The Relationship between Hope and Self-Directed Learning in the Workplace

A Dissertation Presented for the

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Dedication

This dissertation is dedicated to my children, Andrea Kelly and Patrick Space, and to my grandchildren, Abby Space, Matthew Booker, and Alyssa Kelly. I hope this journey will inspire you to be lifelong learners, to continually pursue your passion in life, and to always have “hope” that you can overcome any obstacles that stand in the way of you achieving your dreams.

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Now, let the adventure begin!

Abstract

This study investigated the relationship between self-directed learning and hope in the workplace. Participants completed two self-directed learning instruments, the Survey of Adult Learning Traits (SALT) (Hogg, 2008) and the Learner Self-directedness in the Workplace Scale (LSWS) (De Bruin & De Bruin, 2011), along with two hope scales, the Hope Trait Scale (Snyder et al., 1991) and the author-generated Workplace Learning Hope Scale. Correlation, ANOVA, and multiple regressions were used to test the relationship and differences between self-directed learning and hope, specifically within the domain of workplace learning. All instruments utilized in this study displayed sound internal consistency reliability. The author-generated Workplace Learning Hope Scale was found to be a valid and reliable measure to measure hope specifically within the domain of workplace learning. Statistically significant relationships were found between the Workplace Learning Hope Scale and each of the other instruments utilized in this study. Additionally, both self-directed learning instruments were found to be positively significantly correlated with each other. The self-reported number of the participant's annual voluntary formal training hours was found to be significantly positively correlated with the scores on both the Workplace Learning Hope Scale and the LSWS. The participant's self-reported number of annual SDL projects was found to be only significantly positively correlated with the LSWS. However, the SALT was not found to be significantly correlated with either the number of annual voluntary training hours or the number of annual SDL projects. The participants' perceived satisfaction with their level of workplace learning, as well as their perceived level of importance of workplace learning, was found to be significantly positively correlated with the Workplace Learning Hope Scale, the LSWS, and the SALT. However,

“dissatisfaction” was found to be only significantly negatively correlated with the SALT but not with the Workplace Learning Hope Scale as expected. The study concludes with implications for research and practice. Suggestions for further research are proposed along with a discussion of the results and conclusions.

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Chapter 1

Introduction to the Study

Workplace learning continues to constitute a substantial investment for organizations. The American Society of Training and Development's (ASTD) annual State of the Industry report found that U.S. organizations spent $164.2 billion on workforce training in 2012, an increase in spending from the previous year (Miller, 2013, p. 25). However, self-directed learning projects have been found to be one way that organizations can create more efficient ways of training in order to accomplish the organization's goals (Hsu & McLean, 2007).

First, it is important to understand which definition of self-directed learning is most applicable for workplace learning. Merriam and Caffarella (1999) define self-directed learning as one of three forms of informal learning. Yet, Mocker and Spear (1982) differentiate between formal learning, where the learner neither controls the environment nor the process; nonformal learning, where the learner controls the objective but not the process; informal learning, where the learner controls the process but not the objective; and self-directed learning, where the learner controls both the objective and the process. From another perspective, Knowles defines self-directed learning in general as the "process in which individuals take the lead in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (1984, p. 301).

A similar but related concept, learner self-directedness refers to the internal disposition of the learner's preference for accepting responsibility for their learning (De Bruin & De Bruin, 2011). Self-directedness has been positively correlated with more than 25 variables, including

the work related variables of self-efficacy (Martin, 1993, as cited in Owen, 2002), self-concept (Adkins, 1996), on-the-job learning (Oddi, Ellis, & Roberson, 1990), and job performance/assessment of job performance by management (Jude-York, 1993, as cited in Owen, 2002).

However, Brockett and Hiemstra (1991) contend that the *term self-direction in learning* better defines the concept than self-directed learning. Self-direction in learning refers to both the external characteristics of the learning process and the internal characteristic of learner self-direction. Their Personal Responsibility Orientation (PRO) model illustrates the how the two dimensions are related and is described in more detail later in this chapter.

There have been links made between self-directed learning and certain variables associated with positive psychology (Brockett, 2006). For example, self-directed learning has been linked to self-esteem and self-efficacy (S. Hoban & Hoban, 2004), resilience (Robinson, 2003), self-determination (Stockdale, 2003), life satisfaction (Brockett, 1985), and wellness and coping with chronic illness (Nelson, 2000; Owen, 1999). However, Brockett (2006) suggests exploring the SDL and positive psychology connections further.

One additional construct of positive psychology, hope theory, has also been studied in various contexts, including the workplace. Within a goal-setting framework, hope is defined as a cognitive set based on an individual having both the perception of a sense of successful determination in meeting past, present, and future goals (called agency), and the perceived availability of successful plans to meet those goals (called pathways) (Snyder et al., 1991). Like self-directed learning, hope has also been found to be linked, either implicitly or explicitly, to optimism, self-efficacy, self-esteem, and problem-solving, but is found to be a separate construct

(Snyder, 2000). Additionally, hope has been found to show a positive impact on job performance (Peterson & Bryon, 2008; Snyder & Feldman, 2000). Connections have also been made between hope and communication, indicating that hope-based performance communication fosters transformational performance in the workplace (Stout, Raby, & Morris, 2004). High-hope work environments allow workers some freedom to generate their own goals, and allow workers to generate their own pathways toward preset goals (Snyder & Feldman, 2000).

Although hope has shown promise for organizations, there remains a need to further expand the research on hope specifically to the workplace. While the original Hope Scale has been adapted specific to several life domains, including the domains of academics (formal education) and work life (Sympson, 1999), there is not a current hope scale specific for either workplace learning nor has hope been applied to self-directed learning.

While self-directed learning is associated with setting goals, selecting learning resources, and managing time to reach those learning goals (S. J. Confessore & Kops, 1998), hope theory is also defined as setting goals, and incorporating the motivation and waypower to achieve those goals (McDermott & Snyder, 1999). Employees who are self-directed take ownership of their learning. They see themselves as resources for diagnosing their own learning needs, translating those learning needs into performance objectives, and selecting effective strategies that demonstrate accomplishment of their performance objectives (Gilley, Eggland, & Gilley, 2002). Just as high hope people use motivation (agency/willpower) to meet their goals, highly self-directed people also use motivation to reach their learning goals. High hope people find multiple pathways (waypower) to reach their goals, especially when there are obstacles in their path, just as highly self-directed people utilize multiple resources in order to reach their learning goals.

Statement of the Problem

Self-directed learning has been widely studied, including several literature reviews, citation analyses, and content analyses (Brockett et al., 2000; Brookfield, March 1985; Canipe & Fogerson, 2004; Canipe, Fogerson, & Duffley-Renow, 2005; Conner, Carter, Dieffenderfer, & Brockett, 2009; Donaghy, Robinson, Wallace, Walker, & Brockett, 2002; Kirk, Shih, Smeltzer, Holt, & Brockett, 2012; Long & Morris, 1995; O'Shea, 2003; Owen, 2002; Stockdale, 2003). However, much of the current self-directed learning research has focused on formal and higher education. What is needed is more empirical research on self-directed learning within business and industry settings (D. Cho, 2002; Clardy, 2000; S. J. Confessore & Kops, 1998; Durr, Guglielmino, & Guglielmino, 1996; Hsu & McLean, 2007).

Pilling-Cormick (1995) conducted a review of self-directed learning instruments revealed only one instrument that was designed specifically for the workplace, the Self-Directed Learning in Training Situations Questionnaire (SDLTQ) (Burns, 1991). Since that article was published, two new self-directed learning instruments designed specifically for the workplace have emerged that show promise for workplace learning researchers and practitioners. The Survey of Adult Learning Traits (SALT) (Hogg, 2008) was developed to measure tendencies toward self-direction specific to workplace learning utilizing the Personal Responsibility Orientation (PRO) Model of Self-Direction in Learning (Brockett & Hiemstra, 1991). The Learner Self-directedness in the Workplace Scale (LSWS) (De Bruin & De Bruin, 2011) was developed to measure the cognitive process of learner self-directedness specific to the workplace, a related but different concept. However, since both scales are relatively new, they could each benefit from further

examination in order to increase their potential usefulness for researchers and practitioners in the workplace. Both of these scales are discussed in more detail in the following chapter.

Similarly, hope theory has also been studied specific to the workplace. Hope is one component of Positive Organizational Scholarship (POS), Positive Organizational Behavior (POB), and is one of the components of PsyCap (Luthans, Youssef, & Avolio, 2007), a higher order core construct of POB. Relationships have been found between hope in the workplace and employee retention, job satisfaction, performance, work happiness, leadership, and organizational commitment (Luthans, Avolio, Avey, & Norman, 2007; Peterson & Byron, 2008; Peterson & Luthans, 2003; Searle & Barbuto Jr., 2011; Youssef & Luthans, 2007). However, there is a lack of research on hope specific to the workplace and workplace learning.

Purpose of the Study

The purpose of this study was to explore the relationship between self-directed learning and hope specific to the workplace. Additionally, this study validated an author-generated scale designed to measure hope specific to the domain of workplace learning. Lastly, characteristics of the participants were also evaluated based on the results of the study. It is anticipated that the results of this study can be used as a basis for increased understanding and research on both the self directed learning activities of learners in the workplace and hope specific to learning in the workplace.

Research Questions

In order to investigate the relationship between self-directed leaning and hope specific to the workplace, this study addressed the following research questions:

1. Is the Workplace Learning Hope Scale a valid and reliable measure for hope specific to the domain of workplace learning in a sample of adult workers?
2. Is there a significant relationship between self-directed learning and hope in the workplace in a sample of adult workers?
3. Are there significant differences between self-directed learning in the workplace, learner self-directedness, workplace learning hope, the trait of hope, and selected participant characteristics in a sample of adult workers?

Conceptual Framework

The conceptual framework for this study followed the model theories of the Personal Responsibility Orientation (PRO) model and the Hope Theory. The PRO model for self-direction was developed by Brockett and Hiemstra (1991) and used as the framework for the Survey of Adult Learning Trait Scale and the Learner Self-Direction in the Workplace Scale. The Adult Hope Scale and the Domain Specific Hope Scale were developed from Hope Theory (Snyder et al., 1991). The author-generated Workplace Learning Hope Scale was developed utilizing the format used for each of the Domain Specific Hope sub-scales. The two models are explained in more detail below.

Personal Responsibility Orientation (PRO) Model

Brockett and Hiemstra (1991) developed the Personal Responsibility Orientation (PRO) Model of self-direction in adult learning, which distinguishes between the instructional process

(self-directed learning) and the internal dispositional perspective of self-direction (learner self-direction). This model begins with the notion of the learner's personal responsibility to take control of their own learning, as illustrated in Figure 1. Within the context of learning, personal responsibility refers to the individual's choice about the direction they take as learners. Self-directed learning refers to the instructional method that includes the planning, implementing, and evaluation of the learning (the process orientation). Learner self-direction (the personal orientation) refers to the internal characteristics of the learner that predispose the learner to take responsibility for their learning endeavors. Although the PRO Model has been updated to the "Person - Process- Context" (PPC) model (Hiemstra & Brockett, 2012), it is the earlier version of the model that was used as the theoretical framework for the instruments being used in this study. The PPC model will be discussed in more detail in the following chapter.

Figure 1. The "Personal Responsibility Orientation (PRO) Model". Adapted from "Self-Direction in Adult Learning: Perspectives on Theory, Research, and Practice," by R. G. Brockett, and R. Hiemstra, 1991, p. 25. Reprinted by permission.

Hope Theory

Hope is defined as a cognitive set consisting of two major, interrelated goal-directed elements: agency and pathways (Snyder et al., 1991). Agency refers to the "successful determination in meeting goals in the past, present, and future" (p. 570) while pathways refer to being able to successfully generate plans to meet those goals. The two components of hope are reciprocal, additive, and are positively related. Therefore, hope can be defined as a learned thinking pattern that relates to goal acquisition (Shorey, Snyder, Rand, Hockemeyer, & Feldman, 2002). Individuals can be hopeful about attaining goals in general (hope as a trait), goals in a certain life area (domain-specific hope), or about one goal in particular (goal-specific hope) (Lopez et al., 2004).

