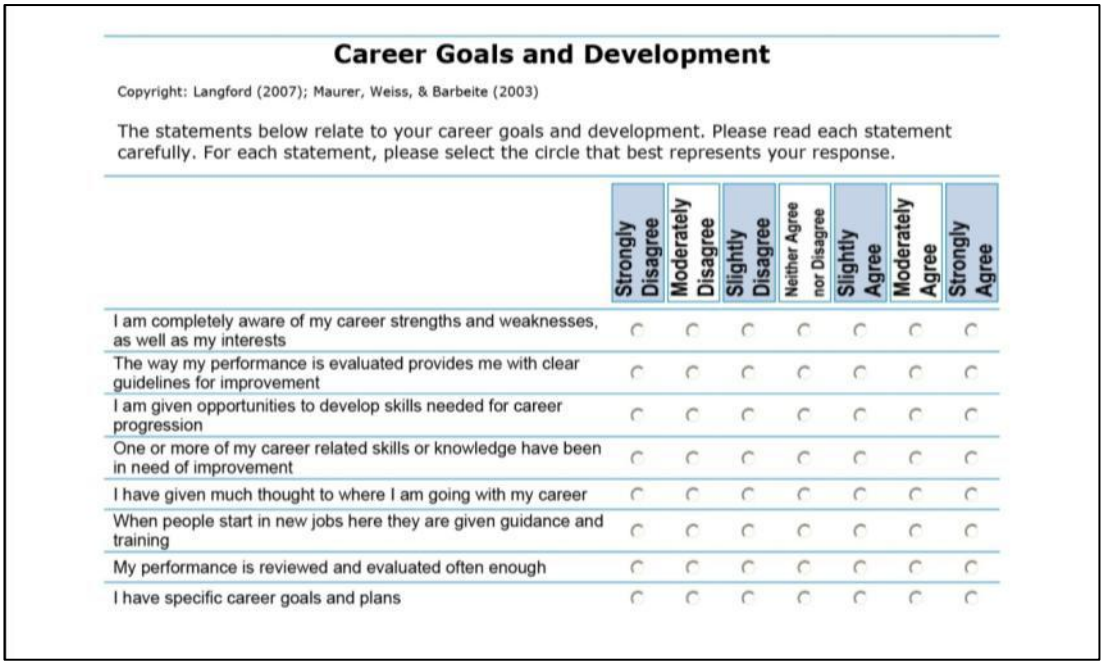
**In what ways does participation in HR, ICT, and LTSU professional development activities help you develop a sense of connection with others in your workplace?**



**Motivation to participate in Professional Development Activities**

Please provide as much information as you can for the following question. Please type your response in the box provided.

**In what ways does participation in HR, ICT, and LTSU professional development activities contribute to your confidence in your ability to do your job?**

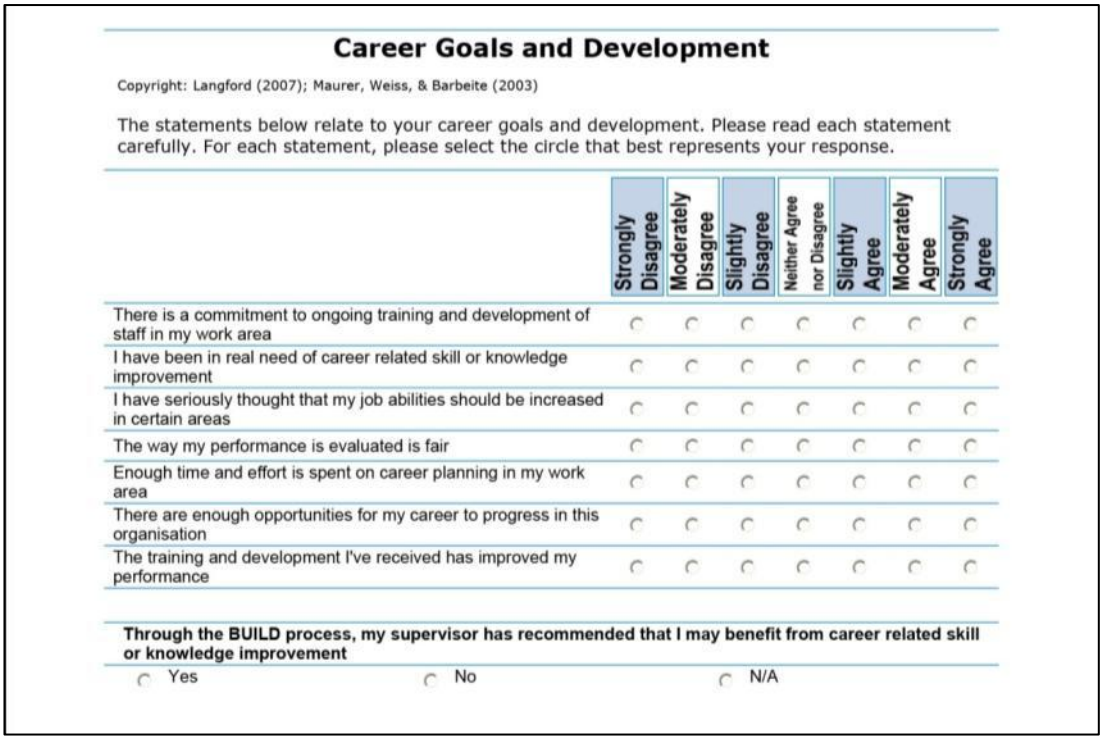


## Career Goals and Development



The statements below relate to your career goals and development. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I am completely aware of my career strengths and weaknesses, as well as my interests | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The way my performance is evaluated provides me with clear guidelines for improvement | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am given opportunities to develop skills needed for career progression | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| One or more of my career related skills or knowledge have been in need of improvement | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I have given much thought to where I am going with my career | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| When people start in new jobs here they are given guidance and training | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| My performance is reviewed and evaluated often enough | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I have specific career goals and plans | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Career Goals and Development

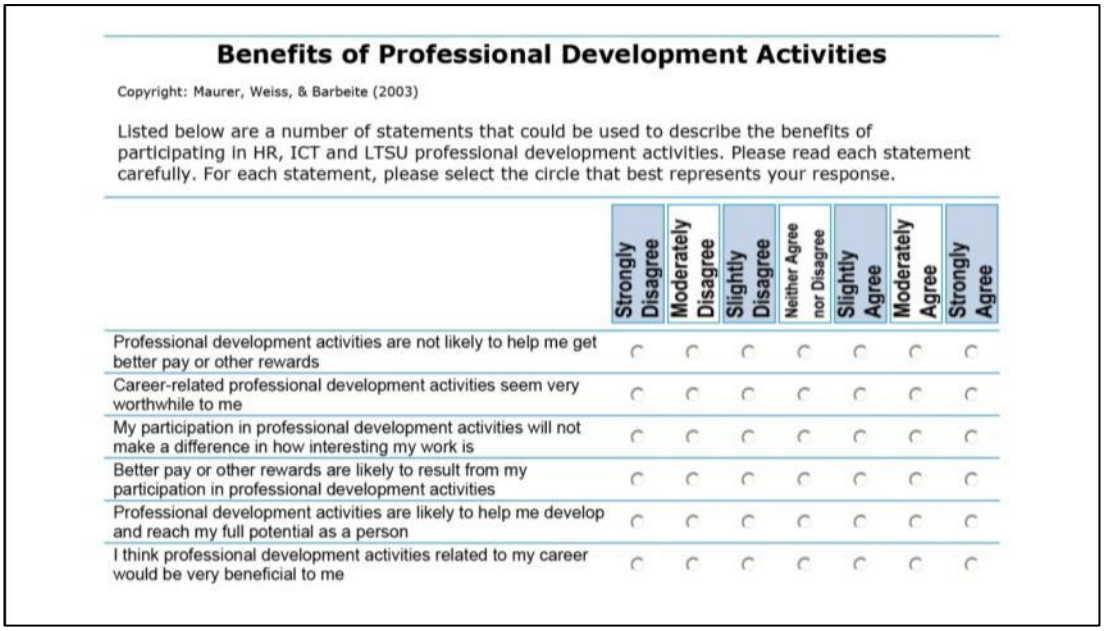


The statements below relate to your career goals and development. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| There is a commitment to ongoing training and development of staff in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I have been in real need of career related skill or knowledge improvement | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I have seriously thought that my job abilities should be increased in certain areas | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The way my performance is evaluated is fair | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Enough time and effort is spent on career planning in my work area | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| There are enough opportunities for my career to progress in this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The training and development I've received has improved my performance | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Through the BUILD process, my supervisor has recommended that I may benefit from career related skill or knowledge improvement**

○ Yes ○ No ○ N/A

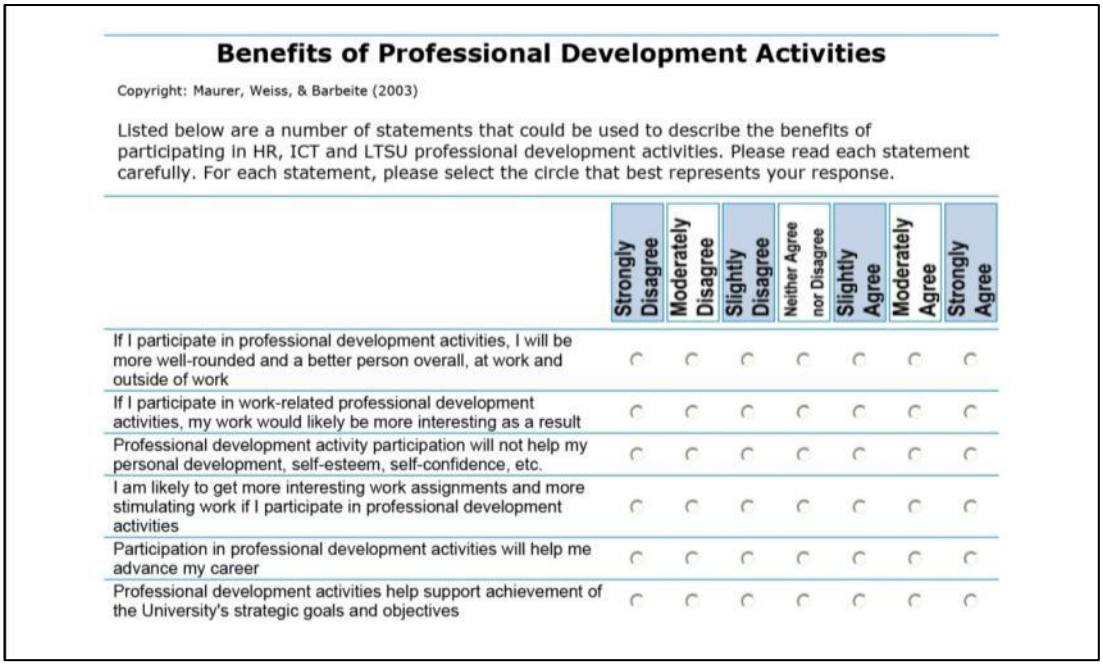


## Benefits of Professional Development Activities



Listed below are a number of statements that could be used to describe the benefits of participating in HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Professional development activities are not likely to help me get better pay or other rewards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Career-related professional development activities seem very worthwhile to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| My participation in professional development activities will not make a difference in how interesting my work is | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Better pay or other rewards are likely to result from my participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activities are likely to help me develop and reach my full potential as a person | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I think professional development activities related to my career would be very beneficial to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

