

# **Self-directed learning and apprenticeships: An emerging grounded study**

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## **Abstract**

This emerging doctoral research is concerned with apprenticeships within traditional trade areas that are employed by a Group Training Organisation (GTO) operating within the Australian Capital Territory and Southern New South Wales geographical regions. Using constructivist grounded theory, data collection and concurrent analysis has commenced, with the researcher using semi-structured interviews of apprentices, supervisors and vocational teachers to understand the processes associated with the development of self-directed learning by apprentices. This paper seeks to engage practitioners and researchers within the Vocational Education and Training (VET) community in identifying and discussing the concept of *finding value*.

## **Introduction**

In this paper I report on the progress and share initial findings of my doctoral research as it reaches the mid-way point. My interest in this area stems from my background as an apprentice, tradesperson, vocational teacher, educational leader, Fulbright Scholar and now doctoral candidate, and my fascination with the question: how can someone like me, who was disengaged with secondary school, be writing this paper in the first place? Certainly I see completing my apprenticeship as offering the first set of stepping-stones on the way to this point; an image, which I think of as an analogy for self-directed learning.

During this project I am seeking to add to the knowledge base by developing a deep understanding of the manner in which apprentices in contemporary Australian work environments develop the capacity for self-directed learning. My decision to use the research methodology of constructivist grounded theory allowed me to use self-directed learning, as the sensitising concept to guide the collection of data. This paper presents my initial observations towards the development of a substantive theory of how apprentices develop the capacity to be self-directed learners, specifically the emerging category of the apprentice *finding value* to seek an apprenticeship.

### **Research Questions**

This paper concentrates on the emerging category of how apprentices find value to seek and commence an apprenticeship but the broader study seeks to find answers to the following questions.

- How does self-directed learning develop in apprentices?
- What are the relationships between contemporary vocational pedagogy, self-directed learning and emerging professional practice of apprentices in Australia?
- What substantive theory can be used to demonstrate the process through which apprentices develop the capacities for self-directed learning?

These questions are important, as there is renewed interest within VET for the development of cognitive skills to complement technical skills (National Quality Council, 2009).

The anticipated outcome of this study is the development of a substantive theory about self-directed learning within apprenticeships, to contribute to the existing

knowledge base of self-directed learning, workplace learning, professional and vocational pedagogy.

### **Ethics and methods**

Ethics approval for this research project was granted from the University of Southern Queensland (#H13REA049) and permission to conduct research was also attained from the GTO that employed the apprentices and the Registered Training Organisation (RTO) that employed the vocational teachers. The apprentices were interviewed at the premises of the GTO, away from their workplace. The supervisors and vocational teachers were interviewed within their workplaces at a location where distractions and external influences could be minimised. Interviews were recorded using a digital voice recorder. Following transcription of the interview by the researcher, each participant was provided with copy of the transcript for validation. Subsequently, the participants were encouraged to clarify or extend on topics.

At the time of writing this paper, I have interviewed 7 apprentices, 3 supervisors and 3 vocational teachers who are active participants in terms of apprentice learning where both on-the-job and off-the-job approaches to delivery and assessment are incorporated. The questions asked during these interviews sought to illuminate the participants' understandings about self-directed learning and how the ability to be self-directed is developed by apprentices. The quality and content of these interviews depended, to a great extent, on the rapport that I built with the research participants. I do not believe that I would have had the same high level of engagement with the participants if I introduced myself as a 'doctoral student' as opposed to a 'tradesperson' in, what the participants identified, as a traditional trade. During the

concurrent collection and analysis of data the researcher has constructed emergent categories from the data.

The initial approach to data collection was underpinned by the sensitising concept of self-directed learning. Sensitising concepts provide an epistemological underpinning, within constructivist grounded theory, as an initial theoretical perspective towards the research process. The sensitising concepts have guided the initial data collection, through semi-structured interviews and initial (purposeful) sampling of apprentices and theoretical sampling of supervisors and vocational teachers (Charmaz, 2006, 2009).