The Adult Hope Scale (labeled the Goals Scale or the Future Scale when administered) was developed to measure hope and consists of eight items representing the two components of hope (four each) plus four filler items (Snyder et al., 1991). The four agency items reflect one past goal determination item, two present goal determination items, and one future goal determination item. The four pathways items identify a person's cognitive appraisal of their "ability to generate means for surmounting goal-related obstacles and reaching goals" (p. 572). The Adult Hope Scale has been administered to more than 20,000 people in research and clinical settings (McDermott & Snyder, 1999). To measure an individual's level of hope, the items are rated on either a 4-point scale or an 8-point scale. The average score is 24 when a 4-point scale is used (12 points for each component) or 48 when the 8-point scale is used, although these scores represent a reasonably high level of hope. However, for participants to be considered as having high levels of hope, they must score high on both the agency and the pathways components.

The Domain Specific Hope Scale (DSHS) offers an understanding of the differential levels of hope across various life domains: Social, Academic, Family, Romance/Relationships, Work/Occupation, and Leisure Activities (Sympson, 1999). The eight agency and pathways items from the original Adult Hope Scale were modified to assess hope specific to each life domain. Another text adds three additional life domains: Personal Growth & Development, Health & Physical Fitness, and Spiritual Domains (McDermott & Snyder, 1999). These domains contain only six items each, three agency items and three pathways items, instead of eight items like the other domain specific hope scales. However, these additional life domains are not included in the overall Domain Specific Hope Scale scores. Both the Adult Hope Scale and the Domain Specific Hope Scale will be discussed in more detail in the following chapter.

Significance of the Study

Hope theory has been linked to increased multiple levels of performance within the workplace (Avey, Reichard, Luthans, & Mkatre, 2011; Peterson, Luthans, Avolio, Walumbwa, & Zhang, 2011). Hope, as one component of Psychological Capital, has also been found to have a significant positive relationship with positive employee attitudes and desirable employee behaviors (Avey et al., 2011). Hope within the domain of academics has been found to be significantly related to increased performance and hope within the domain of work has been found to be significantly related to career self-efficacy and vocational identity (Juntunen & Wettersten, 2006). However, although there is a hope scale specific for the academic domain and a work domain scale, an instrument does not currently exist that measures the level of hope specific to workplace learning. This study seeks to fill the gap in the research of hope within specific domains.

Teaching hopeful thinking in students has been found to result in not only a rise in academic and athletic performance but a rise in the student's level of hope across various aspects of life (Snyder, 2002). Therefore, it is anticipated that the results of this study can provide a foundation for further research on the relationship between teaching hopeful thinking in the workplace and workplace learning goals. Additionally, the results from this study can provide a foundation for future research on the relationship between workplace learning hope and performance in the workplace.

The SALT and the LSWS are two relatively new instruments designed to measure self-direction specific to workplace learning and are based on the PRO model of self-direction in adult learning. Since both instruments are relatively new and have not yet been used in wide variety of settings, this study will provide additional validity support for both instruments. Additional studies using both the LSWS and the SALT which correlate with other factors will increase the understanding of self-directed learning specific to the workplace.

Additionally, this study helps build new connections between two different, but related fields. The results from this study contribute to the body of knowledge in the two parent fields, adult education and positive psychology, by showing the potential for a connection between self-directed learning and hope in the workplace. This research extends self-directed learning theory by looking at another positive psychology concept, hope, which has not been explored by self-directed learning researchers. Both self-directed learning and hope utilize skills that are also stated by the other area. For example, both self-directed learning and hope requires the individual to establish goals, maintain motivation, and persevere to reach that goal in spite of obstacles.

Assumptions

It is assumed in this study that:

1. Participants in the study will complete the instruments to the best of their ability and will answer truthfully and thoughtfully underlie this study.
2. The sample will be representative of the population of interest in this study.
3. All the instruments used in this study are accurate and valid instruments.
4. The researcher used a fair method to administer the instruments.

Delimitations

The following delimitations are noted for this study:

1. The sample will be a convenience sample of working adults from one private, faith-based university and, as such, the results may not be generalizable to other populations.
2. The instruments are self report assessments and, as such, may be subject to social desirability bias.

Limitations

The study includes the following limitations:

1. Although the study includes the use of two different scales to measure self-directed learning, the instruments are relatively new scales and have not yet been subjected to a number of studies.
2. A single private, non-denominational Christian university was used for this study and therefore the results may not be generalizable to all working adults.

3. The overall sample response rate (23.17%), especially for student work-study workers (7.38%), was not high.

Definition of Terms

The following definitions are operationalized for this study:

Agency: A sense of successful determination in relation to the person's past, present, and future goals (Snyder et al., 1991).

Hope: "An individuals' perceptions of their capacity to (1) clearly conceptualize goals; (2) develop the specific strategies to reach those goals (pathways thinking); and (3) initiate and sustain the motivation for using those strategies (agency thinking)" (Lopez et al., 2004, p. 388).

Learner self-directedness: An internal disposition of the learner that motivates them to take responsibility for their own learning (Brockett & Hiemstra, 1991; De Bruin & De Bruin, 2011).

Pathways: "A person's cognitive appraisals of their ability to generate means for surmounting goal-related obstacles and reaching goals" (Snyder et al., 1991, p. 572).

Self-directed learning: "The process in which individuals take the lead in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (as cited in Gilley et al., 2002, p. 35). This definition implies a process perspective.

Self-direction in learning: One theory of self-directed learning that distinguishes between the instructional process (self-directed learning) and the internal dispositional perspective of self-direction (learner self-direction) (Brockett & Hiemstra, 1991).

Conclusion

Both self-direction in adult learning and hope theory have both been extensively studied in various contexts. However, the introduction of several new self-directed learning instruments designed specifically for use within the workplace show promise for new research that will be important for researchers and practitioners of workplace learning. Similarly, a new hope theory scale designed specifically for workplace learning would add another element to the current research. While there has been some research linking positive psychology to self-directed learning, there currently has not been a study linking the positive psychology theory of hope to self-directed learning. Additionally, no research could be found linking hope theory specific to workplace learning or to self-directed learning in the workplace. This study seeks to address those research gaps.

Outline of the Study

Chapter 1 presented the statement of the problem, the purpose of the study, the significance of the study, assumptions, limitations, definitions, and the outline of the study. Chapter 2 will provide a review of the literature on self-directed learning in the workplace, including a review of the current instruments used to measure self direction. A review of the literature on hope theory will also be provided. Chapter 3 introduces the population and sample, instrumentation, procedure, and data analysis of the study. Chapter 4 will provide the results of

the study. Finally, Chapter 5 will discuss the findings, implications, and suggestions for future research.

Chapter 2

Review of the Literature

The previous chapter provided an introduction to the study including a statement of the problem, its purpose and significance, the conceptual framework, limitations and delimitations to the study, and outline for the study. This chapter will first examine the literature on self-directed learning in the workplace, including a review of the current instruments used to measure self-direction. Next, a review of the literature on hope theory will be provided.

Self-Directed Learning in the Workplace

Education and training are a major expense for most organizations. The American Society of Training and Development's (ASTD) annual State of the Industry report found that U.S. organizations spent $164.2 billion on workforce training in 2012, an increase in spending from the previous year (Miller, 2013). Self-directed learning projects can be an efficient and effective training and development alternative for organizations. Self-directed learning techniques can provide learning opportunities that are more focused to the particular needs of the individual and offer more scheduling flexibility, which makes updating skills and knowledge easier and makes for a more reasonable distribution of training dollars to a larger variety of employees, and as a result can reduce the training costs to organizations (Durr, 1995; P. J. Guglielmino & Murdick, 1997, Summer; Knowles, 1990; Merriam, 1993, Spring; Piskurich, 1993). Additionally, employees who are self-directed take ownership of their learning. They see themselves as resources for diagnosing their own learning needs, translate those learning needs into performance objectives, and select effective strategies that demonstrate accomplishment of their performance objectives (Gilley et al., 2002).

For many organizations, training resources are becoming more limited. That will require less of a focus on formal training programs and more reliance on self-directed learning. For sales training, the American Society of Training and Development's (ASTD) survey of training professionals reported that the overwhelming majority (89.5%) of the respondents indicated that they use "self-directed learning, on my own" as the learning method they utilized in order to stay ahead of their competition, customers, and peers compared to 48.8% who used coaching (typically by the sales manager), and 43.9% who attended a class (Green & McGill, 2011). Other informal learning methods included in the survey were searching the internet (70.9%), observing peers (71.6%), discussions with others (75.8%), and reading (76.8%). It was not specifically noted what was referred to by the term "self-directed learning, on my own" to differentiate it from the other informal learning methods listed which the employee may have been also initiated on their own. Some informal learning methods are considered by others to also be elements of self-directed learning (Manz & Manz, 1991b).

Today, organizations require a more educated, responsible and flexible work force that is composed of employees who can direct their own life-long learning. Dejoy and Dejoy (1987) propose that the key to successful workplace training is to give adults responsibility for their own learning and allow them to function somewhat autonomously. Peters and Waterman (1982) found companies that were identified as 'excellent' had employees who were encouraged to learn and experiment on their own. Clardy (2000) found that, for the sample studied, only two out of the 56 participants from five different organizations reported that they undertook work related self-directed learning projects as a result of performance evaluations and none reported that Human Resource policies and practices played into their decision to pursue these learning

projects. However, employee interest in self-directed learning projects can be increased by the establishment of learning goals, having easily accessible information, and being held accountable for the information by serving as the expert on that topic.

P. J. Guglielmino and Murdick (1997, Summer) state that companies using SDL techniques have seen a savings of 20-50% of their formal training and development expenses. Additionally, the authors suggest that as self-directed learning skills are developed, employees are “more self-confident and more apt to solve problems on their own” (par. 6). Using the SDLRS, Motorola evaluated employees for self-directed learning readiness, and then implemented an organization-wide self-directed learning program (Durr, 1995) in 1994 at their Boynton Beach, Florida location that included orienting the learner to self-directed learning through a live presentation and a 18-page “Learning and Development Process Guide” through which an individualized learning plan was developed. Motorola showed a significant cost savings after implementation of self-directed learning strategies (up to 18% after the one-year break-even), with a larger percentage of employees (50%) participating in self-study courses. The development of the individualized learning plan, along with the guide showing the various training resources available to complete the learning plan, could have contributed to the increase in self-study courses and the subsequent cost savings.

Another study at Motorola (Durr et al., 1996) conducted in 1991-1992 found differences in self-directed learning readiness scores based on occupational category, as evidenced by the SDLRS. Managers, especially sales managers, scored significantly above the rest of the sample population, with manufacturing/factory employees (although a small sample) and clerical/administration employees scoring the lowest of those sampled, although their scores

were still above the adult mean score. The authors suggest organizations provide the opportunity for those employees who score lower in self-directed learning readiness to learn self-directed learning skills. It was noted that the occupations where the employees scored higher were those with skills that were more closely characteristic of self-directed learning skills. De Bruin and De Bruin (2011) also cautioned that there would be very little need to survey those who already score high in self-direction, such as those surveyed at Motorola on the SDLRS. P. J. Guglielmino, L. M. Guglielmino, and Long (1987) found no significant differences for managers versus non-managers, and no significant difference was found with respect to race. Females scored significantly higher than males, a positive association was found for higher levels of education, and only respondents in the 46-55 age group showed any significant difference (lower) with respect to age.