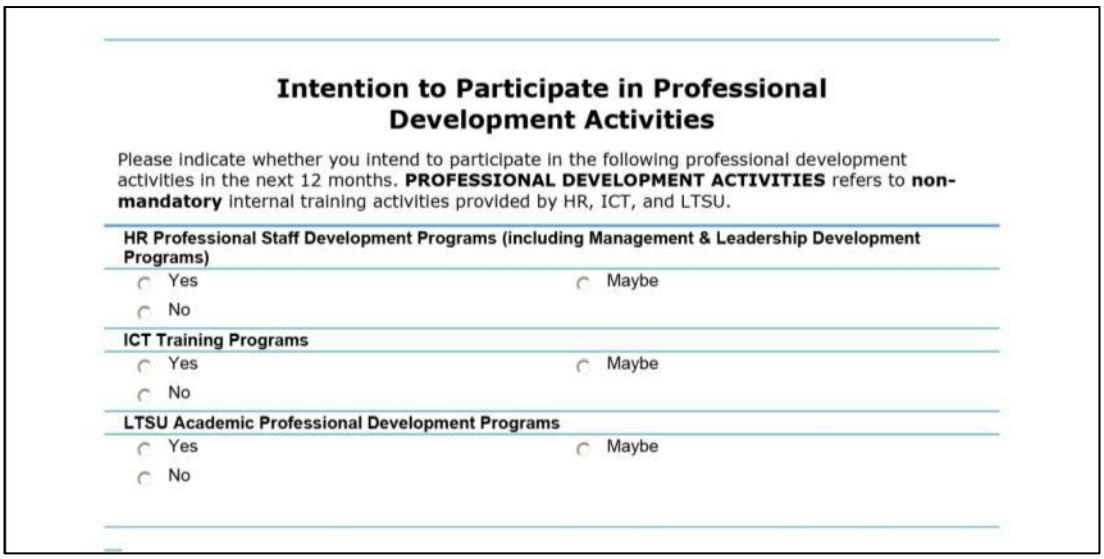


## Benefits of Professional Development Activities

Copyright: Maurer, Weiss, & Barbeite (2003)

Listed below are a number of statements that could be used to describe the benefits of participating in HR, ICT and LTSU professional development activities. Please read each statement carefully. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| If I participate in work-related professional development activities, my work would likely be more interesting as a result | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activity participation will not help my personal development, self-esteem, self-confidence, etc. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to get more interesting work assignments and more stimulating work if I participate in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Participation in professional development activities will help me advance my career | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activities help support achievement of the University's strategic goals and objectives | ○ | ○ | ○ | ○ | ○ | ○ | ○ |



## Intention to Participate in Professional Development Activities

Please indicate whether you intend to participate in the following professional development activities in the next 12 months. **PROFESSIONAL DEVELOPMENT ACTIVITIES** refers to **non-mandatory** internal training activities provided by HR, ICT, and LTSU.

**HR Professional Staff Development Programs (including Management & Leadership Development Programs)**

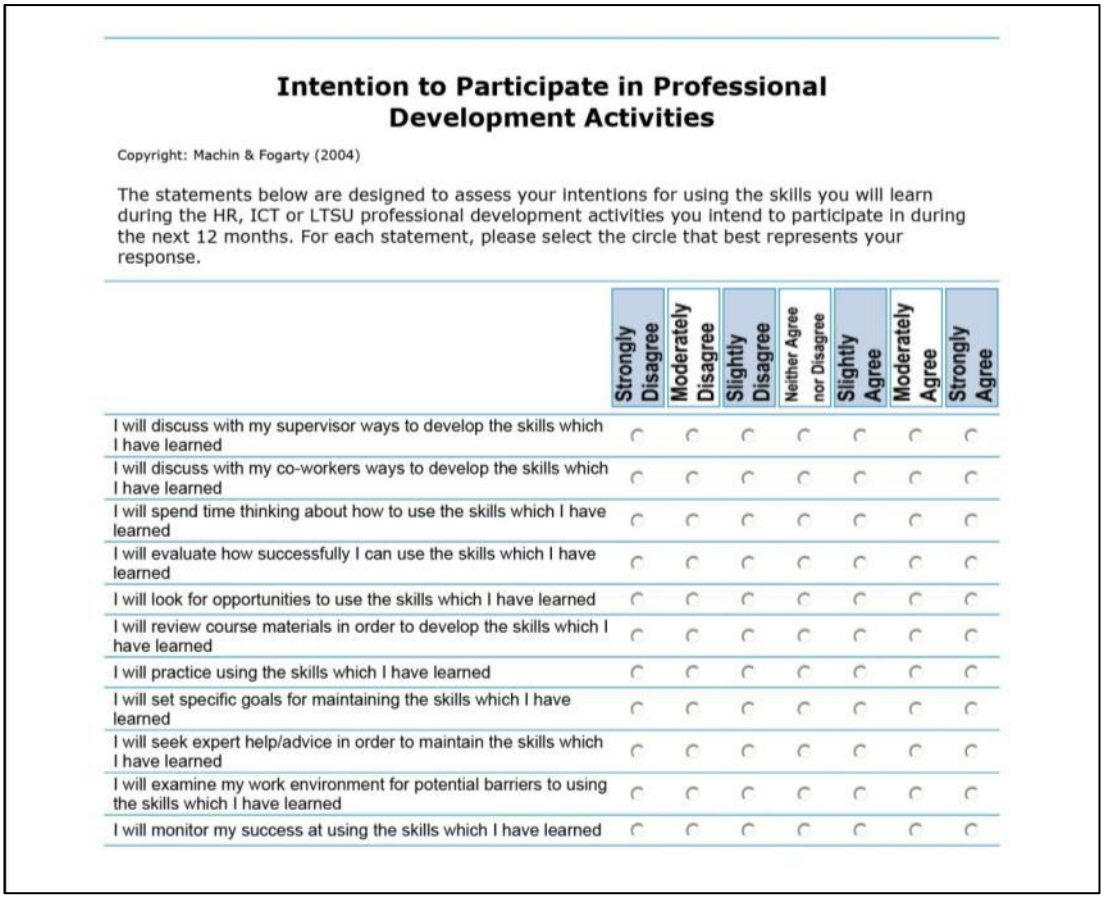
- Yes
- Maybe
- No

**ICT Training Programs**

- Yes
- Maybe
- No

**LTSU Academic Professional Development Programs**

- Yes
- Maybe
- No

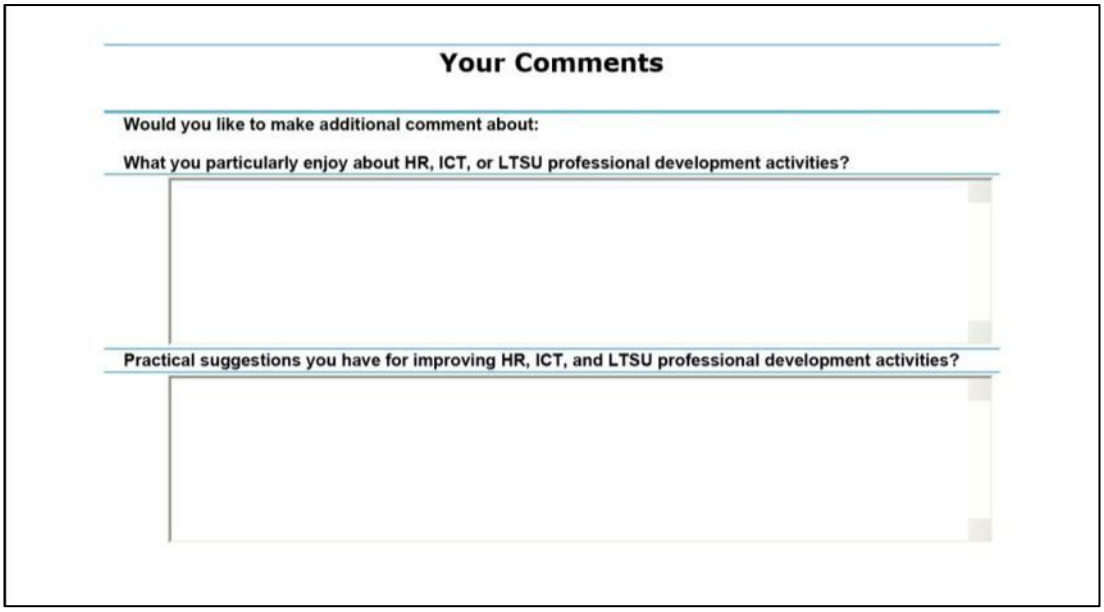


## Intention to Participate in Professional Development Activities

Copyright: Machin & Fogarty (2004)

The statements below are designed to assess your intentions for using the skills you will learn during the HR, ICT or LTSU professional development activities you intend to participate in during the next 12 months. For each statement, please select the circle that best represents your response.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I will discuss with my supervisor ways to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will discuss with my co-workers ways to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will spend time thinking about how to use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will evaluate how successfully I can use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will look for opportunities to use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will review course materials in order to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will practice using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will set specific goals for maintaining the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will seek expert help/advice in order to maintain the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will examine my work environment for potential barriers to using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will monitor my success at using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

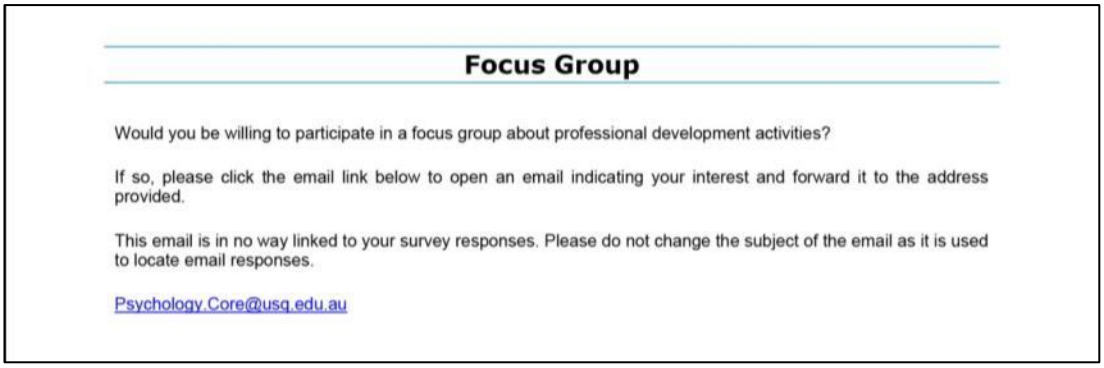


## Your Comments

**Would you like to make additional comment about:**

**What you particularly enjoy about HR, ICT, or LTSU professional development activities?**

**Practical suggestions you have for improving HR, ICT, and LTSU professional development activities?**



## Focus Group

Would you be willing to participate in a focus group about professional development activities?

If so, please click the email link below to open an email indicating your interest and forward it to the address provided.

This email is in no way linked to your survey responses. Please do not change the subject of the email as it is used to locate email responses.

Psychology.Core@usq.edu.au

# Appendix E

## Study 1 Variables and Items

### Autonomous Motivation

***Intrinsic Motivation*** (Guay, Vallerand, & Blanchard, 2000)

I think professional development opportunities are interesting.

I think professional development opportunities are fun.

Attending professional development activities make me feel good.

***Identified Regulation*** (Guay et al., 2000)

I attend professional development activities for my own good.

I personally choose to attend professional development activities.

I believe it is important for me to attend professional development activities.