## **Methodology**

The research methodology that is being used within this research project is constructivist grounded theory within an interpretivist paradigm. This methodology is constructivist as it assumes that knowledge is socially constructed and it is interpretative as the emerging theory is informed by the perspective and positioning of the researcher (Charmaz, 2006). Grounded theory is a commonly used and popular approach to qualitative research methods (Charmaz, 2006). It is a relatively new method that was developed towards the late 1960's and has been accredited to Glaser and Strauss (1967). The objective of grounded theory, through an interpretive theoretical lens, is the description of society and the identification of core concepts required for change (Cohen, Manion, & Morrison, 2007). Grounded theory allows the development of theory and the illumination of what has occurred and what is occurring (Morse, 2009). Grounded theory “forms frameworks that explains why organisations, communities or nations experience and respond to events, challenges

and problematic situations” (Corbin & Holt, 2011, p. 113). Given that the proposed research aims to illuminate and explain the experiences of apprentices, the methodology of constructivist grounded theory is highly suitable. The resulting substantive theory that will emerge from the study will be compared to existing theories and the ‘theory development approach’ of constructivist grounded theory may provide insights that are not obvious to ‘theory testing’ researchers.

An essential feature of grounded theory research is the continuous cycle of collecting and analysing data. The data is analysed as soon as it is collected. Another feature of grounded theory research is the researcher’s writing of reflective memos. Charmaz (2006) suggests these “catch your thoughts, capture the comparisons and the connections you make and crystalise questions and directions for you to peruse” (p. 72).

Within the broader community of grounded theorists there is debate about where to locate the literature review. Within classic grounded theory, Glaser and Strauss (1967) were concerned with the undue influence or perspectives that a researcher may bring to research where grounded theory was the methodology. They suggested that in order to mitigate pre-conceived ideas the researcher should delay the review of literature until the twilight stages of the research. Their belief was that by doing so researchers would be more open to finding what was *in* the data rather than forcing the data to fit pre-existing ideologies and concepts. Charmaz (2006) rejects this view and consistent with Charmaz’ constructivist approach to grounded theory; I commenced this research project with an initial review of the literature. Informed by my professional experience and background.

## **Literature Review**

The literature regarding self-directed learning is expansive and, within this paper, I will focus on the origins, interpretation and tensions of self-directed learning.

Self-directed learning has been a fundamental aspect of the practice and identity of adult educators since receiving scholarly interest some 40 years ago (Houle, 1972; Knowles, 1975; Tough, 1967). There is a broad literature base on adult education where learning is facilitated as opposed to didactically taught which has been linked in education theory and practice to the notion that adults direct their own learning, in contrast to learning that is directed by teachers (Merriam, Caffarella, & Baumgartner, 2007). Foley (1992) observes that this self-direction for many educators came to be understood as inherent characteristics of cognition, where the educator facilitated the emergence of these characteristics in adult learners. Mezirow (2000) identifies that the broad purpose for adult education is “to help adults realise their potential for becoming more liberated, socially responsible and autonomous learners – that make more informed choices by becoming critically reflective” (p. 30). Becoming critically reflective is consistent with becoming a self-directed learner, as the key to self-directedness is being critical of taken for granted assumptions (Brookfield, 2012).

Brookfield (1986) and Merriam et al. (2007) purport that questioning assumptions goes to the purpose and practice of adult education that arguably places self-direction as a distinctive form of adult cognition and an approach to identify a methodical inclination exercised by adults. Tough (1979) and Knowles (1973, 1975) have been inclined to stress self-directed learning in terms of a systematic approach to designing

learning activities for adults which includes adults diagnosing their own learning needs and choosing and implementing their individual learning strategies. Subsequent writers have suggested that self-directed learning is more a complex experience than represented by the systematic process. Kasworm (1983) contends that a systematic approach to learning fails to consider the internal or external state of the learner, and Brookfield (1986) suggests that this systems approach is a linear model of self-directed learning which ignores the social context where learning takes place.