There can be problems with work-related learning being self-directed instead of governed by the organization. Organizations have goals that must be accomplished regardless of the employees' desires and some workplace learning is mandated by regulations and organizational needs. While the goal of work-related self-directed learning may be for employees to take ownership of their learning and application, in reality, that goal may be difficult for organizations to implement. According to Laff (2008), Organizational Concepts predicted that organizations will still direct workplace learning for the next five years. However, the use of a learning plan developed in conjunction with the employee's manager can maintain the needs of the organization while still fostering some autonomy and self-direction for the learner. The challenge may come because many organizations may not have fully developed learning "pathways" to assist the manager and their employee in developing a fully-functional learning plan. As more

and more employees are finding that vertical career moves might not be possible or even desirable, the use of a self-directed learning path for career development becomes even more important. Valspar (Laff, 2008) developed a “development resource guide” to aid employees on resources available for either improving their skills in their current position or to prepare for a current position. However, other organizations that have attempted to replicate the guide have only had limited success.

While the study of self-directed learning continues to be an important concept in the field of adult learning, there has not been as much recent research interest within the context of self-directed learning in the workplace learning publications. A recent citation analysis of the literature showed that there were only ten self-directed learning articles published in one of the major human resource development journals (*Human Resource Development Quarterly - HRDQ*) from 1980 through 2008 with only five of those articles being referenced by another primary article (Conner et al., 2009). The other human resource development journals studied, *Advances in Developing Human Resources* (a topic-only Academy of Human Resource Development journal) only published one self-directed learning article and *T&D* (a professional journal of the American Society of Training and Development) only published two articles. A subsequent review of the same Academy of Human Resource Development (AHRD) journals from 2008 through the present found no further articles on self-directed learning in either *Advances in Developing Human Resources* or *HRDQ*. Although mentioned in several articles, a review of the additional AHRD journals, *Human Resource Development International* (1998-2012) and *Human Resource Development Review* (2002-2012), only revealed four articles that were published specifically on self-directed learning:three3 in *Human Resource Development*

International (Park & Kwon, 2004; Shinkareva & Benson, 2007; Straka, 2000) and one in *Human Resource Development Review* (Nesbit, 2012). Incidentally, one of those articles (Shinkareva & Benson, 2007) was not even related to self-directed learning in the workplace but instead researched continuing education students. Within the *International Journal of Self-directed Learning*, only six articles have been published on self-directed learning within the workplace; one in 2004, two in 2006, one in 2008, one in 2009 and one in 2010 (Chuprina & Durr, 2006; Johnson, 2006; Kops & Pilling-Cormick, 2004; Liddell, 2008; Oliveira, Silva, Guglielmino, & Guglielmino, 2010; Zsiga, Liddell, & Muller, 2009). A further review that also includes other lesser known workplace learning journals would provide additional information concerning research in the field but it appears that self-directed learning within the context of the workplace environment has not been the subject of recent research interest.

SDL Challenges in the Workplace

One challenge with SDL research in the workplace may lie with confusion about the concept of "self-directed learning" (Oddi, 1987). The term "self-directed learning" has been used to describe a number of different concepts within the training and development field. Piskurich (1996) viewed self-directed learning as the "basis for concepts such as self-directed work teams and learning organizations" (p. 453) while Baskett (1993a) cautioned that "self-directed learning can be mistakenly viewed as being synonymous with self-directed work teams" (p. 2-3). In a study using the Appreciative Inquiry method, the steering committee allowed participants to determine their own definition of self-directed learning in the workplace. The participants determined that for them, self-directed learning in the workplace was learning that was "primarily individually initiated and individually managed" (Baskett, 1993b, p. 18). Knowles

defines self-directed learning in general as the "process in which individuals take the lead in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (as cited in Gilley et al., 2002, p. 35). This definition would also be applicable to self-directed learning within the workplace. However, Mocker and Spear (1982) differentiate between formal learning, nonformal learning, informal learning, and self-directed learning based on the institutions' or learners' control over the means (how) and the institutions' or learners' control over the objectives (what) of the learning. With formal learning, the learner has no control over the objectives or the means of what is learned; with nonformal learning, the learner has control over the objective but not the means; and with informal learning, the learner has control over the means but not the objectives. However, with self-directed learning, the learner has control over both the objectives and the means.

As an instructional design, self-directed learning is "training design in which trainees work at their own pace, without the aid of an instructor, to master predetermined material" (Piskurich, 1996, p. 457). This definition implies that an instructor is not only not needed but also not desired. It also states that the trainee does not have a choice about the material that they work with. Piskurich suggests that in the business environment, the organization should responsible for choosing the material to be learned instead of the learner. The words "training design" also imply that self-directed learning is one of many training designs that organizations can utilize, including stand-up instruction. However, the trainee identifying stand-up instruction as one way to meet their learning goal would not be considered as utilizing a self-directed learning approach according to Piskurich's definition. Tobin (2000) differentiates between self-

directed learning that is independent (like Piskurich's definition) and self-directed learning that is "other-directed," in which the employee selects the learning topics but the organization determines the learning method, material, and schedule. Although there may be legal or regulatory requirements that make independent, self-directed learning not always possible for some topics, what is important is that organizations allow as much flexibility as possible for the employee to determine their own learning needs, methods, and schedules while keeping the organization's goals in mind.

However, Brockett and Hiemstra (1991) contend that *self-direction in learning* better describes the construct of SDL. Self-direction in learning is comprised of both the instructional method process (self-directed learning) as well as the personality characteristics of the learner (learner self-direction). Their Personal Responsibility Orientation (PRO) model of self-direction in adult learning represents the differences and similarities between the two dimensions and is discussed in more detail later in this chapter (see Figure 1 in Chapter 1).

There are advantages and disadvantages for both the individual and the organization for utilizing self-directed learning. For the organization, self-directed learning can be advantageous if the organization needs multiple-site training, it makes training for different shifts easier, and allows the organization to utilize training during downtime and eliminate training during busy times. Compared to instructor-led training, self-directed learning requires fewer trainers, reduces trainer travel costs, eliminates trainee travel costs, and reduces meeting room costs. However, self-directed learning may create possible logistics problems. Additionally production, reproduction, distribution and revision costs may be higher than for traditional training methods.

If the content is affective or performance based, a self-directed learning orientation may also make evaluation more difficult.

For the individual, self-directed learning is available whenever trainees are, allows the trainees to work at their own pace, gives them immediate feedback, and provides an opportunity for review and reference. However, some trainees may not be comfortable with being a self-directed learner and relying on objectives. And one of the biggest obstacles for the individual utilizing self-directed learning is the lack of synergy that comes from working with a group instead of working alone (Piskurich, 1993, 1996).

Like the Pilling-Cormick (1997) suggestions for transformative and self-directed learning classroom environment characteristics, Manz and Manz (1991b) also suggest that an environment that empowers learners by strengthening self-directional skills and self-efficacy perceptions can enhance future learning and performance. The authors' suggestions are: enabling a successful experience; providing constructive, credible models; establishing a nonthreatening learning environment; and providing constructive influence. J. P. Campbell (1991) not only agrees with Manz and Manz that human resource development can be increased by an increase in the capacity for self-directed learning but goes on to state that the need is much more serious than the authors suggest. The gap between training needs and training resources continues to increase and Campbell argues that the gap will only continue to grow to "dangerous proportions" (p. 15). Campbell also raises some interesting questions that Manz and Manz did not address, such as who should take the responsibility for implementation of the strategies that the authors suggest and what would the actual procedures look like in practice. Spitzer (1991) also agrees with Manz and Manz' and Campbell's assessment of the need for self-directed learning within

the workplace to satisfy the training needs of the organization but argues that organizational needs may not be met with self-directed learning unless the environment is conducive to SDL.

In order for SDL to be effective within an organizational environment, Spitzer argues that several factors must first be in place. First, although clearly defined learner expectations are important for all training and development, it is especially important for self-directed learning. Spitzer also agrees with Manz and Manz and Campbell that the more emotionally mature and higher intelligent individual will find self-directed learning easier but he considers SDL to be a continuum; all learners with the proper support and guidance will have some capacity for self-directed learning. Next, it will be important the self-directed learners have clearly stated prerequisite skills. Although Manz and Manz particularly mention self-leadership as one major prerequisite skill, Spitzer suggests that it is more important that self-directed learners also have "learning to learn" skills. Spitzer also suggests that perception of self-efficacy is critical for successful self-directed learning. However, a lack of prerequisite skills should not exclude a learner from SDL but the learner should be encouraged to be gradually phased into SDL. The other conditions for successful self-directed learning that Spitzer suggests are also conditions for any organizational learning to be successful. These include instructional design that maximizes the probably of success, having access to wide range of potential learning resources, providing objective based performance feedback, and providing a nonthreatening, supportive environment. Lastly, all organizational learning, including self-directed learning, should be job relevant. Manz and Manz (1991a) agreed with Campbell's response that more research specific for organizational development is needed in order to apply SDL principles in organizations.

Knowles (1991) fantasizes about a learner-centered organization that employs the suggestions of Manz and Manz and Campbell. Knowles' idealized organization includes employees having mentors, not only at orientation but throughout their career; having an orientation program that includes assessing learning needs, identifying appropriate resources, and developing learning goals, preferably in the learning resource center; and finally having a supervisor that was equally vested in the development of his people and provided with a support group to help aid in the process.

Self-Directed Learning Instruments

One challenge for organizations is to find a way to first assess the current level of self-directed learning behavior of their employees and then create an environment that increases motivation of the less self-directed employees in the development of self-directed learning skills. However the availability of an instrument specifically applicable to the workplace, that is not just a modification of an existing instrument, remains a challenge. Much of the self-directed learning research revolves around two instruments: the Self-Directed Learning Readiness Scale (SDLRS) and the Oddi Continuing Learning Inventory (OCLI). However, both the SDLRS and the OCLI were not developed specifically for the workplace and therefore may not be applicable to the workplace setting. The lack of a dependable instrument specifically designed for the workplace severely limits the practical assessment of self-directed learning in workplace training situations.

SDLRS

By far, the most widely used instrument to measure self-directed learning is the Self-Directed Learning Readiness Scale (SDLRS) developed by Lucy Guglielmino in 1977 (Long & Agyekum, 1983). The original instrument yielded eight factors: love of learning; self-concept as

an effective learner; tolerance of risk, ambiguity, and complexity in learning; creativity; view of learning as a lifelong, beneficial process; initiative in learning; self-understanding; and acceptance of responsibility for one's own learning. After pilot testing and revision, the instrument was administered to high school students, college undergraduate and graduate students, and a few adults attending non-credit continuing education courses for validation with a reliability coefficient of .87. The 58-item instrument uses a 5-point Likert scale and contains 41 positively phrased items and 17 negatively phrased items (Maltby, Lewis, & Hill, 2000). Self-directed readiness is assessed as a total score converted into "high", "above average", "average", "below average", or "low" levels of readiness.

The SDLRS has been translated into 21 different languages and has been used for research in 40 countries. It has been used in hundreds of studies and has been found to be significantly positively correlated with other psychological constructs such as Dominance, Capacity for Status, Social Presence, Empathy, Independence, Masculinity, Sociability, Self-acceptance, Good Impression, Well-being, Intellectual Efficiency, Psychological Mindedness, and Flexibility with management level employees (Kitson, Lekan, & Guglielmino, 1995) and creativity with manufacturing employees (Beswick, Chuprina, Canipe, & Cox, 2002). A significant positive correlation has also been found with learning projects undertaken and hours spent on self-directed learning (Hall-Johnsen (1981), Hassan (1981), & Graeve (1987) as cited in Maltby et al., 2000).