### Intrinsic Benefits and Extrinsic Benefits

***Intrinsic Benefits*** (Maurer, Weiss, & Barbeite, 2003)

Career-related professional development activities seem very worthwhile to me.

My participation in professional development activities will not make a difference in how interesting my work is.*

Professional development activities are likely to help me develop and reach my full potential as a person.

I think professional development activities related to my career would be very beneficial to me.

If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work.

If I participate in work-related professional development activities, my work would likely be more interesting as a result.

Professional development activity participation will not help my personal development, self-esteem, self-confidence, etc.*

I am likely to get more interesting work assignments and more stimulating work if I participate in professional development activities.

***Extrinsic Benefits*** (Maurer et al., 2003)

Professional development activities are not likely to help me get better pay or other rewards.*

Better pay or other rewards are likely to result from my participation in professional development activities.

Participation in professional development activities will help me advance my career.

**Transfer Implementation Intentions** (Machin & Fogarty, 2004)

I will discuss with my supervisor ways to develop the skills which I have learned.

I will discuss with my co-workers ways to develop the skills which I have learned.

I will spend time thinking about how to use the skills which I have learned.

I will evaluate how successfully I can use the skills which I have learned.

I will look for opportunities to use the skills which I have learned.

I will review course materials in order to develop the skills which I have learned.

I will practice using the skills which I have learned.

I will set specific goals for maintaining the skills which I have learned.

I will seek expert help/advice in order to maintain the skills which I have learned.

I will examine my work environment for potential barriers to using the skills which I have learned.

I will monitor my success at using the skills which I have learned.

**Positive Work Environment**

***Goal Cues*** (Thayer & Teachout, 1995)

Supervisors set performance goals for new employees consistent with their training.

Supervisors set goals for new employees that encourage them to use their training.

Supervisors expect employees to use their training on the job.

Supervisors help employees set realistic goals for performing their work as a result of their training.

Employees in my work area expect new employees to do the job the way it was done in training.

Supervisors meet with employees to set goals following training.

***Social Cues*** (Thayer & Teachout, 1995)

Other employees in my work area have the technical knowledge to help new employees use what they learned in training.

Supervisors give employees the chance to try out their training on the job immediately.

Supervisors use the same terminology as used in training.

When employees return from training, supervisors encourage them to share what they've learned with other employees.

Supervisors know what skills employees are learning in training.

Employees can count on getting answers from supervisors to questions about the use of training on the job.

Supervisors meet regularly with employees to work on problems they may have in trying to use their training.

Employees in my work area help each other resolve difficult problems relating to the use of training on the job.

When supervisors tell employees how to do something, they do it the same way it was done in training.

The employees in my work area do the job using the skills gained in training.

***Task Cues*** (Thayer & Teachout, 1995)

Work in my work area is designed so that employees can do the work the way they were trained.

Job aids are available on the job to support what employees learned in training.

The equipment in my work area allows employees to use the skills gained in training.

The materials needed by employees to use what they learned in training are readily available.

Employees could do their jobs better if there weren't so many interruptions.*

There is never enough time to do the job using the skills learned in training.*

Supplies needed to do the job using skills learned in training are usually available.

Tools/equipment needed to apply the skills learned in training are usually available.

The equipment here is the same as we are trained on in training.

When employees return from training, there is usually a pile of work to catch up on before they can try to use what they learned in training.*

***Positive Reinforcement*** (Thayer & Teachout, 1995)

Supervisors in my work area let new employees know that they are doing a good job when they use the skills learned in training.

Supervisors appreciate employees who do their jobs using skills learned in training.

Employees who use their training are given preference for career advancement in my work area.

Fellow employees appreciate employees who do their jobs using the skills gained in training.

Supervisors treat employees better when they use their training.

Doing the job with skills learned in training helps employees in their careers with this organisation.

When employees use their training, jobs are easier.

Employees' jobs are more interesting because of their training.

Supervisors commend employees publicly when they return from training.

Supervisors praise employees when they use their training.

**Organisational Support**

***Learning and Development*** (Langford, 2007)

When people start in new jobs here they are given guidance and training.

There is a commitment to ongoing training and development of staff in my work area.

The training and development I've received has improved my performance.

***Performance Appraisal*** (Langford, 2007)

My performance is reviewed and evaluated often enough.

The way my performance is evaluated is fair.

The way my performance is evaluated provides me with clear guidelines for improvement.

***Career Opportunities*** (Langford, 2007)

Enough time and effort is spent on career planning in my work area.

I am given opportunities to develop skills needed for career progression.

There are enough opportunities for my career to progress in this organisation.

*Note*. * Reverse-scored item.

## Appendix F

## SPSS Power Syntax

Syntax from Schumacker and Lomax (2010, p. 107) used to calculate power to test the not-close hypothesis ($H_o$, RMSEA $\leq$ .05) related to the Root Mean Square Error of Approximation (MacCallum, Browne, & Sugawara (1996) in SPSS. Appropriate *n* and *df* were added for each sample size and model.

**SPSS syntax–RMSEA and power**

```
DATA LIST FREE / obs .
BEGIN DATA.
1
END DATA .
compute n =  .
compute df = .
compute alpha = .05 .
compute rmseaHo = .05 .
compute rmseaHa = .08 .
compute ncpHo = (n-1)*df*rmseaHo*rmseaHo .
compute ncpHa = (n-1)*df*rmseaHa*rmseaHa .
compute chicrit = IDF.CHISQ (1-alpha, df) .
do if (rmseaHo < rmseaHa) .
compute power = 1 - NCDF.CHISQ (chicrit, df, ncpHa) .
else if (rmseaHo > rmseaHa) .
compute power = NCDF.CHISQ (chicrit, df, ncpHa) .
end if .
formats chicrit ncpHo ncpHa power (f8.5) .
List .
```

## Appendix G

### Study 1 Descriptive Statistics for Employee Groups

The descriptive statistics, including mean scores and standard deviations, range of scores, internal consistency and skew and kurtosis values for academic employees are shown in Table G.1. The descriptive statistics for general employees are shown in Table G.2. Table G.3 shows the correlations among the study variables for academic employees (above the diagonal) and general employees (below the diagonal).

Table G.1

*Descriptive Statistics of Study 1 Variables for Academic Employees*

| Variable | No. of Items | M | SD | Range[a] | α | Skew | Kurt |
|---|---|---|---|---|---|---|---|
| Goal Cues | 5 | 4.21 | 1.10 | 1.0-700 | .82 | -0.32 | 0.34 |
| Social Cues | 10 | 4.30 | 0.90 | 1.0-7.0 | .84 | 0.30 | 0.23 |
| Task Cues | 6 | 4.43 | 1.18 | 1.0-7.0 | .88 | -0.35 | 0 .00 |
| Positive Reinforcement | 7 | 4.53 | 1.04 | 1.0-7.0 | .84 | -0.37 | 0.19 |
| Learning & Development | 3 | 4.66 | 1.27 | 1.0-7.0 | .72 | -0.49 | -0.22 |
| Performance Appraisal | 3 | 4.66 | 1.40 | 1.0-7.0 | .72 | -0.54 | -0.15 |
| Career Opportunities | 3 | 4.17 | 1.48 | 1.0-7.0 | .79 | -0.35 | -0.71 |
| Intrinsic Motivation | 3 | 4.88 | 1.21 | 1.0-7.0 | .84 | -0.78 | 0.88 |
| Identified Regulation | 3 | 5.85 | 1.08 | 2.0-7.0 | .83 | -0.92 | 0.55 |
| Intrinsic Benefits | 6 | 4.87 | 1.18 | 1.3-7.0 | .89 | -0.62 | 0.60 |
| Extrinsic Benefits | 4 | 3.62 | 1.31 | 1.0-6.8 | .80 | -0.09 | -0.49 |
| Implementation Intentions | 11 | 5.06 | 0.96 | 1.0-6.9 | .93 | -0.45 | 1.36 |

*Note*. $n$ = 127. [a] Potential range = 1.0-7.0. Kurt = Kurtosis.

Table G.2

*Descriptive Statistics of Study 1 Variables for General Employees*

| Variable | No. of Items | M | SD | Range[a] | α | Skew | Kurt |
|---|---|---|---|---|---|---|---|
| Goal Cues | 5 | 4.70 | 1.14 | 1.0-7.0 | .83 | -0.43 | 0.35 |
| Social Cues | 10 | 4.86 | 0.91 | 1.0-7.0 | .84 | -0.48 | 1.08 |
| Task Cues | 6 | 4.92 | 1.09 | 1.0-7.0 | .88 | -0.33 | 0.23 |
| Positive Reinforcement | 7 | 5.05 | 0.94 | 1.0-7.0 | .82 | -0.50 | 1.19 |
| Learning & Development | 3 | 5.25 | 1.27 | 1.0-7.0 | .73 | -1.03 | 1.23 |
| Performance Appraisal | 3 | 5.00 | 1.44 | 1.0-7.0 | .82 | -0.76 | 0.11 |
| Career Opportunities | 3 | 4.46 | 1.53 | 1.0-7.0 | .80 | -0.34 | -0.52 |
| Intrinsic Motivation | 3 | 5.43 | 1.12 | 1.0-7.0 | .84 | -0.62 | 0.27 |
| Identified Regulation | 3 | 5.97 | 1.07 | 2.0-7.0 | .83 | -1.14 | 1.04 |
| Intrinsic Benefits | 6 | 5.28 | 1.05 | 1.0-7.0 | .83 | -0.55 | 0.62 |
| Extrinsic Benefits | 4 | 3.99 | 1.38 | 1.0-7.0 | .81 | -0.03 | -0.21 |
| Implementation Intentions | 11 | 5.27 | 0.92 | 3.0-7.0 | .93 | 0.07 | -0.65 |

*Note*. $n$ = 312. [a] Potential range = 1.00-7.00. Kurt = Kurtosis.

Table G.3

*Summary of Inter-correlations for Study One as a function of Occupational Group*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Goal Cues | - | .85 | .53 | .77 | .75 | .65 | .65 | .29 | .22 | .32 | .53 | .40 |
| 2.Social Cues | .84 | - | .59 | .80 | .71 | .57 | .60 | .28 | .18* | .35 | .49 | .44 |
| 3. Task Cues | .59 | .59 | - | .64 | .63 | .47 | .53 | .31 | .16[a] | .35 | .45 | .29 |
| 4. Positive Reinforcement | .71 | .76 | .61 | - | .75 | .57 | .58 | .44 | .33 | .49 | .60 | .47 |
| 5. Learning & Development | .69 | .71 | .56 | .64 | - | .70 | .68 | .45 | .37 | .51 | .50 | .49 |
| 6. Performance Appraisal | .68 | .62 | .44 | .49 | .70 | - | .64 | .31 | .26 | .27 | .40 | .34 |
| 7.Career Opportunities | .62 | .60 | .44 | .55 | .70 | .70 | - | .23 | .16 | .27 | .49 | .41 |
| 8. Intrinsic Motivation | .25 | .24 | .28 | .44 | .32 | .19 | .23 | - | .67 | .61 | .35 | .40 |
| 9. Identified Regulation | .23 | .21 | .23 | .38 | .31 | .14* | .19 | .75 | - | .54 | .25 | .40 |
| 10. Intrinsic Benefits | .30 | .31 | .25 | .48 | .36 | .20 | .28 | .60 | .52 | - | .56 | .51 |
| 11. Extrinsic Benefits | .34 | .33 | .28 | .44 | .35 | .26 | .47 | .40 | .30 | .52 | - | .34 |
| 12. Implementation Intentions | .38 | .40 | .35 | .49 | .41 | .34 | .35 | .53 | .48 | .56 | .35 | - |

*Note*. Inter-correlations for Academic employee participants ($n$ = 127) are presented above the diagonal, and inter-correlations for General employee participants ($n$ = 312) are presented below the diagonal. All correlations significant at the $p$ =.01 level (2-tailed), except where * $p < .05$ and [a] correlation is non-significant at $p$ = .05 level.