Cranton (2006) accepts that adult learning is usually described as self-directed, however reflects that the definitions for self-directed learning are varied and confusing. According to Cranton, this confusion commenced with Knowles (1975, 1980) when he suggested that adults have a “preference” for self-directed learning. Cranton believes that in practice, the preference aspect of self-directed learning has been overlooked. Subsequently, self-direction has been considered as something that adults intrinsically possess and that therefore does not require to be developed in adults in order to become a favoured approach to teaching and learning. Hiemstra and Brockett (2012) suggest that administrators and practitioners who subscribe to the belief that self-directed learning is intrinsic to learners have a tendency to cite this position as a justification to reduce resources to adequately support learners where students are left to their own devices and are held solely accountable for not meeting learning outcomes. Carré, Jézégou, Kaplan, Cyrot, and Denoyel (2011) caution that we must remain watchful that learners are not put in the position of being the sole managers of their education. Additionally, despite the acknowledgement that the ability to be self-directed is essential in dealing with complexity (Guglielmino & Long, 2011), students that have previously excelled within didactic or teacher centred

approaches appear to value the familiar and are resistant to change. Therefore, for some students, strategies that promote self-directed learning can be seen as intimidating as they are encouraged to accept increased responsibility for their learning (Piskurich, 2011; Smith, 2001).

Acknowledging the varied and confusing definitions and varied applications of self-directed learning, Candy (1991) synthesised the early literature, in relation to self-directed learning, and developed a helpful framework for learners and educators. The framework consisted of four facets: learner control in terms of people making decisions about their learning; autonomy as a personal characteristic; self-management by the individual planning their educational experience; and the autodidaxy of engaging in formal independent learning projects. In support, Merriam et al. (2007) states that there are three main goals for self-directed learning:

- i. To enhance the ability for adult learners to be self-directed in their learning;
- ii. Foster transformational learning as central to self-directed learning;
- iii. Promote emancipatory learning and social action as integral to self-directed learning.

Over the last decade there has been little scholarly attention given to self-directed learning within the context of Australian VET. Earlier work by Brooker and Butler (1997) which focussed on apprenticeships, showed that self-directed learning in the workplace can be effective if structures to support on-the-job learning are implemented and maintained. Their research, at that time, indicated that apprentices were often left to learn on their own. They also observed that when processes *were* in place to support learning in the workplace, there was still a considerable level of

assumption that apprentices were innately self-directed. Smith (2001) observed that the challenge to implementing approaches to self-directed learning and supporting learners in the workplace was not that enterprises had an unwillingness, but that it was more of a problem of them knowing how to implement these strategies. In support for workplaces recognising self-directed learning Smith (2002) also commented:

*“there is considerable commercial value in encouraging employees to become effective self-directed learners such that they can develop and pursue their learning goals and outcomes that contribute to competitiveness without the need for all learning to occur only when there is direct training by an instructor” (p. 111).*

I believe that revisiting the seminal and applied literature on self-directed learning is important because of the varied interpretations and tensions of the applications on self-directed learning in teaching and learning practice. This is particularly so since the introduction of competency based training within the Australian VET system has led to an emphasis on meeting outcomes with a focus on goals. This approach has been detrimental to notion of ‘learning to learn’ which is synonymous with the development of self-direction for a lifetime of learning.

### **Initial findings and discussion**

The emerging category of *finding value* consists of three sub categories (or factors) including the *influence of family and friends*, *experiences with work* and *high self-efficacy*. These represent the initial findings of this research project and they will be reflected with the development of a substantive theory.

### Influence of family and friends

This research suggests that the decision of the apprentices to seek an apprenticeship within the trades was influenced by their family and friends and the value that family and friends place on vocational education and training opportunities as a worthwhile occupational choice.