SDLRS criticisms. While the SDLRS has been widely used, there has been considerable controversy surrounding the SDLRS that may limit its use in the workplace. Even Guglielmino (L. M. Guglielmino, Long, & McCune, 1989) admits that the SDLRS "may not be the perfect

measurement tool" (p. 240) but that "it is the best that we have" (p. 240). Field (1989) contends that a revised version of the original SDLRS is the version currently being used, which consists of an additional 17 items from the original, for a total of 58 Likert-type items. Only 23 items of the revised version items are word-for-word original items. L. M. Guglielmino et al. (1989) asserts that the additional items were included after the field test but were used for the initial validation study and a new factor analysis conducted. However, factor titles for the 41-item scale was used in the published documents instead of the correct revised factor titles for the 58-item scale which are listed only in unpublished documents. Unfortunately, it is the published (incorrect) factor titles that subsequent researchers are referencing.

Another criticism with the SDLRS is the structure of the eight factors. Field (1989, 1990) asserts that the SDLRS represents a single construct rather than eight factors and even cites L. M. Guglielmino's own research to further validate his claim. Further, West and Bentley (1989, as cited in Field, 1990) also found that the factors of the SDLRS to be highly related. Additionally, J. D. Hoban, Lawson, Mazmanizn, Best, and Seibel (2005) found that for the two samples of medical students they studied, the SDLRS did not measure the characteristics that L. M. Guglielmino associated with self-directed learning. Instead they found four factors: learning is a tool for life; self-confidence in abilities and skills for learning; responsibility for own learning; and curiosity.

Long and Agyekum (1983) attempted to validate the SDLRS with college students. They found a significant difference in SDLRS scores with respect to race, no significant correlation between faculty ratings and student's SDLRS scores, and a positive relationship between age and education with SDLRS scores. The most difficult finding from this study was the lack of a

relationship between faculty ratings and SDLRS scores. One explanation could be that the SDLRS does not measure self-direction. The authors' explanation is that the SDLRS is a valid measure of self-direction and that the inconsistency in faculty ratings and student's scores are a factor of the role and function of the rater and not a factor of problems with the scale.

SDLRS in the workplace. Within the workplace, the SDLRS was administered to 753 employees in a variety of occupations within a utility company to determine the relationship between performance and self-directed readiness (P. J. Guglielmino et al., 1987). Specifically, the relationship was examined between self-directed readiness and job performance, level of management, sex, educational level, age distribution, and race. The group for this study scored higher than the norming group as a whole. No significant differences were found for managers versus non-managers. Females scored significantly higher than males; no significant difference was found with respect to race; a positive association was found for higher levels of education; and only respondents in the 46-55 age group showed any significant difference (lower) with respect to age. There was a positive relationship between self-directed readiness and job performance as indicated by ratings on the participant's last performance appraisal. Those participants with performance appraisal rankings of outstanding or more than satisfactory scored higher on the SDLRS than those with a satisfactory performance appraisal rating. Those outstanding performers who reported that their jobs required a high level of problem-solving, creativity, or change also reported significantly higher levels of self-directed learning readiness. There was a small negative association between SDLRS scores and the level of routine work. The authors suggested that organizations whose employees ranked higher in self-directed learning readiness should consider utilizing a learning resource center and offering more self-

directed learning options instead of the typical group training programs. The other suggestion was that organizations use the SDLRS as part of the selection process for those positions that require a high level of creativity, problem-solving, and/or change. However, no studies to date have been found where that suggestion was utilized to determine if the SDLRS is a valid instrument to use for selection.

OCLI

Another frequently used instrument to measure self-directed learning is the Oddi Continuing Learning Inventory (OCLI)(Oddi, 1984). The participants in the initial study were adult graduate students in several different departments within the same university. The final instrument, after pilot testing and revision, contains 24-items with a standardized coefficient alpha of .875. A retest was administered to 34 of the 271 initial participants two weeks after the initial data collection. The correlation coefficient for the test/retest analysis was .893 indicating satisfactory reliability for the 24-item instrument. The results identified three components: proactive drive/reactive drive; commitment to learning/apathy or aversion to learning; and cognitive openness/defensiveness. Although not written specifically for the workplace, several items were written so that they would also be applicable to a workplace setting: “I’m not comfortable with my performance on an assignment until my supervisor, teacher, or colleague says it’s acceptable”; “I resist judging others (such as new managers or teachers) until I’ve had an opportunity to associate with them”; “I seek involvement with others in school or work projects”.

More than 20 years after its development, Harvey, Rothman, and Frecker (2006) sought to further review other SDL theories for comparison to the underlying dimensions of the OCLI.

They found the OCLI could be better explained by four factors instead of the three initially identified by Oddi (1984). In a study of undergraduate medical students at the University of Toronto, a four-factor model was identified consisting of the following dimensions: Learning with others; Learner motivation/self-efficacy/autonomy; Ability to be self-regulating; and Reading avidity (Harvey et al., 2006). The authors suggest that the four factors identified provide a better fit and provides better understanding with the inclusion of the "learning with others" dimension. Oddi et al. (1990) further sought to refine the OCLI by investigating nursing practitioners as opposed to students used in the initial study. They found that the mean for the original study of students corresponded with the mean from the current study of practitioners. Criticisms were also raised by Six and Hiemstra (1987) who concluded that the "OCLI is not a predictive measure of self-directed learning behavior in the classroom" (p. 237).

Other Instruments

Although showing promise for furthering the research on self-directed learning, other instruments such as the Learner Autonomy Profile (LAP) (G. J. Confessore & Park, 2004; S. J. Confessore & Confessore, 1994), the Appraisal of Learner Autonomy (ALA) (Ponton, Derrick, Hall, Rhea, & Carr, 2005), and the Personal Responsibility Orientation to Self-Directed Learning Scale (PRO-SDL) (Stockdale, 2003; Stockdale & Brockett, 2011) are also not specifically designed for the workplace and therefore may not be applicable to self-directed learning in the workplace. As Brockett (2000, 2009) asserts, there is a need for other measures of self-direction targeted for different contexts. It appears this is especially true for the assessment of self-directed learning specifically in the workplace.

Self-Directed Learning in Training Situations Questionnaire. Pilling-Cormick (1995) identified seventeen instruments developed to assess self-directed learning with only the Self-Directed Learning in Training Situations Questionnaire (Burns, 1991) being associated with use specifically within a business environment. Approximately 200 sales training professionals in US and Canadian companies were surveyed to rank the most useful and most important self-directed learning characteristics for acquiring and applying knowledge in both job and training situations (Burns, 1991, 1995; Hiemstra & Burns, 1997). The participants reached a high level of consensus for 19 of the 43 items for helpfulness with all items except the item "searches for information to solve problems" also ranked as most important for self-directed learning. A six factor workplace self-directed learning structure was established from the results: Charismatic Organizational Player, Responsible Consumption, Feedback and Reflection, Seeking and Applying, Assertive Listening, and Dependent Information Gathering. Demographic information on nine variables (age, experience, number of employees trained, number of salespeople trained, number of employees supervised, gender, education, job and organization) was collected but none of the demographic variables were found to have a significant relationship with any of the six factors of the scale.

The six factors were further found to be linked to either a learning attitude or a problem-solving orientation (Hiemstra & Burns, 1997). A learning attitude consists of the Charismatic Organizational Player, Responsible Consumption, and Assertive Learning factors while Seeking and Applying, Responsible Consumption, and Information Gathering factors related to the problem-solving orientation. Learning attitude looks at the degree to which learners either prefer to learn independently or with the help of others: an Independent or Self Oriented Learner or an

Other Oriented Learner. Problem-Solving orientation looks at the whether a learner is an Independently Oriented Problem Solver or an Interdependently Oriented Problem Solver. Four patterns from the two orientations emerged: Seekers, Performers, Participators, and Supporters. Seekers and Performers were found to be self-directed and independent, while Participators and Supporters were found to be other-directed and interdependent. Using these results, the 24-item "Change Styles Questionnaire" was developed to assess self-directedness and problem solving preference and was distributed to participants at the First World Conference on Self-Directed Learning in Montreal after pilot testing and modification. The data was to be collected and used to inform trainers to understand how self-directed learning and problem-solving preferences impact performance. However, Hiemstra confirmed that no subsequent data was published on the results nor any future use of this questionnaire (personal communication, March 14, 2014).

Self-Directed Learning Perception Scale (SDLPS). Another lesser known scale is the Self-Directed Learning Perception Scale (SDLPS) developed by Pilling-Cormick (1997) for educators to foster both transformative and self-directed learning. The Self-Directed Process Model, upon which the scale is based, is comprised of three components: the control factor, interaction between the educator and student, and the factors that influence the student-educator interaction. The SDLPS Profile further identifies the details on how respondents answered the SDLPS and explains not only the composite SDLPS score but also provides practical application guidelines for users (Pilling-Cormick, 2000). The SDLPS composite scores include the institutional characteristics, learning site characteristics, looks at how the institution functions and how the learning activity functions, and shows how supportive the climate is for building relationships. The composite scores then aid the user to discover those characteristics that are

supportive within each component as well as those that may need further development. The suggestions help the user to understand the characteristics of a successful SDL learning activity, discover if key characteristics exist, increase the fit of the learning activities to the learners, integrate learner feedback, develop a detailed action plan, and develop cost-effective solutions.

Pilling-Cormick and Kops (2000b) further surveyed senior HR managers in member organizations of an association of human resource professionals to identify those with a SDL approach to training using a version of the SDLPS developed specifically for use of this study - the training version of the Self-Directed Learning Perception Scale (SDLPS-T). Of the 179 organizations surveyed, 90 were returned and usable resulting in 23 organizations indicating they had environments that were highly supportive of SDL. The focus of this version is to identify the "physical and affective conditions specific to training that influence training activities" (Pilling-Cormick & Kops, 2000a, p. 210). Learners in the organizations that HR managers identified as being highly supportive of SDL also reported moderate or high SDLPS-T composite scores. The SDLPS-T composite score is broken down into five component profile scores: organizational characteristics, training site characteristics, way the organization functions, way the training activity functions, and the climate for building relationships.

Bartlett-Kotrlik Inventory of Self Learning (BISL). Bartlett and Kotrlik (1999) also developed a self-directed learning scale specifically for use in the workplace, the Bartlett-Kotrlik Inventory of Self Learning (BISL). After three pilot tests, the final instrument contained 55 items that are structured by the constructs of personal, social, and environmental dimensions, resulting in 11 factors: performance and self-efficacy of work, peer learning, supportive workplace, attitude toward technology, time management, others performance rating, extrinsic motivation,

goal setting, external support, help seeking, and internal motivation. Using a sample of high school business teachers, the results indicated that all factors, except time management and extrinsic motivation, were positively correlated with each other. Unlike previous instruments, the authors included social and environmental variables to provide a more holistic assessment of self-directed learning in a natural workplace setting and thus strengthening their instrument. The minimum score for the final pilot study was 24.27; maximum score was 74.60; mean was 58.96; and the standard deviation was 6.81. This suggests that the business educators studied are moderately strong self-directed learners. The authors suggest that this instrument can be used to assess self-directed learning in the workplace and also can be used to assess self-directed learning in the development of training and learning activities. They also suggested the BISL be compared to the SDLRS and the OCLI. This instrument shows promise as one of the most inclusive instruments specifically designed for workplace settings. However, no subsequent data could be found on further use of this instrument except a reliability and validation study in Korea with undergraduate students (I. J. Cho, Ellinger, & Hezlett, 2005, 2006) and a study with students and completion of community college online courses (Aragon & Johnson, 2008), neither of which were completed within the workplace.

Motivated Self-Directed Learning in Business (MOSLIB) Self-Rating Questionnaire. Straka (2009) views self-directed learning as a "dynamic interplay among behavior, information, motivation, and emotion under the experienced control of the learner" (p. 110). Behavior refers to learning strategies as well as control strategies; motivation is modeled after the concept of *interest* in Krapp (1999); and the emotions of *joy*, *irritation*, and *boredom* found in learning situations. Two-hundred ninety-five business administrative employees from small and medium-

sized businesses in Germany were administered the Motivated Self-Directed Learning in Business (MOSLIB) Self-Rating Questionnaire. The results indicated that self-directed learning will take place if the learner has "contentual and procedural interests associated with the motivation dimension, is using learning (organizing, sequencing, acquiring) and control strategies (metacognitions) associated with the behavior dimension, and is driven by joy – not irritation or boredom – as per the emotion dimension" (p. 118).