## Appendix H

### Study 1 Multi-group Baseline Results for Employee Groups

Prior to the testing for equivalence of the structural parameters across the employee groups, acceptable fit of the baseline model to the academic and general employee data was established in separate analyses (Byrne, 2010). Identical parameters were specified in the models. The model fit the academic employee data, with $\chi^2$ (3) = 2.71, $p$ = .44 (CFI = 1.00; RMSEA = .00, 90% CI [.00, .12]; SRMR = .02). With the fit of the model otherwise acceptable, the imprecision in the RMSEA estimate (CI) is likely to be associated with the smaller academic sample size (Hu & Bentler, 1998).

The model also fit the general employee data, with $\chi^2$ (3) = 3.51, $p$ = .32 (CFI = .99; RMSEA = .02, 90% CI [.00, .08]; SRMR = .01). The academic and general employee unconstrained baseline model with unstandardised parameter estimates is shown in Figure H.1. Unstandardised standard errors, standardised path coefficients and squared multiple correlations for each of the groups are shown in Table H.1.

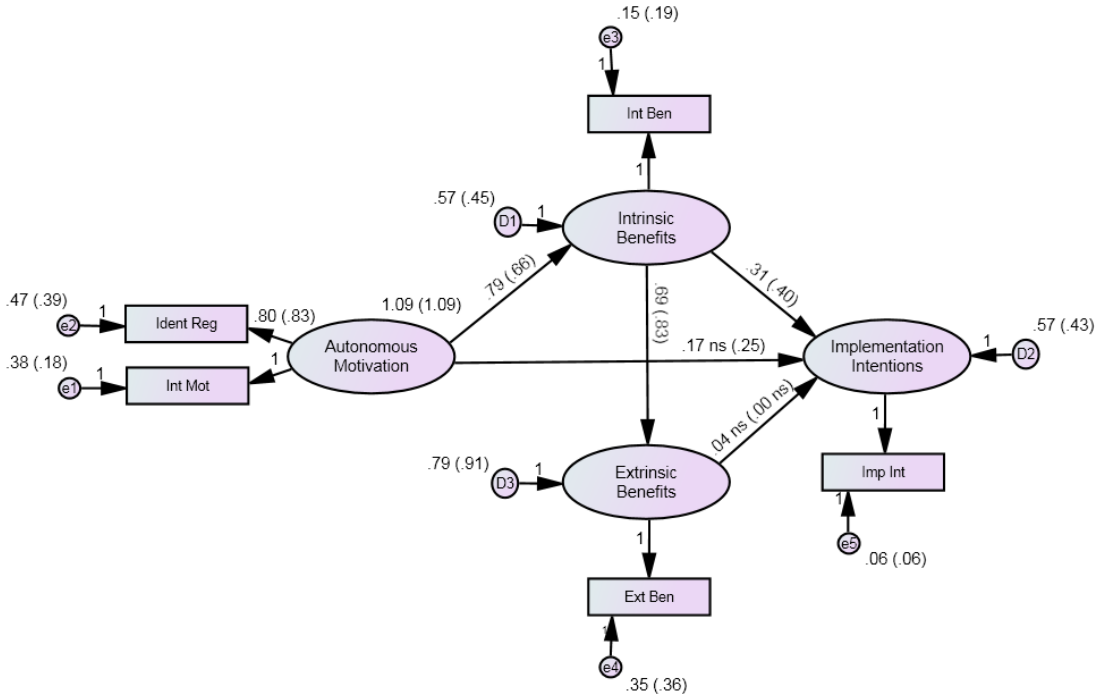



*Figure H.1*. Unstandardised coefficients for academic and general employee unconstrained baseline core Proactive Motivation Processes models. Academic estimates are shown outside brackets. General employee estimates are shown inside brackets.

The unstandardised parameter estimates were statistically significant from zero for both the academic and general employee groups. However, consistent with the overall sample results, the unstandardised path coefficient for the path between Extrinsic Benefits and Implementation Intentions was non-significant for both academic (*B* = .04 [.10], *p* =.66) and general (*B* =- .01 [.05], *p* = .93) employees. For academic employees the unstandardised path coefficient for the path between Autonomous Motivation and Implementation Intentions was also non-significant (*B* = .17 [.13], *p* =.19). With relatively large standard errors for this group the non-significance of this parameter was potentially associated with the smaller sample size for this group (Kline, 2011).

Table H.1

*Path Coefficients and Squared Multiple Correlations for Baseline Model across Employee Group*

| | Structural coefficients | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Academic | | | | General | | | |
| Variable | Unstd | SE | Std | $R^2$ | Unstd | SE | Std | $R^2$ |
| *Intrinsic Benefits*[a] | | | | .54 | | | | .51 |
| Aut Motivation | .79*** | .11 | .74 | | .66*** | .06 | .71 | |
| *Extrinsic Benefits*[a] | | | | .43 | | | | .41 |
| Intrinsic Benefits | .69*** | .09 | .66 | | .87*** | .08 | .64 | |
| *Implement Intentions*[a] | | | | .33 | | | | .45 |
| Aut Motivation | .17 | .13 | .20 | | .25*** | .07 | .29 | |
| Intrinsic Benefits | .31* | .08 | .38 | | .40*** | .10 | .43 | |
| Extrinsic Benefits | .04 | .10 | .06 | | -.01 | .05 | -.01 | |

*Note*. Unstd = Unstandardised. SE = standard error. Std = standardised. $R^2$ = squared multiple correlation. [a] *Italicised* variable = endogenous criterion variable.

*** $p$ <.001. * $p$ <.05

# Appendix I

## Study 1 Results for the Organisational Support Antecedent Model

The standardised results for the Study 1 model, with the omitted Organisational Support variable as the organisational context antecedent, are shown in Figure I1. The *AMOS* 19.0.0 (Arbuckle, 2010) output, including model fit and unstandardised regression coefficients is shown below the figure.

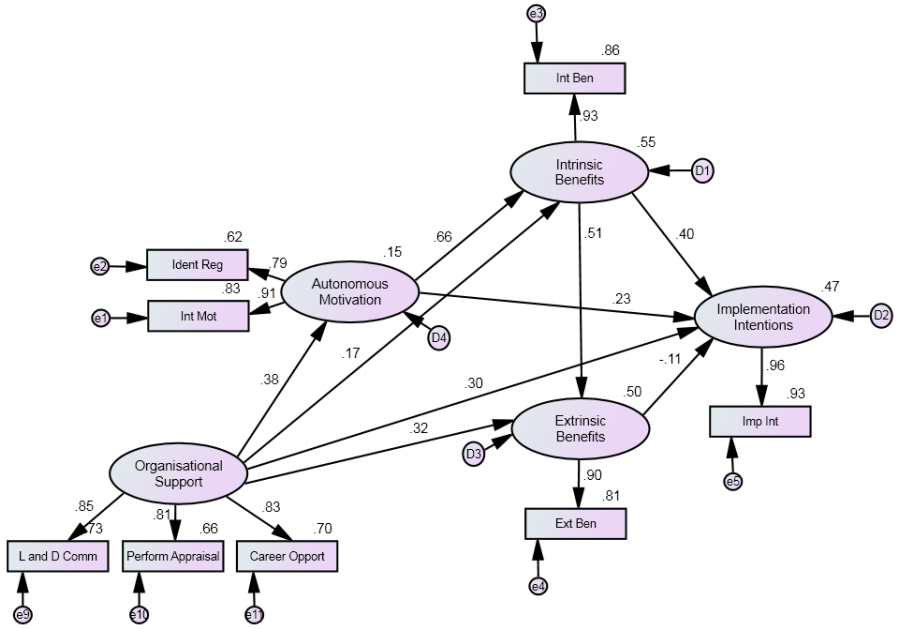



*Figure I.1*. Standardised results for Proactive Motivation and Goal Processes Antecedent model with Organisational Support as organisation contextual influence.

**CMIN**

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 22 | 79.757 | 14 | .000 | 5.697 |
| Saturated model | 36 | .000 | 0 | | |
| Independence model | 8 | 1774.907 | 28 | .000 | 63.390 |

**Baseline Comparisons**

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .955 | .910 | .963 | .925 | .962 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .104 | .082 | .126 | .000 |
| Independence model | .377 | .363 | .392 | .000 |

**Regression Weights: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Aut_Motivation | <- | Org_Support | .370 | .052 | 7.153 | *** | par_12 |
| Int Benefits | <- | Aut_Motivation | .630 | .052 | 12.218 | *** | par_2 |
| Int Benefits | <- | Org_Support | .157 | .044 | 3.552 | *** | par_10 |
| Ext Benefits | <- | Int Benefits | .610 | .062 | 9.847 | *** | par_3 |
| Ext Benefits | <- | Org_Support | .360 | .058 | 6.167 | *** | par_9 |
| Implem Intent | <- | Aut_Motivation | .190 | .058 | 3.262 | .001 | par_4 |
| Implem Intent | <- | Int Benefits | .350 | .072 | 4.860 | *** | par_5 |
| Implem Intent | <- | Ext Benefits | -.083 | .050 | -1.654 | .098 | par_8 |
| Implem Intent | <- | Org_Support | .241 | .043 | 5.552 | *** | par_11 |
| IntMotA | <- | Aut_Motivation | 1.000 | | | | |
| IdentRegA | <- | Aut_Motivation | .786 | .048 | 16.532 | *** | par_1 |
| ExtBen4 | <- | Ext Benefits | 1.000 | | | | |
| IntDevA | <- | Implem Intent | 1.000 | | | | |
| IntBen6 | <- | Int Benefits | 1.000 | | | | |
| CarOppA | <- | Org_Support | 1.150 | .059 | 19.604 | *** | par_6 |
| LandDA | <- | Org_Support | 1.000 | | | | |
| PerAppA | <- | Org_Support | 1.051 | .055 | 19.002 | *** | par_7 |

## Appendix J

## Study 1 Focus Group Consent Form

# HR, ICT, and LTSU Professional Development

***University of Southern Queensland***

### Focus Group Consent Form

**Purpose of the Focus Group:**

This Focus Group asks you to tell us how you feel about participation in non-mandatory internal training activities provided by HR, ICT, and LTSU, and how effectively you are able to use the knowledge or skills you learn in these activities when back in your work area. The results will benefit staff by providing information that will lead to training related work environment improvement.

**Informed Consent:**

I agree to participate in a focus group that is investigating my participation in non-mandatory Professional Development (PD) activities conducted at USQ. I understand that my participation is entirely voluntary: I can leave the focus group at any time and if I do there this will be no undesirable consequences.