In the following interview extracts the participants describe the influences of their family and friends in seeking an apprenticeship and a trade occupation:

*“I knew heaps of electricians and plumbers so I wanted to do something different.*

*My grandfather was a carpenter so that’s why I wanted to do carpentry” (A01).*

*“I always had support with my brother being a bricklayer and he got me into it by doing a few weekend jobs” (A03).*

*“A few of my mates dropped out of school and became apprentices so it seemed like a good idea and going to university just seemed like going to school again. I hated school” (A05).*

The role of family and friends in tertiary study choices in the southern United Kingdom has been explored by Brooks (2003). Brooks highlighted the central importance of friends and peers in making decisions about further study opportunities, and along with families, have a clear role in informing young people’s understandings of education opportunities. Brooks found that young people’s parents and step-parents played a pivotal role in influencing and informing their tertiary study choices. She found that this influence was not informed by the caregivers’ socio-economic or class status but “on the basis of finer-grained differences such as the extent which they had contact with graduates within the workplace” (p. 290).

Identifying alternative findings to those of Brooks (2003) regarding the influence of parents, their occupation, and social-economic status, Curtis (2008) found from analysis of a longitudinal survey of Australian youth that young people were more likely to commence an apprenticeship if their parents were tradespeople and possessed technical or trade qualifications. In addition to their parents' occupation, young Australians were also more likely to commence an apprenticeship if they were lower achieving students who left school before completing Year 12 and came from low to medium social economic backgrounds.

Collinson (2012) in a study into the sources of teachers' values and attitudes in the United States found that her participants did not necessarily choose to emulate the occupational choices of their parents but credited their parents with instilling values and attitudes towards learning and work. Collinson (2012) also established that spouses and significant others were also influential in re-thinking values and attitudes along with family and close associates. She identified that other situations that led to the re-thinking of values include experiences of another career, life routines and experiences, colleagues, teachers and role models.

### **Reflective Memo - 31 July 13**

At the time of writing this research memo I am progressing well with the interviews of the apprentices. One of the emerging themes is the influence of family and friends when a young person is considering an apprenticeship and a subsequent trade career. Driving home from the interviews today I was thinking about the influences in my life when I was seeking an apprenticeship. My secondary school metal work teacher, a fitter and turner who did his time at pulp and paper mill, significantly influenced me. Through him I became fascinated with all things mechanical particularly precision components such as roller bearing and gear trains. To me aiming to become a fitter and turner seemed like a good option. I certainly valued the craft. My parents were semi-skilled shift workers at a local food-processing factory. I recall that they worked hard and were fully supportive of me seeking an apprenticeship. I knew that I didn't want to follow them and I had a sense that they didn't want that either. I can still remember the initial disappointment on my father's face when I informed him that I had been accepted into the army as an apprentice fitter and turner and initially indicated to him that I was going to decline the offer and stay in Tasmania.

I wonder what other influences or considerations are there for those today who are seeking an apprenticeship?

### Experiences with work

In addition to the influence by family and friends the decision to seek an apprenticeship and a trade career was also influenced by the apprentice's past experience with the workplace. These workplace experiences included prior work experience, either voluntary, part time, fulltime employment and work experience initiatives at secondary school.

This is supported by the following information from the participants:

*"When I was at school I did some work experience. I did one in scaffolding, plumbing and then carpentry and I always from a young age thought I would be a carpenter" (A02).*

*"I have lots of previous trade experience laboring and wasn't really going anywhere. I decided that I couldn't be a labourer and the next step was driving plant machinery but realistically this was just a glorified labourer and decided to seek an apprenticeship" (A04).*

*“When I first started my apprenticeship I didn’t appreciate it. I did roofing for a year and went back to my apprenticeship” (A06).*

*“I went to the United Kingdom and worked in a joinery factory where I was just a trade assistant. I moved to the United States and was working for a carpenter. When I came to Australia, as I didn’t have a trade ticket I couldn’t get employment in carpentry. So my reason for doing an apprenticeship was because I needed to get that ticket behind me” (A07).*

*“I looked into a job in building because I love building and I helped two friends build a house” (T02).*

Past experience within the workplace, as revealed by the data collected, contributes to the apprentices realising the value of an apprenticeship. According to Cooper, Orrell, and Bowden (2010) work experience opportunities, which they refer to as drivers:

- Build awareness of potential careers and career development.
- Provide opportunities for civic engagement and service learning.
- Develop dispositions with regard to global citizenship.
- Increase workplace literacy to enable and enhance knowledge generation and transformation.
- Personal development through enhancement of capacity for communication, negotiation, empathy and self-awareness (p. 59).