Survey of Adult Learning Traits (SALT)

More recently, Hogg (2008) developed an instrument to measure tendencies toward self-directed learning in the workplace, the Survey of Adult Learning Traits (SALT). The self-directed construct in this instrument is based on the Personal Responsibility Orientation (PRO) Model of self-direction in adult learning (Brockett & Hiemstra, 1991) and addressed self-regulation, motivation, cognitive factors, and the social and environmental setting. The instrument was initially field tested with a representative sample from a manufacturing facility, and later validated within the same manufacturing facility. The final instrument was administered to over 200 employees and consisted of 14 items designed to "measure the impact of a person's ability to be self-directed toward learning new skills, gaining knowledge, and developing an understanding and application of the gained knowledge" (p. 62). The items were divided into three domains: Motivation and Self-Regulation, Cognitive Elements, and Social/Environment and found to be a valid and reliable measure for all domains.

R. S. Campbell (2011) further used the SALT within the information technology department at a higher education institution looking at employee position, position type, and education level in relation to the results of the SALT. No significant differences were found

between either position or position type for any of the three domains in this study. A small effect was found between education level and the Motivation and Self-Regulation domains but only for those participants with graduate degrees.

Learner Self-Directedness in the Workplace Scale (LSWS)

De Bruin and De Bruin (2011) also recently developed a self-directed learning scale designed specifically for the workplace, the Learner Self-Directedness in the Workplace Scale (LSWS). While acknowledging the role of external factors, the researchers focused on learner self-directedness in their study. This instrument considered learner self-directedness as the responsibility a learner takes for their own learning, an internal dispositional perspective of self-direction. From a review of the literature, the 22-item survey was constructed that reflected the activities that would indicate self-directed learning. The concept of self-directedness was treated as a single construct in the instrument in this study with 519 participants. Participants included individuals who the first author contacted directly as well as working adults who students in the first author's Career Psychology course. For analysis, the participants were split in a calibration group (n = 261) and a calibration group (n = 258). Using the Rasch rating scale analysis, the results of this study suggested that a reduced 13-item scale defined a single dimension which is capable of discriminating between varying levels of self-direction.

The results of this study also indicated that this instrument provided an accurate measure for those individuals who were lower in learner self-directedness rather than for those who considered themselves already to be highly self-directed. The authors did not see this as a problem because the scale should be used to determine which individuals were lower in self-directedness and then used to measure their self-directedness growth. The authors contend that

there would be little need to measure growth in those individuals who already display higher levels of learner self-directedness.

There were several limitations to this study. The authors concede that this study only considered the internal construct validity of the instrument and did not focus on the predictive validity of the instrument or the discriminant or convergent validities. It is also important to note that the results of this instrument may be unique to the South African context in which it was administered and may not be generalizable to other contexts. Nevertheless, this instrument shows promise for the evaluation of learner self-directedness in the workplace and should be validated in other workplace settings especially where self-direction might be low.

Personal Responsibility Orientation (PRO) Model

The Personal Responsibility Orientation (PRO) model for self-direction was developed by Brockett and Hiemstra (1991) and used as the framework for the Survey of Adult Learning Trait Scale and the Learner Self-Direction in the Workplace Scale. Brockett and Hiemstra (1991) contend that self-direction in learning is comprised of two separate but related constructs, self-directed learning and learner self-direction. Self-directed learning consists of the process of the learner taking responsibility for the planning, implementing, and evaluating the learning process. The learner self-direction dimension consists of the "learner's desire or preference for assuming responsibility for learning" (p. 24). Therefore, the authors assert that the term "self-direction in learning" better describes the process, incorporating both instructional method process and the personality characteristics of the learner as illustrated in Figure 1 in Chapter 1.

The PRO model begins with the cornerstone of personal responsibility. This refers to learner taking ownership for their own learning. However, it does not refer to the control the

individual has over their circumstances or the environment. The process orientation of self-direction in learning, or self-directed learning, refers to the characteristics of the teaching-learning interaction. The factors external to the individual fall within this domain. Most of the seminal research has focused on this orientation to self-directed learning. However, the concept of the personal orientation of the learner, or learner self-direction, is also an important dimension of SDL. Learner self-direction refers to those characteristics of the learner that predispose them to take responsibility of their learning endeavors. Finally, the social context in which the learning takes place is emphasized, represented by a circle that encompasses all the other elements.

Person, Process, Context (PPC) Model

After more than two decades, the authors of the PRO Model of self-direction in adult learning updated their model to incorporate the authors' new understanding of SDL and the relationships among the elements of the original model (Hiemstra & Brockett, 2012). Although there have been some criticisms of the earlier model (Flannery, 1993, Winter; Garrison, 1997), the PPC model instead reconfigures and updates the PRO model to reflect the authors' attempt to clarify some of the language that may have led to confusion, and is illustrated in Figure 2.

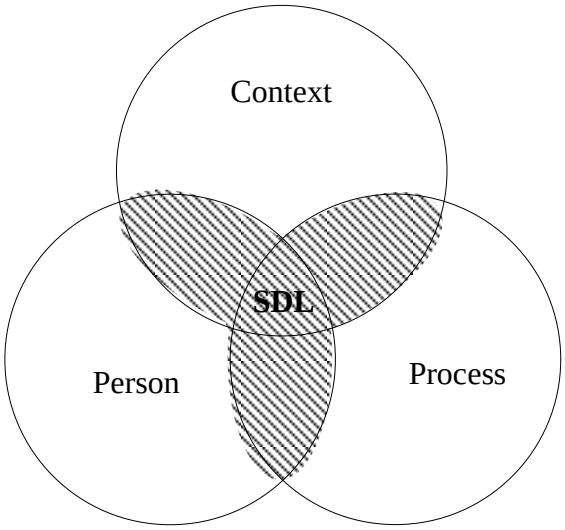

Figure 2. The "Person, Process, Context" (PPC) Model. Adapted from “Reframing the Meaning of Self-Directed Learning: An Updated Model,” by R. Brockett and R. Hiemstra, 2012, p.158. Reprinted with permission.

Like the earlier model, the PPC model also incorporates the three SDL elements of person, process, and context. The person element includes the individual’s characteristics (formerly called “learner self-direction”); the process element involves the teaching-learning transaction (formerly called “self-directed learning”); and the context element includes the factors within the social context. In the updated version, the context element is treated with equal importance as the person and process elements. Although some situations may require one element to receive more attention than the others, the authors’ contend that the optimal situation for self-directed learning occurs when all three elements are in balance. The learning environment and climate has more of a focal point in understanding SDL and provides the

potential direction for future research. The intersection of the personal and contextual elements holds the greatest potential for research.

Hope

Hope is one construct found within the field of positive psychology. Snyder defines hope as "a cognitive set that is based on a reciprocally-derived sense of successful agency (goal-directed determination) and pathways (planning to meet goals)" (Snyder et al., 1991, p. 571). Therefore, hope can be defined as consisting of goals, agency, and pathways.

Goals, Agency, and Pathways

Goals are the cognitive anchor of hopeful thinking. Within Hope Theory there are two major types of goals: positive "approach" goals and negative "avoidance" goals (Snyder, Cheavens, & Michael, 2005). There are three subtypes of positive approach goals: goals that are reached for the first time, present goals that are sustained, and continued progress of a goal which has already seen some advances. Negative avoidance goals are goals that attempt to prevent a negative outcome. There are two subtypes of these goals: deterring so that something never happens and deterring so that something is delayed. However, hope appears to be most prominent in cases where there is an intermediate degree of chance that the goal will be attained (what is referred to as a "stretch" goal).

Agency thinking refers to the motivational component of Hope Theory. Agency involves both the mental energy required to begin using a pathway to reach a goal as well as the continued use of that pathway despite obstacles. Pathways thinking involves the evaluation and refinement of plans or routes when faced with obstacles to reaching goals. A higher-hope person will be more likely to find alternative routes that maximize the effectiveness of their goal pursuits. Both

agency and pathways thinking are repetitive and additive during the acquisition of goals. Therefore both agency and pathways thinking are required for hope.

Hope Scale

Snyder et al. (1991) developed an instrument to measure the trait of hope, the Hope Scale. The Hope Scale has been administered to more than 20,000 people in research and clinical settings (McDermott & Snyder, 1999). The Adult Hope Scale, labeled the Future Scale or Goals Scale when administered, originally consisted of 45 items reflecting the hypothesized content of hope (Snyder et al., 1991). After pilot testing with 187 male and 197 female undergraduate students, a pool of 14 items were further reduced for the final version to four items each that most closely reflected the agency and pathways components. The final version of the Hope Scale contains eight hope items and four filler items.

The average Hope Scale score is 24 for the 4-point scale (12 each component) or 48 when the 8-point scale is used, although these scores represent a reasonably high level of hope (McDermott & Snyder, 1999). However, for individuals to be considered to have a high hope, they must score high on both the willpower and the waypower components. An individual with full high hope will have a willpower score that is greater than 12; an individual with mixed-low way score will have a willpower score greater than 12 and a waypower score less than 9; an individual with a mixed-low will score will have a willpower score less than 9 and a waypower score greater than 12; and an individual with a full low score will have a willpower score less than 9 and a waypower score less than 9.

Reliability and validity. Cronbach's alphas for the Hope Scale have ranged from .74 to .84 in six samples of undergraduate college students and adults seeking psychological treatment,

which is an acceptably high level (Snyder et al., 1991). Item-remainder coefficients for each item range from .23 to .63 and test-retest correlations have been .80 or above over periods exceeding 10 weeks (Snyder, 1995). Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) have corroborated the two-component model of pathways and agency (Snyder, 1991; Babyak, 1993).

Hope Scale scores resulted in nonsignificant correlations with an unrelated concept, the Self-Consciousness Scale, showing discriminant validity (Snyder et al., 1991). Additional studies were conducted with the Hope Scale and various measures for generalized positive outcome expectancies (as measured by the LOT and the GESS), positive affect (as measured by the PANAS), negative affect (as measured by the PANAS and STAI), and active coping (as measured by the COPE). All the studies resulted in the Hope Scale contributing a unique variance in relation to all the dispositional measures demonstrating discriminant utility.

Hope Scale results have been used to predict who will exhibit superior goal achievements in a variety of other settings (Snyder, 1999). People who score higher in hope have been found to select more difficult goals, report a higher number of goals, can better maintain both agency and pathways behaviors when confronted with a goal obstacle, and are more likely to meet those goals (Snyder, 1991).

Hope and Other Positive Psychology Theories

Scores on the Hope Scale have been shown to be highly correlated with other positive psychological theories. Hope has been found to be linked, either implicitly or explicitly, to optimism, self-efficacy, self-esteem, locus of control, and problem-solving (Carifio & Rhodes, 2002; Snyder, 2000).

Hope is commonly equated to optimism. Using the dispositional hope scale, which is the Adult Hope Scale, Bryant and Cvengros (2004) found that optimism was correlated equally with both the agency and the pathways components of hope. Using a sample of 351 undergraduate students, the authors used two different measures for hope, the Herth Hope Scale (Herth, 1991) and the Adult Hope Scale (AHS) (Snyder et al., 1991). They found the AHS to be a psychometrically superior measure of dispositional hope than the Herth Hope Scale. Hope was found to have more to do with general self-efficacy whereas optimism had more to do with positive reappraisal coping. This finding further confirmed their hypotheses that hope and optimism are separate constructs. Optimism was thought to have a stronger implication for personal outcome appraisals, whereas hope had a stronger implication to personal capabilities beliefs. They suggested that hope focuses more on expectations about personal attainment of specific goals, whereas optimism focuses more on expectations about future outcomes in general.