The following points have been explained to me:

1. The purpose of this research is to ascertain how effectively I am able to use the knowledge or skills I learned in non-mandatory PD activities conducted USQ. I understand I will be asked questions about my participation in PD and factors I find important in that participation.
2. The researcher does not foresee any risks to me for participating in this study, nor does he expect that I will experience any discomfort or stress.
3. All of the data collected will remain strictly confidential. Only people associated with the study will see my responses. This consent form will be stored separately and my responses will not be associated with my name in any way. My name will be converted to a code number when the researcher stores the data.
4. The researcher will answer any questions I have about the research either now or during the course of the research. If I have any other questions or concerns regarding the implementation of the project I can contact The Secretary, Human Research Ethics Committee USQ or telephone (07) 4631 2956.
5. Upon completion of my participation I will be able to access all relevant information pertaining to my involvement in the study upon a request to the researcher.

| | | |
|---|---|---|
| _____<br>Participant's Printed Name | _____<br>Participant's Signature | _____<br>Date |
| **Researchers name and contact details:**<br>Michael Sankey<br>Learning and Teaching Support Unit,<br>University of Southern Queensland, Toowoomba, Queensland, Australia, 4350<br>Ph +61 7 46312293 (bh)<br>Email: sankey@usq.edu.au | | |

## Appendix K

## Study 1 Focus Group Discussion Guide Questions

### Indicative focus group questions

- Is there any real need for you to attend PD?
- Does anybody notice or acknowledge that you have attended PD?
- To what level do you feel there are opportunities for career advancement as a result of you attending PD activities?
- To what extent do you feel your job becomes easier once you have attended PD activates?
- Do you feel there are sufficient topics covered in our current PD offerings?
- What benefit would you like to get out of PD that you are currently not getting?
- Did you deal with PD in your last BUILD?
    - If not, how do you identify what PD you need to do?
    - And what support do you get for this?
    - If so, does your supervisor follow up with you on this?
- How much support do you get in your work environment to attend PD activities?
- To what extent do you see that you improved your performance in your job due to attending PD?
- Do you self-identify areas that you need to improve in?
    - If yes, what do you do about this?
    - If no, does anybody point you toward what you could do?
- Perceived need for PD – to what extent do you self-identify which PD events you attend?
- Anything you would like to add – things you would like to see included in the PD program?

# Appendix L

## Demographic Characteristics of Study 2 Sample

($N$ = 205)

**Gender**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Female | 112 | 54.6 | 54.6 | 54.6 |
| | Male | 93 | 45.4 | 45.4 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 21 - 25 | 8 | 3.9 | 3.9 | 3.9 |
| | 26 - 30 | 10 | 4.9 | 4.9 | 8.8 |
| | 31 - 35 | 20 | 9.8 | 9.8 | 18.5 |
| | 36 - 40 | 24 | 11.7 | 11.7 | 30.2 |
| | 41 - 45 | 35 | 17.1 | 17.1 | 47.3 |
| | 46 - 50 | 36 | 17.6 | 17.6 | 64.9 |
| | 51 - 55 | 38 | 18.5 | 18.5 | 83.4 |
| | 56 - 60 | 25 | 12.2 | 12.2 | 95.6 |
| | over 60 | 9 | 4.4 | 4.4 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Employment Status**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Permanent full-time | 165 | 80.5 | 80.5 | 80.5 |
| | Fixed term full-time | 17 | 8.3 | 8.3 | 88.8 |
| | Permanent part-time | 8 | 3.9 | 3.9 | 92.7 |
| | Fixed term part-time | 7 | 3.4 | 3.4 | 96.1 |
| | Casual | 6 | 2.9 | 2.9 | 99.0 |
| | Other | 2 | 1.0 | 1.0 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Employees in organisation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 10 or less | 4 | 2.0 | 2.0 | 2.0 |
| | 11 - 50 | 13 | 6.3 | 6.3 | 8.3 |
| | 51 to 100 | 5 | 2.4 | 2.4 | 10.7 |
| | 101 to 250 | 7 | 3.4 | 3.4 | 14.1 |
| | 251 - 500 | 18 | 8.8 | 8.8 | 22.9 |
| | 501 - 750 | 12 | 5.9 | 5.9 | 28.8 |
| | 751 - less than 1,000 | 11 | 5.4 | 5.4 | 34.1 |
| | 1,000 or more | 135 | 65.9 | 65.9 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Time in organisation**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 1 year | 24 | 11.7 | 11.7 | 11.7 |
| | 1 to 2 years | 23 | 11.2 | 11.2 | 22.9 |
| | 3 to 5 years | 41 | 20.0 | 20.0 | 42.9 |
| | 6 to 10 years | 37 | 18.0 | 18.0 | 61.0 |
| | 11 to 15 years | 24 | 11.7 | 11.7 | 72.7 |
| | 16 to 20 years | 23 | 11.2 | 11.2 | 83.9 |
| | More than 20 years | 33 | 16.1 | 16.1 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Time in current role**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Less than 1 year | 51 | 24.9 | 24.9 | 24.9 |
| | 1 to 2 years | 37 | 18.0 | 18.0 | 42.9 |
| | 3 to 5 years | 60 | 29.3 | 29.3 | 72.2 |
| | 6 to 10 years | 30 | 14.6 | 14.6 | 86.8 |
| | 11 to 15 years | 10 | 4.9 | 4.9 | 91.7 |
| | 16 to 20 years | 5 | 2.4 | 2.4 | 94.1 |
| | More than 20 years | 12 | 5.9 | 5.9 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Industry Group**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Admin and Support Services | 2 | 1.0 | 1.0 | 1.0 |
| | Agriculture, Forestry and Fishing | 1 | .5 | .5 | 1.5 |
| | Arts and Recreation Services | 1 | .5 | .5 | 2.0 |
| | Construction | 2 | 1.0 | 1.0 | 3.0 |
| | Education and Training | 131 | 63.9 | 65.2 | 68.2 |
| | Elec, Gas, Water and Waste Services | 4 | 2.0 | 2.0 | 70.1 |
| | Finance and Insur Services | 9 | 4.4 | 4.5 | 74.6 |
| | Health Care and Social Assistance | 12 | 5.9 | 6.0 | 80.6 |
| | Info Media and Telecom | 2 | 1.0 | 1.0 | 81.6 |
| | Manufacturing | 5 | 2.4 | 2.5 | 84.1 |
| | Mining | 3 | 1.5 | 1.5 | 85.6 |
| | Prof, Scientific and Technical Services | 5 | 2.4 | 2.5 | 88.1 |
| | Public Admin and Safety | 4 | 2.0 | 2.0 | 90.0 |
| | Rental, Hiring and Real Estate Services | 1 | .5 | .5 | 90.5 |
| | Retail Trade | 1 | .5 | .5 | 91.0 |
| | Transport, Postal and Warehousing | 1 | .5 | .5 | 91.5 |
| | Wholesale Trade | 1 | .5 | .5 | 92.0 |
| | Other Services | 1 | .5 | .5 | 92.5 |
| | Other | 15 | 7.3 | 7.5 | 100.0 |
| | Total | 201 | 98.0 | 100.0 | |
| Missing | System | 4 | 2.0 | | |
| Total | | 205 | 100.0 | | |

**Plan to attend in next 12 mths**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes | 170 | 82.9 | 82.9 | 82.9 |
| | No | 8 | 3.9 | 3.9 | 86.8 |
| | Not sure | 27 | 13.2 | 13.2 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Last attended PD**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | In the last 12 months | 169 | 82.4 | 82.4 | 82.4 |
| | 1 - 2 years ago | 15 | 7.3 | 7.3 | 89.8 |
| | 2 - 3 years ago | 7 | 3.4 | 3.4 | 93.2 |
| | 3 - 4 years ago | 3 | 1.5 | 1.5 | 94.6 |
| | More than 4 years ago | 11 | 5.4 | 5.4 | 100.0 |
| | Total | 205 | 100.0 | 100.0 | |

**Occup_txt**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | | 5 | 2.4 | 2.4 | 2.4 |
| | Academic | 14 | 6.8 | 6.8 | 9.3 |
| | Academic Developer | 1 | .5 | .5 | 9.8 |
| | Accessibility advisor | 1 | .5 | .5 | 10.2 |
| | Acting Director | 1 | .5 | .5 | 10.7 |
| | Administration | 3 | 1.5 | 1.5 | 12.2 |
| | Administration Coordinator | 2 | 1.0 | 1.0 | 13.2 |
| | Administrative Assitant | 1 | .5 | .5 | 13.7 |
| | Aicraft Structures Engineer | 1 | .5 | .5 | 14.1 |
| | Analyst | 1 | .5 | .5 | 14.6 |
| | Ancilliary Professional Support | 1 | .5 | .5 | 15.1 |
| | Associate Lecturer | 2 | 1.0 | 1.0 | 16.1 |
| | Chief Executive Officer | 1 | .5 | .5 | 16.6 |
| | Cisco Network Engineer | 1 | .5 | .5 | 17.1 |
| | Classroom Teacher | 1 | .5 | .5 | 17.6 |
| | Clerk NSW Government | 1 | .5 | .5 | 18.0 |
| | Communications officer | 1 | .5 | .5 | 18.5 |
| | Computer publishing of learning resources | 1 | .5 | .5 | 19.0 |
| | Consultant for Online Learning | 1 | .5 | .5 | 19.5 |
| | Contact Centre Manager | 1 | .5 | .5 | 20.0 |
| | Coord. - Educational Technology | 1 | .5 | .5 | 20.5 |
| | Counsellor | 1 | .5 | .5 | 21.0 |
| | Director | 2 | 1.0 | 1.0 | 22.0 |
| | Director: Capacity Development | 1 | .5 | .5 | 22.4 |

| | | | | |
|---|---|---|---|---|
| District Nurse Educator | 1 | .5 | .5 | 22.9 |
| Education Officer | 1 | .5 | .5 | 23.4 |
| Educational Developer | 3 | 1.5 | 1.5 | 24.9 |
| ELearning manager | 1 | .5 | .5 | 25.4 |
| Electronics Engineer | 1 | .5 | .5 | 25.9 |
| Engineer | 3 | 1.5 | 1.5 | 27.3 |
| Engineering | 1 | .5 | .5 | 27.8 |
| Executive Assistant | 2 | 1.0 | 1.0 | 28.8 |
| Executive Officer | 1 | .5 | .5 | 29.3 |
| Executive Project Officer | 1 | .5 | .5 | 29.8 |
| Finance Manager | 1 | .5 | .5 | 30.2 |
| Financial Accountant | 1 | .5 | .5 | 30.7 |
| Foster Care Worker | 1 | .5 | .5 | 31.2 |
| Functional Analyst | 2 | 1.0 | 1.0 | 32.2 |
| General Manager / COO | 1 | .5 | .5 | 32.7 |
| Head of Controlling and IT | 1 | .5 | .5 | 33.2 |
| High School Counsellor | 1 | .5 | .5 | 33.7 |
| Housewife | 1 | .5 | .5 | 34.1 |
| HR Officer | 1 | .5 | .5 | 34.6 |
| Human Resources | 1 | .5 | .5 | 35.1 |
| IT | 1 | .5 | .5 | 35.6 |
| IT Admin | 1 | .5 | .5 | 36.1 |
| IT Expert | 1 | .5 | .5 | 36.6 |
| IT Manager | 1 | .5 | .5 | 37.1 |
| IT Project Manager | 1 | .5 | .5 | 37.6 |
| Journalist | 1 | .5 | .5 | 38.0 |
| Laboratory Manager | 1 | .5 | .5 | 38.5 |
| Lawyer | 1 | .5 | .5 | 39.0 |
| Learning & Development Coordinator | 1 | .5 | .5 | 39.5 |
| Learning and Development Manager | 1 | .5 | .5 | 40.0 |
| Learning Designer | 1 | .5 | .5 | 40.5 |
| Learning Resource Development | 1 | .5 | .5 | 41.0 |
| Learning Resources Development | 1 | .5 | .5 | 41.5 |
| Learning resources development officer USQ | 1 | .5 | .5 | 42.0 |
| Learning Support Systems Manager | 1 | .5 | .5 | 42.4 |
| Learning Support Teacher | 1 | .5 | .5 | 42.9 |
| Learning Technologist | 1 | .5 | .5 | 43.4 |