### High self-efficacy

This research has revealed the influence of others and prior work experience impacts on the apprentice determining the value of the apprenticeship. It was also found that the apprentice was also influenced by their belief that completion of a trade qualification was not only valuable, but also achievable – within their reach with an expectancy of completion.

Bandura (1997) outlined self-efficacy as the individual's perceived ability at a task. Firstly Bandura contends that self-efficacy is personal and regardless of the influence on the apprentices of family, friends and past experiences with work, self-efficacy is an individual perception. Secondly as self-efficacy is task or competency specific an apprentice can consider him or herself as not being very good at architectural drafting but accomplished at building roof trusses (Bandura, 1997). As one apprentice suggested during this study:

*"I thought that I was smarter than progressing to becoming a plant machinery driver and wanted to get out and actually do something" (A04).*

Other respondents suggested that they were practical learners and could not or did not like learning from books. The fact that they considered themselves to be better at seeing an item to replicate than reading a drawing, and better at being shown through demonstration how to do tasks as opposed to being given verbal instructions also evidenced this.

During a study of dispute negotiation and resolution in the Hong Kong construction industry which was premised on Bandura's notion of self-efficacy, Yiu, Cheung, Asce, and Siu (2012) describe that:

*"People who have confidence in their capabilities with respect to a specific task anticipate a successful performance, focus their thoughts on how they can succeed, and persist in the face of difficulty while people will avoid tasks for which they have low levels of self efficacy" (p. 131).*

According to Bandura (1997) self-efficacy is influenced by four main factors which include enactive attainment or mastery of practice, modeling and vicarious learning, and local persuasion and physiological arousal. Enactive attainment or mastery of practice suggests that the more we practice the more skillful we become; our skills increase in that particular activity where high mastery and high levels of self-efficacy are linked. As we see others in an activity the influence of modeling and vicarious learning comprehends that comparing ourselves with others, and when we see ourselves similar we are more likely to attempt the task upon observing successful completion. When we observe unsuccessful completion or failure of the task, we avoid the task. Social persuasion is consistent with the sub-category of the influence of family and friends and acknowledges that the more power a person has in the apprentice's life; there is propensity for the impact of their advice and opinion to be more effective. The final influence is physiological arousal in terms of the messages that we receive from our body when we engage in rewarding or unpleasant activities. These messages or signals may be obvious like perspiration, increased heart rate or pain. More subtle and equally effective physiological influences involve the release of endorphins or adrenalin (Bandura, 1997, 2012; Sullivan, 2009a, 2009b).

## **Conclusion**

In grounded theory, researchers describe their samples in great detail to allow the reader to decide whether or not to generalise conclusions to similar substantive instances offered by other scholars. These decisions made by readers are theoretical rather than statistical. As a grounded theorist I am less interested in the generalisation of specific findings and more in the generalisability of the developed substantive theory that can be applied, at the judgment of the reader, across a diversity of practice

settings (Cohen et al., 2007). The development of this substantive theory, which will represent the conclusion of this inquiry, will be influenced by the emerging category of *realising value* and the sub-categories of the *influence of family and friends*, *experiences with work* and *high self-efficacy* that has been identified within this paper.

This doctoral research journey is an inquiry into how apprentices develop the capacity for self-directed learning within a group training organisation that operates within the geographic region of the Australian Capital Territory and Southern New South Wales. The development of a substantive theory will be an interpretation, and a way of explaining, how self-direction may be facilitated within apprenticeships. I hope this insight will ultimately prove valuable to practitioners, educational leaders and policy makers within VET in Australia, and perhaps more broadly, who have an interest in this important area of professional practice.

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