Additionally, Steed (2002) studied 347 undergraduate students and compared four scales for hope and optimism. They found a cross-loading for one of the pathways items ("I can think of many ways to get out of a jam"). They also found a shared error variance for two agency items ("I energetically pursue my goals" and "I meet the goals that I set for myself"). Of the two measures used for hope, the HOPES scale (Nunn, Lewin, Walton, & Carr, 1996) provided a mixture of cognitive and affective content while the Hope Scale is based on a cognitive conceptualization. The authors contend that, depending on the purpose and audience, the HOPES scale may provide a more useful measure for hope. However, since no further studies could be found assessing the psychometric properties of this scale, the authors recommend the Hope Scale as a more appropriate choice for assessing hope.

Carifio and Rhodes (2002) assessed the construct validities and the relationship between optimism, hope, self-efficacy, and locus of control. Seventy-eight marginal at-risk students and 22 “regular (or normal)” students completed the Hope Scale in addition to scales for optimism, academic self-efficacy, and academic locus of control. The two factors of agency and pathways were found, except one item (item 6) was doubled loaded on both factors. Magaletta and Oliver (1999) also investigated the relationship between hope and each of its components to the related constructs of self-efficacy and optimism. In a study of 204 college psychology students, the authors found that hope, self-efficacy, and optimism were related but not identical construct. The results also supported the validation of the two components of hope as being related but not identical constructs. The hope component of agency made an independent contribution to the prediction of well-being beyond that made by self-efficacy. Similarly, the hope component of pathways made an independent contribution to the prediction of well-being beyond that made by optimism.

State Hope Scale

In addition to a scale to measure the dispositional trait of hope, an instrument was also developed to measure the *state* of hope (Snyder et al., 1996). State hope provides a snapshot measure of an individual’s current goal directed thinking at a given time. Four hundred forty-four introductory psychology students completed both the Hope Scale and an initial eight-item State Hope Scale. Two-hundred forty participants (40 males and 40 females from the top, middle, and bottom Hope Scale scores) were recruited to participate in a further study. The initial State Hope Scale was derived by changing the wording on the Hope Scale to represent a focus on the present with the original filler items removed. Instructions to the participants indicated that

they were to focus on what was going on in their lives “here and now” and rate the items to the extent to which it describes their thinking at that given moment on an eight point scale. Participants took the State Hope Scale daily for 29 consecutive days.

Mirroring the Hope Scale, the State Hope Scale produced two identifiable factors representing the agency and pathways components of hope with high internal consistency. Repeated tests of the factor structure, however, revealed that one agency item (“I am well prepared to handle what is currently happening in my life”) loaded more strongly on the pathways factor and was therefore omitted. To balance the number of agency and pathways items, the pathways item with the lowest factor loading (“Even though others may get discouraged, I know I can find a way to solve my latest problem”) was also omitted. This resulted in a final Hope State Scale with six items, three each agency and pathways items.

Domain Specific Hope Scale (DSHS)

A measurement of hope as it is manifested in different life domains was also established (Sympson, 1999). A list of 16 different life domains was compiled from a review of the literature and research assistants’ own reflection. Six different life domains were selected as the most frequent: social, academic, family, romance/relationships, work/occupation, and leisure activities. The original eight agency and pathways items from the Hope Scale were modified specific to each life domain. Participants rate the importance of, and satisfaction in, the six different life domains on a scale from 0 to 100. After instructions to focus on each life domain area, participants rate each item as it applies to themselves on an 8-point scale ranging from 1 = definitely false to 8 = definitely true. Each domain specific score is totaled for a total Domain Specific Hope Scale score ranging from 48 to 384.

The social domain involves friendships and acquaintances and how the participant interacts with them. The academic domain deals with classes, coursework, interest in school, and grades. The family domain focuses on the participant's relationship with family members and activities and experiences associated with home life. The romance/relationship domain deals with love relationships. The work/occupation domain includes the participant's job history, current jobs, and future occupation. And the leisure domain covers those activities that provide satisfaction but falls outside the areas of work and school.

The Domain Specific Hope Scale (DSHS) has a Cronbach's alpha of .94, with each subscale revealing Cronbach's alphas ranging from .89 to .94. The overall DSHS correlated .66 ($\rho < .001$) with the trait Hope Scale, and correlated .66 and .58 ($\rho < .001$) with the trait Agency and Pathways components, respectively. Additionally, each subscale of the DSHS was positively correlated with the trait Hope Scale, with the Academic subscale having the highest correlation coefficient (.56).

Factor analysis of the DSHS supported the presence of the six separate domain subscales. Full scale Cronbach's alpha was .93, with item-remainder coefficients of .30 to .62. The Social Domain had a Cronbach's alpha of .90; the Academic Domain was .90; the Romantic Domain was .92; the Family Domain was .92; the Work Domain was .88; and the Leisure Domain was .86. The overall DSHS score showed a positive correlation with Hope scale as well as both the Pathways and Agency subscales. Each DSHS subscale also positively correlated with the Hope Scale as well as its two subscales.

Hope Theory in the Workplace

Snyder found that "particularly relevant to the workplace are the findings that high hope individuals tend to be more certain of their goals and challenged by them; value progress toward goals as well as the goals themselves; enjoy interacting with others and readily adapt to new and collaborative relationships; are less anxious, especially in evaluative, stressful situations; and are more adaptive to environmental change" (Peterson & Luthans, 2003, p. 27).

Hope has also been a subject of inquiry within the Positive Organizational Scholarship (POS) research, Positive Organizational Behavior (POB) research, and is one of the components of PsyCap (Luthans, Youssef, et al., 2007), a higher order core construct of POB. Relationships have been found between hope in the workplace and employee retention, job satisfaction, performance, work happiness, leadership, and organizational commitment (Luthans, Avolio, et al., 2007; Peterson & Byron, 2008; Peterson & Luthans, 2003; Searle & Barbuto Jr., 2011; Youssef & Luthans, 2007).

Hope and Positive Organizational Scholarship. Positive Organizational Scholarship (POS) is the "study of especially positive outcomes, processes, and attributes of organizations and their members" (Cameron, Dutton, & Quinn, 2003, p. 3). POS advocates the position that by focusing on elements such as "meaning creation, relationship transformation, position emotion cultivation, and high-quality connections" (p. 10), organizations can create a sustained competitive advantage.

Authentic leadership, an area of POS, is a positive approach to leadership which results in a greater self-awareness and self-regulated positive behaviors for both leaders and associates (Luthans & Avolio, 2003). These behaviors foster positive self-development, giving priority to

developing associates to be leaders. Along with confidence, optimism, and resiliency, hope is one of the positive psychological antecedents to the Authentic Leadership Development Model. Although hope has not had much application to leadership, one study was conducted with 59 fast-food managers and their employees using the State Hope Scale (Peterson & Luthans, 2003). Thirty-five of the managers scored as low-hope (M = 21.4) and 24 managers scored as high-hope (M = 39.23). It was found that the managers whose scores defined them as having high-hope had better profits, higher employee retention, and more satisfied employees.

Searle and Barbuto Jr. (2011) viewed hope as a micro-positive organizational behavior that may be optimized by servant leadership. Servant leadership is considered to be among the most positive forms of leadership that "emphasized service over self-interest, foci on the developmental needs of others, ethical moral behavior, and an altruistic ideology" (p. 107). Searle and Barbuto Jr. (2011) provided a conceptual framework that incorporates the construct of servant leadership as an antecedent to positive micro-behaviors which includes hope. However, further research studies are needed to further refine and test this framework.

Hope and Positive Organizational Behavior. Another application of positive psychology to the workplace is Positive Organizational Behavior (POB). POB is defined as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace" (Luthans, 2002b, p. 698). While POS looks more at the organizational level of analysis, POB looks at the micro and mesolevels of analysis (Luthans & Avolio, 2009). Additionally, POB inclusion criteria require that a construct must be based on theory, research, and valid measurement; must be state-like (rather than trait-like) and malleable;

and must be related to performance. Although hope is typically thought of as a trait, hope can also be state-like and therefore met the criteria for inclusion as a POB construct. Luthans (2002b) contends that, although it has been given the least attention, hope is the most unique POB capacity. Because of the direct and indirect evidence of the relationship of hope to leadership and employee performance, hope is "exactly the type of positive psychological capacity for OB that is needed to be further explored and applied" (p. 701).

Youssef and Luthans (2007) conducted two studies (n = 1032 and n = 232) in which employees from a wide variety of organizations completed several standard measures including the Hope Scale. The studies examined the relationship between the positive psychology capacities of hope, optimism, and resilience with performance, job satisfaction, work happiness, and organizational commitment. At least some support for discriminant validity for each of the variables was found in both studies. In the first study, each of the three positive psychology capacities was positively related to job satisfaction and work happiness. However, only hope and resilience were found to be related to organizational commitment and only hope was found to be related to self-reported performance. In the second study, only hope was found to be significantly positively related to job satisfaction, work happiness, and organizational commitment.

Hope and PsyCap. Building off POB as the foundation, psychological capital (PsyCap) is a higher-order positive construct that is comprised of self-efficacy/confidence, optimism, hope, and resiliency (Luthans, Youssef, et al., 2007). However, PsyCap not only integrates the POB capacities but contends that PsyCap as a whole is greater than the sum of each of the capacities. Research has shown the discriminant and convergent validity for the four PsyCap capacities (Bryant & Cvengros, 2004; Carifio & Rhodes, 2002; Magaletta & Oliver, 1999). The hope

component of PsyCap uses Snyder's definition of hope as a developmental state. The authors contend that a one-way, noninteractive approach to training can diminish agency but more hope-promoting types of training (i.e., those that are hands-on, interactive, and participative) can leave room for self-awareness, self-regulation, self-evaluation, and self-development. Building hope is beneficial for the personal and professional lifelong learning and adaptation of employees. A high-hope organizational culture promotes employees to become motivated and develop pathways to attain organizational goals as well as self-set goals (Luthans, 2002a).

Conclusion

Self-directed learning within the workplace remains an important topic for researchers and practitioners. An appropriate measure for self-direction specifically for the workplace remains one stumbling block to research in the area but significant progress has been made in that area with the recent development of the Survey of Adult Learning Traits (Hogg, 2008) and Learner Self-Directedness in the Workplace Scale (De Bruin & De Bruin, 2011). Also, the term "self-directed learning" may not be as commonly known within the workplace learning literature as it is within the area of adult and higher education. Many HRD researchers consider "self-directed learning" to be a form of informal or incidental learning and may not even use the term "self-directed" to describe behaviors that adult education researchers would typically classify as self-directed. Some of the current best practices used by training and development professionals are activities that would be included in the term "self-directed learning" although they may not labeled as such.

Similarly, hope theory can provide some important information for researchers and practitioners in the workplace. Hope research has revealed connections to workplace

performance, leadership, job satisfaction, work happiness, and organizational commitment. Building hope is also beneficial for the personal and professional lifelong learning of employees. Although there currently exists a hope scale specific for the work/occupation domain, a hope scale specific for workplace learning does not exist. The study seeks to fill the research gap identified in the review of the literature on self-direction and hope theory specific to workplace learning.

Chapter 3

Method

The literature review in the previous chapter provided a description of self-directed learning in the workplace and of hope theory. The literature demonstrates a need for a study that specifically addresses both self-directed learning in the workplace and hope within the specific domain of workplace learning. The following chapter provides an explanation of the specific method for the design of the study that examined the relationship between hope, hope specific to workplace learning, self-directed learning in the workplace, and learner self-directedness in the workplace.

Population and Sample

The sample for this study was a convenience sample of adult workers recruited from a private university located in the southeast. A convenience sample is a sample where the participants are chosen based on their availability to participate in the research study. Although Vogt (2007) strongly cautions against the use of convenience sampling, Stevens (1996) suggests that convenience samples may be appropriate for limited populations and exploratory research.