| | | | | |
|---|---|---|---|---|
| Lecturer | 12 | 5.9 | 5.9 | 49.3 |
| Lecturer/Engineer | 1 | .5 | .5 | 49.8 |
| Lecturer~ learning and teaching | 1 | .5 | .5 | 50.2 |
| Librarian | 5 | 2.4 | 2.4 | 52.7 |
| LRDO | 1 | .5 | .5 | 53.2 |
| Manager | 10 | 4.9 | 4.9 | 58.0 |
| Manager~ Asset Management | 1 | .5 | .5 | 58.5 |
| Multimedia Developer | 2 | 1.0 | 1.0 | 59.5 |
| Nurse | 1 | .5 | .5 | 60.0 |
| Nurse Educator | 1 | .5 | .5 | 60.5 |
| Nurse Unit Manager | 1 | .5 | .5 | 61.0 |
| Online Learning Specialist | 1 | .5 | .5 | 61.5 |
| Operation Manager | 1 | .5 | .5 | 62.0 |
| Paramedic | 1 | .5 | .5 | 62.4 |
| Photographer | 2 | 1.0 | 1.0 | 63.4 |
| Process & systems trainer | 1 | .5 | .5 | 63.9 |
| Procurement & Contracts Manager | 1 | .5 | .5 | 64.4 |
| Professor | 5 | 2.4 | 2.4 | 66.8 |
| Programs Manager | 1 | .5 | .5 | 67.3 |
| Project Coordinator | 1 | .5 | .5 | 67.8 |
| Project Leader | 1 | .5 | .5 | 68.3 |
| Project manager | 1 | .5 | .5 | 68.8 |
| Project officer | 1 | .5 | .5 | 69.3 |
| Property Valuer | 1 | .5 | .5 | 69.8 |
| Psychologist | 1 | .5 | .5 | 70.2 |
| Public Relations Associate/Executive | 1 | .5 | .5 | 70.7 |
| Public Servant | 4 | 2.0 | 2.0 | 72.7 |
| Publisher | 1 | .5 | .5 | 73.2 |
| Publishing coordinator (web publishing) | 1 | .5 | .5 | 73.7 |
| Registered Nurse | 3 | 1.5 | 1.5 | 75.1 |
| Research | 1 | .5 | .5 | 75.6 |
| Research Projects Coordinator | 1 | .5 | .5 | 76.1 |
| Retail Bank Manager | 1 | .5 | .5 | 76.6 |
| Rotating Equipment Engineer | 1 | .5 | .5 | 77.1 |
| Sales Associate | 1 | .5 | .5 | 77.6 |
| Secondary Teacher | 1 | .5 | .5 | 78.0 |
| Senior Accountant | 1 | .5 | .5 | 78.5 |
| Senior Engineer | 1 | .5 | .5 | 79.0 |

| | | | | |
|---|---|---|---|---|
| Senior Finance Executive | 1 | .5 | .5 | 79.5 |
| Senior HR/Cultural Consultant | 1 | .5 | .5 | 80.0 |
| Senior Learning Systems Training and Support Officer | 1 | .5 | .5 | 80.5 |
| Senior Lecturer | 3 | 1.5 | 1.5 | 82.0 |
| Senior Lecturer in Higher Education | 1 | .5 | .5 | 82.4 |
| Senior Manager | 1 | .5 | .5 | 82.9 |
| Senior Mechanical Designer | 1 | .5 | .5 | 83.4 |
| Senior Project Officer - Higher Education | 1 | .5 | .5 | 83.9 |
| Service Development Manager | 1 | .5 | .5 | 84.4 |
| Student Support Officer | 1 | .5 | .5 | 84.9 |
| Support Teacher | 1 | .5 | .5 | 85.4 |
| Systems Accountant | 2 | 1.0 | 1.0 | 86.3 |
| Systems Support | 1 | .5 | .5 | 86.8 |
| Tax Consultant | 1 | .5 | .5 | 87.3 |
| Teacher | 6 | 2.9 | 2.9 | 90.2 |
| Teacher Aide | 1 | .5 | .5 | 90.7 |
| Team Lead | 1 | .5 | .5 | 91.2 |
| Team leader foster care | 1 | .5 | .5 | 91.7 |
| Team Leader/Psychologist | 1 | .5 | .5 | 92.2 |
| Technical Advisor~ Insurance Claims | 1 | .5 | .5 | 92.7 |
| Technical Assistant | 1 | .5 | .5 | 93.2 |
| Technical Support | 2 | 1.0 | 1.0 | 94.1 |
| Technology Learning Coach | 1 | .5 | .5 | 94.6 |
| Tertiary Educator | 1 | .5 | .5 | 95.1 |
| Trainer | 1 | .5 | .5 | 95.6 |
| Training and Support | 1 | .5 | .5 | 96.1 |
| Training Developer | 1 | .5 | .5 | 96.6 |
| University Academic | 1 | .5 | .5 | 97.1 |
| University lecturer | 3 | 1.5 | 1.5 | 98.5 |
| University Lecturer/researcher | 1 | .5 | .5 | 99.0 |
| Visiting Professor | 1 | .5 | .5 | 99.5 |
| Workforce development coordinator | 1 | .5 | .5 | 100.0 |
| Total | 205 | 100.0 | 100.0 | |

# Appendix M

## Online Invitation to Participate in Study 2

### Professional Development Survey

**Would you be willing to complete an online survey about motivation to participate in non-mandatory professional development activities provided within your work organisation?**

(Non-mandatory refers to participation that is voluntary or largely self-initiated by employees, rather than being compulsory or fully directed by a supervisor).

- Yes (please read the text below and click on the email link before proceeding) OR

- No (please proceed to the next page).

The survey is being undertaken as part of a doctoral research project at USQ and will contribute to the development of a model of proactive motivation for participation in non-mandatory professional development activities provided within organisations.

The survey will take approximately 30 minutes to complete and includes questions about:

- Organisational investment in non-mandatory professional development;
- The usefulness of activities to employees' career and work;
- Motivations for participation in these activities;
- The benefits of participation;
- Intention to implement strategies to use what is learned in the workplace.

If you are willing to participate please click the email link below to open an email indicating your interest and forward it to the address provided. Further details about the survey will be forwarded by email after receipt of your response.

Psychology.Core@usq.edu.au

The response email is in no way linked to your survey responses already provided. You will be able to stop participating at any time. Please do not change the subject of the email as it is used to locate email responses.

# Appendix N

## Study 2 Ethical Clearance

University of Southern Queensland

TOOWOOMBA QUEENSLAND 4350
AUSTRALIA
TELEPHONE +61 7 4631 2300

CRICOS: QLD 00244B NSW 02225M

www.usq.edu.au

OFFICE OF RESEARCH AND HIGHER DEGREES
Ethics Officer
PHONE (07) 4631 2690 | FAX (07) 4631 1995
EMAIL ethics@usq.edu.au

Tuesday, 10 April 2012

Kim Sankey
C/- Dept of Psychology
Faculty of Sciences
USQ

Dear Kim

The USQ Human Research Ethics Committee (HREC) at its meeting on assessed your application and agreed that your proposal meets the requirements of the *National Statement on Ethical Conduct in Human Research (2007)*. Your project has been endorsed and full ethics approval granted.

| | |
|---|---|
| Project Title | Professional Development Survey |
| Approval no. | H12REA033 |
| Expiry date | 30.04.2014 |
| HREC Decision | **Approved with recommendations:**<br>1) Participant Information Sheet<br>- to inform participants how they can withdraw survey before submission and after submission. If it's after submission, explain how they are able to withdraw submitted data.<br>- to also include text about HREC contact:<br>*If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details:*<br>*Ethics and Research Integrity Officer*<br>*Office of Research and Higher Degrees*<br>*University of Southern Queensland*<br>*West Street, Toowoomba 4350*<br>*Ph: +61 7 4631 2690*<br>*Email: ethics@usq.edu.au* |

**Please note**: the application is approved unconditionally; the recommendations have the status of informal advice which you are not obliged to take note of.

The standard conditions of this approval are:

(a) conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
(b) advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
(c) make submission for approval of amendments to the approved project before implementing such changes
(d) provide a 'progress report' for every year of approval
(e) provide a 'final report' when the project is complete
(f) advise in writing if the project has been discontinued.

For (c) to (e) proformas are available on the USQ ethics website: http://www.usq.edu.au/research/ethicsbio/human



Continued…

Please note that failure to comply with the conditions of approval and the *National Statement (2007)* may result in withdrawal of approval for the project.

You may now commence your project. I wish you all the best for the conduct of the project

**Melissa McKain**
Ethics Officer
Office of Research and Higher Degrees

## Appendix O

### Study 2 Supplementary Analysis for Controlled Motivation

While not forming part of the Proactive Motivation and Antecedents model for participation in non-mandatory PD, the controlled motivation variable was included in supplementary correlational analysis to further address potential concerns about common-method variance (see Study 2, section 5.4.2). The descriptive statistics for Study 2 variables and controlled motivation are presented in Table O.1, followed by the inter-correlations between Study 2 variables and controlled motivation in Table O.2. For completeness, the controlled motivation items are listed below Table O.2.

Table O.1

*Descriptive Statistics of Study 2 Variables and Controlled Motivation*

| Variable | No. of Items | *M* | *SD* | Actual Range[a] | α | Skew | Kurt |
|---|---|---|---|---|---|---|---|
| Commitment to development | 6 | 5.03 | 1.29 | 1.00-7.00 | .93 | -.92 | .51 |
| Useful to Job | 6 | 5.66 | 0.82 | 1.33-7.00 | .91 | -1.46 | 4.88 |
| Useful to Career | 6 | 4.61 | 1.14 | 1.00-7.00 | .90 | -.58 | .50 |
| Autonomous Motivation | 8 | 5.59 | 0.86 | 2.38-7.00 | .87 | -.88 | 1.23 |
| Controlled Motivation | 8 | 2.75 | 1.11 | 1.00-6.00 | .87 | .41 | -.45 |
| Intrinsic Benefits | 6 | 5.49 | 0.87 | 2.00-7.00 | .82 | -.88 | 1.48 |
| Prosocial Benefits | 8 | 5.65 | 0.82 | 2.25-7.00 | .92 | -.97 | 1.78 |
| Implementation Intentions | 11 | 5.26 | 0.84 | 1.73-7.00 | .91 | -.74 | 1.79 |

*Note*. $N = 204$. [a] Potential range = 1.00-7.00. Kurt = Kurtosis.

Table O.2

*Inter-Correlations for Study 2 Variables and Controlled Motivation*

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. Commit to Development | 1.00 | | | | | | | |
| 2. Useful to Job | .42** | 1.00 | | | | | | |
| 3. Useful to Career | .49** | .52** | 1.00 | | | | | |
| 4. Autonomous Motivation | .24** | .36** | .22** | 1.00 | | | | |
| 5. Controlled Motivation | -.12 | -.02 | .08 | -.11 | 1.00 | | | |
| 6. Intrinsic Benefits | .23** | .45** | .43** | .59** | -.11 | 1.00 | | |
| 7. Prosocial Benefits | .30** | .58** | .43** | .51** | -.02 | .68** | 1.00 | |
| 8. Implementation Intentions | .24** | .48** | .36** | .41** | -.04 | .56** | .64** | 1.00 |

*Note*. ** $p$ = .01 (two-tailed).