Full and part-time faculty, staff, and student workers from two campuses of a private university were recruited for participation in this study via an email request. Faculty participants were selected from the School of Arts and Sciences, School of Education, School of Bible and Theology, School of Intercultural Studies, School of Creative Arts, School of Social and Behavioral Sciences, and the School of Congregational Ministry. University staff members included staff and student worker participants from the President's office, Academic Affairs, Academic Support, Online Education, Library, Student Services, Athletics, Registrar,

Admissions, Student Accounts, Financial Aid, Office of Institutional Effectiveness, Advancement, Print Shop, Business Office, Information Technology, Plant Services, and the various academic department offices. Total faculty and staff consisted of approximately 275 potential participants and students employed by the University consisted of approximately 325 to 350 potential participants each semester, for a sample total of approximately 600. A sample of the solicitation used is provided in Appendix A.

Sample Size

McCready (1996) states that for nonprobability sampling, a pragmatic rule of thumb for beginning researchers is to use the mean of the sample sizes observed during the literature review, typically between 50 and 200 participants. Tinsley and Tinsley (1987) contend that a "widely quoted but also overly simplified rule of thumb is that 10 subjects or 5 subjects at a minimum are required for every variable being analyzed" (p. 415). However, Arrindell and van der Ende (1985) found that "neither the observations-to-variables ratio nor an absolute number of observations had any effect on factor stability" (Tinsley & Tinsley, 1987, p. 415). This led Tinsley and Tinsley (1987) to recommend that researchers "consider the number of factors that theoretically would be expected to emerge from the analysis and that they include more than enough variables to measure each factor. This procedure will increase the precision of the factor analysis, thereby lessening the importance of obtaining large numbers of subjects" (p. 415). However, when the number of factors that theoretically would be expected to emerge cannot be estimated, they recommend the 5-10 participants per item rule, up to a total of 300 respondents.

Informed Consent Procedures

The appropriate informed consent forms were drafted and submitted for approval with the University of Tennessee's Human Subjects Committee prior to initiation of data collection. Adult workers who were solicited for this study were offered the opportunity to decline participation or withdraw without penalty at any time. Study participants were offered the opportunity to enter a random drawing for one of four $25 bank cards as a reward for their participation in the study, if they desire. There should be no significant risk to the participants. The informed consent form is included in Appendix B.

Procedure

The researcher prepared a brief explanation of the nature of the research study and secured informed consent for participation before solicited adult workers participants are given the two self-directed learning scales, the two hope scales and the demographic profile information to complete. Administration instructions were printed at the top of each questionnaire. There was no time limit for completion of the scales. A 60-90 item questionnaire should be able to be completed within 15-20 minutes, therefore it is expected that participants can complete the demographic information and the study instruments in less than 15 minutes.

Participants were solicited through an email invitation from the University's Vice Provost for Research and Planning. Department heads were instructed to forward the email invitation to their student work-study students. If they choose to participate in the study, participants were directed to a website to complete a web-based questionnaire containing the four scales and demographic profile. Once they had completed the questionnaire, they may choose to have their name entered into a drawing for one of four (4) bank cards worth $25 each. General reminders

were electronically sent to all participants after one and two weeks. Three weeks following the initial invitation, access to the website containing the questionnaire was closed. At this point, analysis of the aggregated data was conducted.

Variables and Instrumentation

This study utilized four instruments: the Survey of Adult Learning Traits (SALT), the Learner Self-Directedness in the Workplace Scale (LSWS), the Adult Trait Hope Scale (Goals Scale), and the author generated Workplace Learning Hope Scale (see Table 1), along with a demographic information profile. All scales and the demographic information profile were administered via Qualtrics, a web-based survey tool that was provided through the University of Tennessee. This survey tool allows researchers to run frequencies while it collects and downloads data into SPSS (Statistical Package for the Social Sciences version 21). Survey questions become variable labels and the responses become value labels (The University of Tennessee, 2006).

The title of the study that was displayed on the questionnaire reflected the content of the instrument without revealing too much information that may create bias and affect the outcome of the research. The scale titles in this document are listed as the Learner Self-directedness in the Workplace Scale (LSWS), Survey of Adult Learning Traits (SALT), Adult Trait Hope Scale, and the Workplace Learning Hope Scale. See Table 1 for more information. These titles may predispose the respondents to give socially desirable answers (Lounsbury, Gibson, & Saudargas, 1996). To avoid response bias, the title given to the questionnaire for administration had a more neutral, ambiguous title, The Workplace Learning Goals Scale. After the title, a brief introductory statement was provided that included a brief summary of the questionnaire's

purpose, described the level of confidentiality, and a statement of the average time it will take to complete the questionnaire. Next, directions for completion were provided. These were complete, unambiguous, and concise and specified how the answer sheet should be filled out.

Table 1

Survey Instruments

Instrument	**Author**	**Purpose**	**Number of items/factors**
Survey of Adult Learning Traits (SALT)	Hogg, 2008	Self-directed learning in the workplace	14 items – 3 factors
Learner Self-Directedness in the Workplace Scale (LSWS)	De Bruin & De Bruin, 2011	Self-directedness in the workplace	13 items – 1 factor
Hope Scale	Snyder, et al, 1991	Trait of Hope for adults	12 items (4 filler items) – 2 factors
Workplace Learning Hope Scale	Dieffenderfer	Hope specific to workplace learning	8 items

Survey of Adult Learning Traits

The Survey of Adult Learning Traits (SALT) (Hogg, 2008) is a scale developed specifically to measure self-directed learning in the workplace. The self-directed construct in this instrument addresses self-regulation, motivation, cognitive factors, and the social and environmental setting. The final instrument was administered to over 200 employees and consisted of 14 items, divided into three domains: Motivation and Self-Regulation, Cognitive Elements, and Social/Environment. This instrument was found to be a reliable and valid measure for all domains. Cronbach's alphas for the three domains ranged from .60 for Motivation and Self-Regulation, .77 for Social/Environmental, and .81 for Cognitive Elements. A bivariate

correlation was conducted using the Motivation and Self-Regulation items, the Cognitive Elements items, and the Social/Environmental items. Pearson correlation coefficients were less than or equal to .80, suggesting that the scales have discriminate validity and are not measuring the same concept. A copy of the scale is provided in Appendix C. Permission from the author has been secured to use this instrument in the study and is provided in Appendix D.

Learner Self-Directedness in the Workplace Scale

The Learner Self-Directedness in the Workplace Scale (LSWS) (De Bruin & De Bruin, 2011) is a 13-item instrument also developed to measure self-direction in the workplace. This instrument has been shown to measure a single one-dimensional construct, learner self-directedness ($\alpha = 0.93$), a different but related concept from the construct which the SALT measures. Participants indicated their agreement with the items based on a 5-point Likert-type scale. Four items related to more passive aspects of the learning process were easy for the participants to agree with. Four items that were more difficult for participants to agree with related to the participants taking a more active responsibility to pursue their learning goals. The usefulness of this scale may lie in its ability to identify participants who score lower in learner self-directedness more than with those who score higher. However, this instrument was validated with a South African population and could benefit from validation studies with other populations. Permission from the author has been secured to use this instrument in the study. A copy of the final version of the scale and permission for use is provided in Appendix E & Appendix F.

Hope Trait Scale

The Hope Trait Scale (Snyder et al., 1991) is a self-report scale developed to measure dispositional hope in adults. The Hope Trait Scale (may be labeled the Goals Scale or the Future Scale when administered) consists of eight items representing the two components of hope (four items each component) plus four filler items. The four agency items reflect one past goal determination item, two present goal determination items, and one future goal determination item. The items are rated on either a 4-point scale (*1 = definitely false, 2 = mostly false, 3 = mostly true, 4 = definitely true*) or an 8-point scale (ranging from *1 = definitely false to 8 = definitely true*). The 8-point scale was used in this study to provide continuity with the Workplace Learning Hope Scale and was used to validate the author-generated Workplace Learning Hope Scale. Cronbach's alphas ranged from .74 to .84; the agency subscale Cronbach's alphas ranged from .71 to .76; and the pathways subscale Cronbach's alphas ranged from .63 to .80, indicating an acceptable internal reliability for research purposes (Snyder et al., 1991). A copy of the scale is provided in Appendix G. A copy of the permission from APA is provided in Appendix H.

Workplace Learning Hope Scale

Based on other domain specific hope scales (Sympson, 1999), the researcher developed a hope scale specific to the domain of learning in the workplace. The domain specific hope scales were developed by revising items of the Hope Scale (Snyder et al., 1991) to fit each specific domain. Following the same format used to develop the subscales of the Domain Specific Hope Scale, the researcher developed a hope scale specific for learning in the workplace, revising hope

scale items to be specific for workplace learning. The Workplace Learning Hope Scale is provided in Appendix I.

Demographic Profile information

The demographic profile section was provided at the end of the questionnaire. This is the recommended position since respondents will be familiar with the survey at this time and are more likely be cooperative (Alreck & Settle, 2004; Colton & Covert, 2007; Nardi, 2006). Also, if respondents become fatigued or choose to not answer this section, the survey information will have already have been completed and may still be usable for data analysis. Category responses contained ranges of equal intervals as much as possible. All demographic questions were mutually exclusive and exhaustive, including a category of "other" if necessary. It was important to limit demographic variables to only those that will be used to answer specific questions relevant for the survey information. One research question was to determine the relationship between selected demographic factors and responses to questionnaire items. The sample surveyed was large enough to ensure that the demographic information does not compromise confidentiality and will not contain questions that respondents would feel are sensitive or threatening (Alreck & Settle, 2004; Colton & Covert, 2007).

A copy of the demographic profile is provided in Appendix J. Demographic characteristics surveyed include: gender, age (by cohort), employment classification (staff, faculty, or student worker), number of formal training hours completed during the last 12 months, number of years' experience at any organization, and the number of self-directed workplace learning projects completed within the last 12 months. Following a similar format

utilized for the Domain Specific Hope Scale, an item for the participant to indicate their level of satisfaction with and importance of workplace learning was also provided.

Reliability Check

One main consideration for scale development is that the scale has internal consistency reliability. The initial data collection was assessed using the Statistical Package for the Social Sciences (SPSS) to determine Cronbach's alpha for the author designed Workplace Learning Hope Scale. Cronbach's alpha is a measure of a scale's internal consistency reliability. An alpha of at least .75 in this stage of scale development was determined to be a sufficient measure of reliability (Lounsbury et al., 1996). The six subscales of the Domain Specific Hope Scale had alpha values ranging from .89 to .94, with the overall DSHS having a Cronbach's alpha of .94. Therefore, it is expected that the Workplace Learning Hope Scale will achieve a Cronbach's alpha of at least .75.

Validity

Validity is probably the most important aspect of a measurement instrument. There are many different types of validity, which refers to "the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores" (Messick, 1989, p. 13). Concurrent validity, incremental validity, and content validity for this study will be discussed.

Concurrent validity

Concurrent validity refers to the extent the construct is related to another construct that is measured at the same time. The Learner Self-directedness in the Workplace Scale (LSWS) and the Survey of Adult Learning Traits (SALT) were administered at the same time. The scores on

the two instruments should positively correlate with each other for concurrent validity to be established. Additionally, the Hope Trait scale measures the general trait of hope, while the author-generated Workplace Learning Hope Scale measures hope specific to the domain of workplace learning. Therefore, the scores on these two instruments should positively correlate with each other for concurrent validity to be established.

Content validity

Content validity is usually assessed in terms of expert opinion since it cannot be measured by a statistic (Lounsbury et al., 1996). Face validity refers to whether or not the test seems to measure what it is intended to measure. Face content validity of the Workplace Learning Hope Scale was established by the researcher following the same protocol used in the development of the previous domain specific hope scales. The DSHS modified the eight agency and pathways items from the original Adult Hope Scale to assess hope specific to each life domain. Similarly, the eight agency and pathway items from original Adult Hope Scale were modified to be specific to workplace learning in the Workplace Learning Hope Scale.