**Controlled Motivation** (Vansteenkiste et al., 2009)

I participate in professional development activities…

Because I'm supposed to do so.

Because that's something others (supervisors, co-workers, etc.) force me to do.

Because others (supervisors, co-workers, etc.) oblige me to do so.

Because that's what others (e.g., supervisors, co-workers) expect me to do.

Because I want others to think I'm smart.

Because I would feel guilty if I didn't participate.

Because I would feel ashamed if I didn't participate.

Because I want others to think I'm a good employee.

# Appendix P

## Study 2 Online Professional Development Questionnaire

**CAREER AND ORGANISATIONAL RESEARCH UNIT**
**UNIVERSITY OF SOUTHERN QUEENSLAND**

Before starting the survey, close down any menu bars or other programs that may be reducing your screen size. You should be able to read the information on the screen without having to scroll from left to right.

**IMPORTANT: Please read the following information carefully before you complete the survey. You will be asked to provide consent to participate at the bottom of this page.**

**Why are we doing this survey?**

This survey is part of a doctoral research project aimed at investigating employees' motivations for participation in non-mandatory professional development activities provided within work organisations. Non-mandatory activities are activities where participation is voluntary or largely self-initiated by employees, rather than being compulsory or fully directed by a supervisor. The survey asks you to tell us how you feel about your participation in these activities and how they relate to both the job that you do and to your career.

It is anticipated that the results of the study will help us to better understand the factors that are important to employees' motivation to participate in non-mandatory activities and the intention to implement strategies to facilitate the use of what is learned when back in the work place.

All employees who have participated in non-mandatory professional development activities within their work organisation are invited to participate in the survey.

We appreciate your participation! Although we would encourage you to complete the survey, your participation is voluntary and you can withdraw at any time by exiting the survey.

There are no "right" or "wrong" answers to the questions. We simply want to know your views about issues raised in this survey. Please answer all questions as openly as possible.

**How long will it take?**

It usually takes about 20 minutes to complete the survey; however it is important for you to take as much time as necessary.

**What will happen to my answers?**

The information you give is CONFIDENTIAL.

Data will be entered into a secure database on the USQ web server, with information managed by personnel at the Career and Organisational Research Unit. The information collected will be used for research purposes. Results will be aggregated and reported in a way that is intended not to identify any individual.

**NO INDIVIDUAL RESPONDENT WILL BE IDENTIFIED**.

**Follow-up survey**

We also invite you to complete a follow-up survey in 12 months time. As your responses are confidential, the first page of this survey asks you to generate a code, known only to yourself, to enable us to link your survey responses to those you may provide in the future.

If you have any questions about the survey please contact Kim Sankey, on +61 7 4631 2898 or email. For technical concerns or difficulties accessing the survey please contact the Career and Organisational Research Unit, USQ on Psychology.Core@usq.edu.au

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details: Ethics and Research Integrity Officer, Office of Research and Higher Degrees, University of Southern Queensland, West Street, Toowoomba 4350. Ph: +61 7 4631 2690. Email: ethics@usq.edu.au

If you have any questions about the study please contact Kim Sankey, University of Southern Queensland on +61 7 4631 2898 or email Psychology.Core@usq.edu.au. For technical concerns or difficulties accessing the survey please contact Ken Askin, University of Southern Queensland, at askin@usq.edu.au.

I declare that I am:

- at least 18 years of age

and I hereby give my consent to participate in this study **by inserting the number from the bottom left-hand corner of the survey into the Consent ID box below**.

To start the survey please click on the 'Next' button below.

## Participant Code

Why a code? Responses you provide in this research study are confidential. The participant code, known only to yourself, enables you to submit your survey responses without providing personally identifying information.
This unique code also enables us to "match up" your responses from this survey to any additional survey data which you may choose to provide in the future as part of this research. At the end of the survey you will be asked if you would like to participate in a follow-up study. So you won't have to remember your code, you will generate it according to certain guidelines.

**How to make your code.** Create the code as follows:

1. Write the first two letters of your mother's maiden name (her surname at birth) (eg. if your mother's maiden name was Smith, you would put SM).
2. Write the day date on which your birthday falls (if your birthday is on the 4th of the month, you would put 04).
3. Write the first two letters of your surname (eg. if your surname was Cook, you would put CO).

In this example, the unique ID number would be: **SM04CO**

**Please add your unique participation code number:**

## Demographics

This first section asks for some general information about you and the organisation you work for. The information will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL. Results will be aggregated, individual results will not be reported.

For each question, please select the option that best represents your response.

**Gender**

- ○ Male
- ○ Female

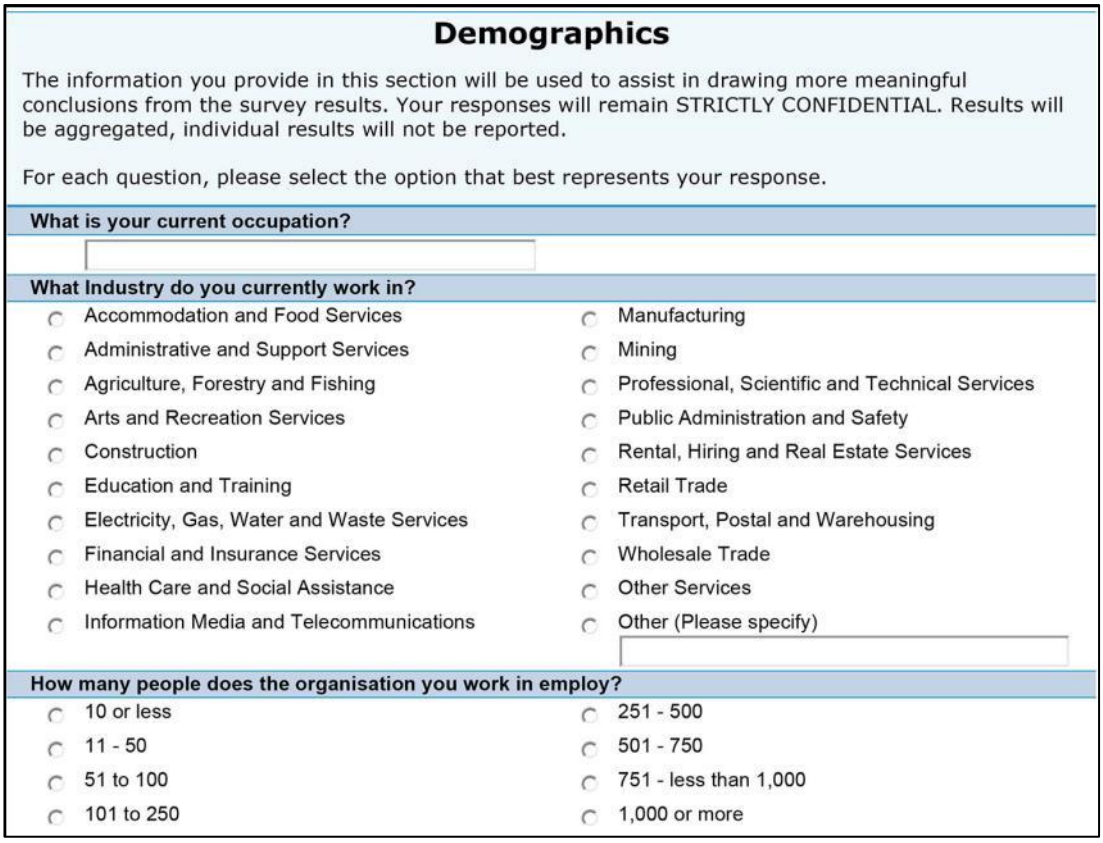
**Age (in years)**

- ○ under 21
- ○ 21 - 25
- ○ 26 - 30
- ○ 31 - 35
- ○ 36 - 40
- ○ 41 - 45
- ○ 46 - 50
- ○ 51 - 55
- ○ 56 - 60
- ○ over 60

**In which country do you live?**

**What is your current employment status?**

- ○ Permanent full-time employment
- ○ Fixed term full-time employment
- ○ Permanent part-time employment
- ○ Fixed term part-time employment
- ○ Casual employment
- ○ Other (Please specify)



## Demographics

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL. Results will be aggregated, individual results will not be reported.

For each question, please select the option that best represents your response.

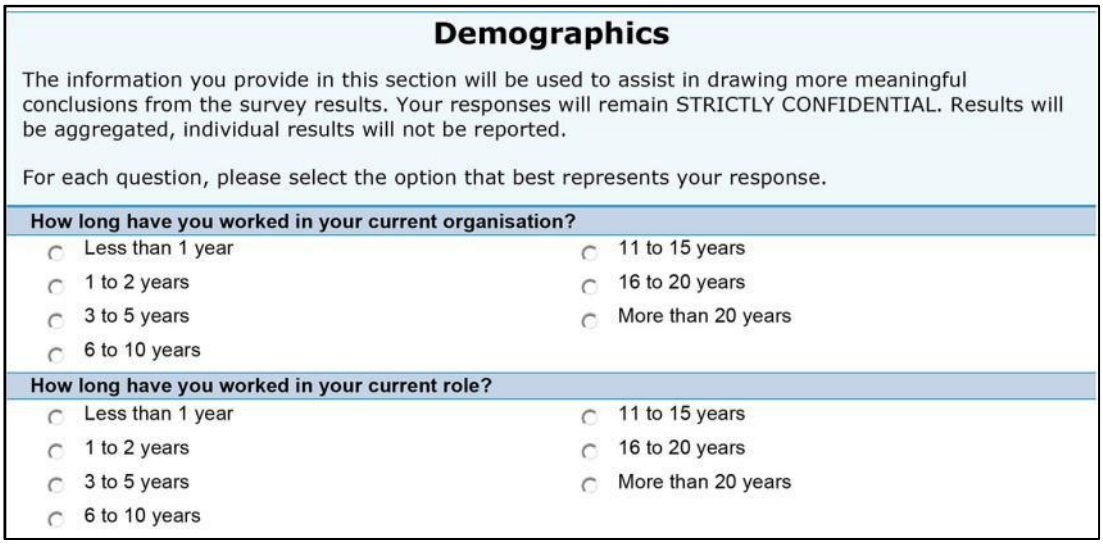
**What is your current occupation?**

**What Industry do you currently work in?**

- Accommodation and Food Services
- Administrative and Support Services
- Agriculture, Forestry and Fishing
- Arts and Recreation Services
- Construction
- Education and Training
- Electricity, Gas, Water and Waste Services
- Financial and Insurance Services
- Health Care and Social Assistance
- Information Media and Telecommunications
- Manufacturing
- Mining
- Professional, Scientific and Technical Services
- Public Administration and Safety
- Rental, Hiring and Real Estate Services
- Retail Trade
- Transport, Postal and Warehousing
- Wholesale Trade
- Other Services
- Other (Please specify)

**How many people does the organisation you work in employ?**

- 10 or less
- 11 - 50
- 51 to 100
- 101 to 250
- 251 - 500
- 501 - 750
- 751 - less than 1,000
- 1,000 or more



## Demographics

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL. Results will be aggregated, individual results will not be reported.

For each question, please select the option that best represents your response.

**How long have you worked in your current organisation?**

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years

**How long have you worked in your current role?**

- Less than 1 year
- 1 to 2 years
- 3 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- More than 20 years

## Demographics

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain STRICTLY CONFIDENTIAL. Results will be aggregated, individual results will not be reported.

For each question, please select the option that best represents your response.

**When did you last attend non-mandatory professional development activities provided within your organisation?** (Non-mandatory refers to activities where participation is voluntary or largely self-initiated by an employee).

- In the last 12 months
- 1 - 2 years ago
- 2 - 3 years ago
- 3 - 4 years ago
- More than 4 years ago

**Do you plan to attend non-mandatory professional development activities provided within your organisation during the next 12 months?**

- Yes
- No
- Not sure

## Organisational commitment to employee development

Kuvaas & Dysvik, (2009)

Listed below are a number of statements that could be used to describe your work organisation's commitment to employee development.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| By investing time and money in employee development, my organisation demonstrates that it actually invests in its employees | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| My organisation stands out as an organisation that is very focused on continuous development of the skills and abilities of its employees | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| By way of practices such as developmental performance appraisal, counselling systems, competence development programmes and leadership development programmes, my organisation clearly demonstrates that it values development of the skills and abilities of its employees | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| My organisation invests heavily in employee development (for instance by way of training, programmes and career development) | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I definitely think that my organisation invests more heavily in employee development than comparable organisations | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I'm confident that my organisation will provide for the necessary training and development to solve any new tasks I may be given in the future | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Usefulness to job and career

Usefulness to job items adapted from Calisir and Calisir (2004)

The following statements focus on your thoughts about the usefulness of what you learn in non-mandatory professional development activities to your job and to your career within your organisation.

Please read each statement carefully and indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Using what I learn will make it easier to do my job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will help me achieve my career ambitions within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will enhance my effectiveness on the job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will increase my job security within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will not help me reach my career goals within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will enable me to accomplish job tasks more quickly | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will be useful to my career development within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Usefulness to job and career

Usefulness to job items adapted from Calisir and Calisir (2004)

The following statements focus on your thoughts about the usefulness of what you learn in non-mandatory professional development activities to your job and to your career within your organisation.

Please read each statement carefully and indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Using what I learn will increase the amount of responsibility I am given within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will improve my job performance | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will not enhance my prospects of promotion within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will allow me to apply for other positions within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will increase my productivity | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Using what I learn will aid my career advancement within this organisation | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| What I learn will be useful to my job | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Motivation for participation in professional development

Vansteenkiste et al (2009)

The following statements focus on your motivation for participating in non-mandatory professional development activities provided within your organisation. Please read each statement carefully.

Please indicate how important each of the listed motives is for you by selecting the option that best represents your response.

| I participate in professional development activities... | Completely Unimportant | Unimportant | Slightly Unimportant | Neither Important nor Unimportant | Slightly Important | Important | Very Important |
|---|---|---|---|---|---|---|---|
| Because I enjoy doing it | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I want others to think I'm smart | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because this represents a meaningful choice to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because that's something others (supervisors, co-workers, etc.) force me to do | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I'm supposed to do so | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I want others to think I'm a good employee | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because this is an important life goal to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because it's fun | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Motivation for participation in professional development

Vansteenkiste et al (2009)

The following statements focus on your motivation for participating in non-mandatory professional development activities provided within your organisation. Please read each statement carefully.

Please indicate how important each of the listed motives is for you by selecting the option that best represents your response.

| I participate in professional development activities... | Completely Unimportant | Unimportant | Slightly Unimportant | Neither Important nor Unimportant | Slightly Important | Important | Very Important |
|---|---|---|---|---|---|---|---|
| Because it's an exciting thing to do | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I would feel guilty if I didn't participate | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I want to learn new things | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I am highly interested in doing this | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because I would feel ashamed if I didn't participate | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because others (supervisors, co-workers, etc.) oblige me to do so | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because it is personally important to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Because that's what others (e.g., supervisors, co-workers, etc.) expect me to do | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Motivation toward others at work

Grant (2008a); Grant (2008b); Grant & Sumanth (2009)

The following statements focus on your thoughts, feelings, and behaviours toward others at work.

Please read each statement carefully. Indicate how much you agree with each statement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I care about benefitting others through my work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I want to help others through my work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I want to have positive impact on others through my work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It is important for me to do good for others through my work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I get energized by working on tasks that have the potential to benefit others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I like to work on tasks that have the potential to benefit others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Motivation toward others at work

Grant (2008a); Grant (2008b); Grant & Sumanth (2009)

The following statements focus on your thoughts, feelings, and behaviours toward others at work.

Please read each statement carefully. Indicate how much you agree with each statement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I prefer to work on tasks that allow me to have a positive impact on others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I do my best when I'm working on a task that contributes to the well-being of others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It is important to me to have the opportunity to use my abilities to benefit others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It is important to me to make a positive difference in people's lives through my work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| At work, I care about improving the welfare of others | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| One of my objectives at work is to make a positive difference in other people's lives | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Benefits of participation in professional development

Maurer, Weiss, & Barbeite (2003)

Listed below are a number of statements that could be used to describe some of the benefits of participating in non-mandatory professional development activities provided within your organisation.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Professional development activities are not likely to help me get better pay or other rewards | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Career-related professional development activities seem very worthwhile to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| My participation in professional development activities will not make a difference in how interesting my work is | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Better pay or other rewards are likely to result from my participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activities are likely to help me develop and reach my full potential as a person | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I think professional development activities related to my career would be very beneficial to me | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Benefits of participation in professional development

Maurer, Weiss, & Barbeite (2003)

Listed below are a number of statements that could be used to describe some of the benefits of participating in non-mandatory professional development activities provided within your organisation.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| If I participate in work-related professional development activities, my work would likely be more interesting as a result | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activity participation will not help my personal development, self-esteem, self-confidence, etc. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to get more interesting work assignments and more stimulating work if I participate in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Participation in professional development activities will help me advance my career | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Career benefits of participation in professional development

Listed below are a number of statements that could be used to describe some of the career benefits of participating in non-mandatory professional development activities provided within your organisation.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| Professional development activities are likely to enhance my résumé | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Participation in professional development activities will benefit my career development | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Participation in professional development activities will extend my qualifications | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Participation in professional development activities will help me fulfil my career plan | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Formal recognition of learning is likely to result from my participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Professional development activity participation will help me build qualifications that are recognised in other organisations | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Interaction with others after participation in professional development

The following statements describe some of the interactions with others that may occur after participation in professional development activities.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I am likely to share the skills/ knowledge I gain in professional development with others at work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to serve internal and external clients better as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to mentor others at work as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to be more supportive of fellow workers as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to contribute more effectively to those around me as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to be a better team member as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to use what I learn in professional development to help others at work | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am likely to contribute more effectively to the organisation as a result of participation in professional development activities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Intention to implement strategies to use learning

Machin & Fogarty (2004)

The statements below are designed to assess your intentions for using the skills you will learn during the next 12 months.

Please read each statement carefully. For each statement, indicate your level of agreement by selecting the option that best represents your response.

| | Strongly Disagree | Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I will discuss with my supervisor ways to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will discuss with my co-workers ways to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will spend time thinking about how to use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will evaluate how successfully I can use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will look for opportunities to use the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will review course materials in order to develop the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will practice using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will set specific goals for maintaining the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will seek expert help/advice in order to maintain the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will examine my work environment for potential barriers to using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I will monitor my success at using the skills which I have learned | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## Comments

**Would you like to make additional comment regarding your participation in non-mandatory professional development activities?**

## Follow-up Professional Development Survey

**Would you be willing to participate in a follow-up study about your participation in non-mandatory professional development activities to be undertaken in 12 months time?**

If yes, before proceeding please click on the email link below to open an email indicating your interest and forward it to the address provided. Further details will be forwarded by email closer to the time of the follow-up study.

Psychology.Core@usq.edu.au

## Appendix Q

## Study 2 Variables and Items

**Commitment to Development** (Kuvaas & Dysvik, 2009)

By investing time and money in employee development, my organisation demonstrates that it actually invests in its employees.

My organisation stands out as an organisation that is very focused on continuous development of the skills and abilities of its employees.

By way of practices such as developmental performance appraisal, counselling systems, competence development programmes and leadership development programmes, my organisation clearly demonstrates that it values development of the skills and abilities of its employees.

My organisation invests heavily in employee development (for instance by way of training, programmes and career development).

I definitely think that my organisation invests more heavily in employee development than comparable organisations.

I'm confident that my organisation will provide for the necessary training and development to solve any new tasks I may be given in the future.

**Useful to Job** (based on Calisir & Calisir, 2004)

Using what I learn will enable me to accomplish job tasks more quickly.

Using what I learn will improve my job performance.

Using what I learn will increase my productivity.

Using what I learn will enhance my effectiveness on the job.

Using what I learn will make it easier to do my job.

What I learn will be useful to my job.

**Useful to Career**

Using what I learn will not enhance my prospects of promotion within this organisation.*

Using what I learn will aid my career advancement within this organisation.

Using what I learn will not help me reach my career goals within this organisation.*

Using what I learn will help me achieve my career ambitions within this organisation.

Using what I learn will allow me to apply for other positions within this organisation.

Using what I learn will increase the amount of responsibility I am given within this organisation.

Using what I learn will be useful to my career development within this organisation.

Using what I learn will increase my job security within this organisation.

**Autonomous Motivation** (Vansteenkiste et al., 2009)

I participate in professional development activities…

Because I want to learn new things.

Because it is personally important to me.

Because this represents a meaningful choice to me.

Because this is an important life goal to me.

Because I am highly interested in doing this.

Because I enjoy doing it.

Because it's fun.

Because it's an exciting thing to do.

**Intrinsic Benefits** (adapted from Maurer, Weiss, & Barbeite, 2003)

Career-related professional development activities seem very worthwhile to me.

Professional development activities are likely to help me develop and reach my full potential as a person.

I think professional development activities related to my career would be very beneficial to me.

If I participate in professional development activities, I will be more well-rounded and a better person overall, at work and outside of work.

If I participate in work-related professional development activities, my work would likely be more interesting as a result.

Professional development activity participation will not help my personal development, self-esteem, self-confidence, etc.*

**Prosocial Benefits**

I am likely to share the skills/ knowledge I gain in professional development with others at work.

I am likely to serve internal and external clients better as a result of participation in professional development activities.

I am likely to mentor others at work as a result of participation in professional development activities.

I am likely to be more supportive of fellow workers as a result of participation in professional development activities.

I am likely to contribute more effectively to those around me as a result of participation in professional development activities.

I am likely to be a better team member as a result of participation in professional development activities.

I am likely to use what I learn in professional development to help others at work.

I am likely to contribute more effectively to the organisation as a result of participation in professional development activities.

**Transfer Implementation Intentions** (Machin & Fogarty, 2004)

I will discuss with my supervisor ways to develop the skills which I have learned.

I will discuss with my co-workers ways to develop the skills which I have learned.

I will spend time thinking about how to use the skills which I have learned.

I will evaluate how successfully I can use the skills which I have learned.

I will look for opportunities to use the skills which I have learned.

I will review course materials in order to develop the skills which I have learned.

I will practice using the skills which I have learned.

I will set specific goals for maintaining the skills which I have learned.

I will seek expert help/advice in order to maintain the skills which I have learned.

I will examine my work environment for potential barriers to using the skills which I have learned.

I will monitor my success at using the skills which I have learned.

*Note*. * Reverse-scored item.