Data Analysis Procedures

The data analysis procedure for the study included the use of descriptive statistics, demographics, frequency distributions, and total test scores. Pearson's product moment correlation coefficient values, Analysis of Variance (ANOVA) and multiple regressions were calculated for appropriate variables. The author-generated Workplace Learning Hope Scale was validated. The differences between self-directed learning, hope, and selected demographic variables were also investigated for this sample. Additionally, the relationship between the two

different self-directed learning scales and the two different hope scales for this sample of adult participants in this study were analyzed.

Research question #1: Is the Workplace Learning Hope Scale a valid and reliable measure for hope specific to the domain of workplace learning in a sample of adult workers?

To answer this research question, first the Cronbach's alpha for the author designed Workplace Learning Hope Scale was determined. An alpha of at least .75 was determined to be a sufficient measure of reliability (Lounsbury et al., 1996). The six subscales of the Domain Specific Hope Scale had alpha values ranging from .89 to .94, with the overall DSHS having a Cronbach's alpha of .94 (Sympson, 1999). Therefore, it is expected that the Workplace Learning Hope Scale will achieve a Cronbach's alpha of at least .75.

Next, relationships between both the Agency and the Pathways components of the Hope trait scale as well as the total hope score and the Workplace Learning Hope Scale score were assessed. The concurrent validity of the Workplace Learning Hope scale was assessed by Pearson's product moment correlation coefficient values. If the Workplace Learning Hope Scale shows a significant positive relationship with the Hope Trait Scale, concurrent validity will be established.

Research question #2: Is there a significant relationship between self-directed learning and hope in the workplace in a sample of adult workers?

Data for this research question was analyzed using Pearson's product moment correlations for each of the instruments utilized in this study. A significant positive correlation between the author-developed Workplace Learning Hope Scale and each of the two self-directed learning scales is expected.

Research question #3: Are there significant differences between self-directed learning in the workplace, learner self-directedness, workplace learning hope, the trait of hope, and selected participant characteristics in a sample of adult workers? The demographic variables of number of self-directed learning projects, and number of formal training hours were evaluated.

Following the procedure used for validating the Domain Specific Hope Scale (DSHS) (Sympson, 1999), the Workplace Learning Hope Scale will also assess the importance and satisfaction of the participant's workplace learning to their level of hope. Additionally, the variable "dissatisfaction" was calculated by subtracting the satisfaction rating from the importance rating for workplace learning.

Data for this research question was analyzed using Pearson's product moment correlations for the Workplace Learning Hope Scale and each of the self-directed learning scales utilized in this study. Scores on the dissatisfaction for the DSHS ranged from -148.00 to 275.00 and correlated -.25 with trait Hope scale scores and -.23 with the DSHS, with slightly higher correlations using the noncompensatory model. In the compensatory model, higher levels of satisfaction relative to importance in one area could compensate for higher levels of importance relative to satisfaction in other areas. Since the topic of this study contains only one area of domain specific hope, the noncompnesatory model was utilized.

Conclusion

Three research questions will guide this study. They consist of the validation of a hope scale specific for the domain of workplace learning (Research Question #1); correlations between hope and self-direction in the workplace (Research Question #2); and correlations between self-directed learning in the workplace, learner self-directedness, workplace learning

hope, the trait of hope, and selected participant characteristics in this sample of adult workers (Research Question #3). Research tools will consist of Survey of Adult Learning Traits, the Learner Self-directedness in the Workplace Scale, the Hope Trait Scale, the author-generated Workplace Learning Hope Scale, and a demographic profile questionnaire.

The sample for this study will consist of adult workers solicited through an email solicitation at a local private university. The entire population solicited was invited to participate in the study that included a link to the online survey form. Two additional mailings encouraged nonrespondents to participate. An SPSS database received the responses from the online survey form for analysis. Statistical testing involved descriptive statistics, correlational analysis, multiple regression analysis, and ANOVAs.

The following chapter will address the results of the statistical analysis. The discussion of the data includes information on the three employment groups and addresses the research questions investigated by the researcher.

Chapter 4

Results

Chapter 4 presents the results of the data analysis for each of the research questions. The chapter begins with an analysis of the participants' demographic characteristics. The descriptive data for the test scores and reliability calculations are detailed, along with relevant comparisons to previous studies. Next, an analysis of the results of three research questions guiding this current research is presented to determine the relationship between self-directed learning and hope in the workplace. Finally, additional participant comments are included.

Demographic Characteristics of Participants

Of the available population of approximately 600, 139 participants from three employment classifications (faculty, staff, student work-study worker) participated in this study, yielding an approximate 23.17% return rate. All participants completed the Learner Self-Directedness in the Workplace Scale (LSWS), and 127 participants completed the other self-directed learning instrument, the Survey of Adult Learning Traits (SALT). One-hundred twenty-two participants completed the Hope Trait scale and 129 participants completed the author-generated Workplace Learning Hope Scale.

There were three employment classification types identified in this study: faculty, staff members, and student work-study workers. The employment classification type was comprised of 41 faculty members (29.5%) and 60 staff members (43.2%), which accounts for an approximate 36.73% response rate for faculty and staff members combined. Twenty-four participants were student workers (17.3%) from the University's work-study program (7.38% response rate); and 14 participants did not respond to this question (10.1%). There were 60 males

(43.2%), 67 females (48.2%), and 12 did not report their gender (8.6%). Ten participants were 21 and under (7.2%); 39 were 21-39 (28.1%); 65 were 40-64 (46.8%); 12 were 65+ (8.6%); and 13 did not disclose their age (10.1%). Twenty-seven participants had 0-5 years' work experience (19.4%); 15 had 6-10 years' work experience (10.8%); 13 had 11-15 years' work experience (9.4%); 20 had 16-20 years' work experience (14.4%); 51 had over 20 years' work experience (36.7%); and 13 did not respond to this question (9.4%). Table 2 provides more detailed information about selected demographics by employment classification.

Table 2

Crosstabulation of Selected Demographics by Employment Classification

Employment Classification	Faculty	Staff	Student worker	Total
Gender				
Male	22	27	10	59
Female	19	33	14	66
Total	41	60	24	125
Age				
21 and under	0	0	9	9
21-39	7	17	15	39
40-64	28	37	0	65
65 and older	6	5	0	11
Total	41	59	24	124
Work Experience				
0-5 years	1	9	17	27
6-10 years	3	9	3	15
11-15 years	6	6	1	13
16-20 years	6	12	2	20
More than 20 years	25	24	1	50
Total	41	60	24	125

The researcher posed four additional questions that related to the number of annual self-directed learning projects, number of annual formal training hours, and the participant's perceived level of importance of and satisfaction with workplace learning. Table 3 provides shows the frequency distribution of annual self-directed learning projects, annual formal training hours, perceived level of importance of workplace learning and satisfaction with workplace learning by employment classification.

Table 3

Frequency Distribution of Annual Self-Directed Learning (SDL) Projects and Annual Training Hours by Employment Classification

Employment Classification	Faculty	Staff	Student worker	Total
Annual SDL Projects				
0-12	21	46	19	86
13-24	11	6	3	20
25-36	2	4	2	8
37+	7	4	0	11
Total	41	60	24	125
Annual Training Hours				
0-12	24	37	20	81
13-24	7	10	2	19
25-36	5	8	1	14
37+	5	5	1	11
Total	41	60	24	125
Importance of workplace learning				
Not at all important	0	0	0	0
Very Unimportant	2	3	0	5
Neither Important nor Unimportant	2	10	4	16
Very Important	23	40	17	80
Extremely Important	14	7	3	24
Total	41	60	24	125
Satisfaction with workplace learning				
Very Dissatisfied	0	1	1	2
Dissatisfied	2	9	0	11
Neutral	4	15	9	28
Satisfied	25	31	13	69
Very Satisfied	10	4	1	15
Total	41	60	24	125

Data Analysis

This section details the descriptive data for the test scores and reliability calculations. Relevant comparisons to previous studies are also highlighted. Psychometric properties of each instrument used in this study are shown in Table 4.

Table 4

Psychometric Properties of Instruments

Variable	*N*	*M*	*SD*	*α*	*Variance*
SALT[a]					
Overall	127	53.11	6.983	.843	48.766
Motivation	129	15.82	2.156	.588	4.648
Cognitive	128	20.35	2.811	.810	7.899
Social	129	16.86	3.466	.705	12.012
LSWS[b]					
Overall	139	52.91	8.016	.933	64.253
Hope Trait					
Overall	122	52.84	6.308	.875	39.785
Agency	124	26.76	3.418	.817	11.681
Pathways	125	26.03	3.367	.739	11.338
Workplace Learning Hope					
Overall	129	53.05	6.811	.859	46.388
Agency	129	27.30	3.381	.694	11.431
Pathways	129	25.78	3.977	.823	15.818

a. Survey of Adult Learning Traits
b. Learner Self-Directedness in the Workplace Scale

Self-Directed Learning Instruments

The two self-directed learning instruments used in this study are the Survey of Adult Learning Traits (SALT) (Hogg, 2008) and the Learner Self-Directedness in the Workplace Scale (LSWS) (De Bruin & De Bruin, 2011). The mean for the overall SALT score was 53.11 (out of a

possible 70), and the mean for the overall LSWS score was 52.91 (out of a possible 65), as shown in Table 4.

SALT. The initial study for the SALT (Hogg, 2008) examined the level of education and employment classification differences for the three sub-sections of the scale at a major manufacturing facility. Another study utilizing the SALT (R. S. Campbell, 2011) also examined the three sub-sections of the scale within one department of a major university. The SALT scores for the current study were consistent with the two other studies utilizing the SALT. A comparison of the results is shown in Table 5. Cronbach's alpha for the overall scale for this study was .843. Neither the Hogg nor the Campbell study reported the overall alpha for the SALT in their studies so comparisons with the current study could not be made for the overall SALT score. However, since the coefficient alphas for the subscales are fairly similar in all three studies, it is reasonable to assume that the overall SALT measure would likely be similar in all three studies.

Table 5

Cronbach's Alpha for Studies Using the SALT

Scale	***Current study***	***Hogg study***	***Campbell study***
N	129	205	416
Motivation & Self-Regulation	.588	.60	.612
Cognitive Elements	.810	.81	.762
Social/Environmental	.706	.77	.703

LSWS. The initial LSWS study consisted of a total of 519 participants (443 of which were women); the calibration group had 261participants and the replication group had 258 (De Bruin & De Bruin, 2011). The initial study had an alpha of 0.93 which is exactly the same score that this study produced ($\alpha = 0.933$).

A correlation was computed between the composite scores for the two SDL instruments, the LSWS and the SALT, with a value of $r = .598$, $\rho < .01$ (see Table 6). Significant relationships were also shown for each of the subscales of the SALT and the LSWS as well as the overall SALT score (all correlations significant at the .01 level). Since both instruments were administered at the same time, both instruments measure self-directed learning, and the scores on the two instruments were positively correlated with each other, concurrent validity was established.

Table 6

Correlations among SALT and LSWS Scores

	SALT-Social[a]	**SALT-Cognitive[a]**	**SALT-Motivation[a]**	**SALT (Overall)[a]**	**LSWS (Overall)[b]**
SALT-Social[a]					
Pearson Correlation	1				
Sig. (2-tailed)	.000				
N	130				
SALT-Cognitive[a]					
Pearson Correlation	.467**	1			
Sig. (2-tailed)	.000	.000			
N	130	130			
SALT-Motivation[a]					
Pearson Correlation	.482**	.645**	1		
Sig. (2-tailed)	.000	.000	.000		
N	130	130	130		
SALT (Overall)[a]					
Pearson Correlation	.831**	.837**	.808**	1	
Sig. (2-tailed)	.000	.000	.000	.000	
N	130	130	130	130	
LSWS (Overall)[b]					
Pearson Correlation	.302**	.592**	.675**	.598**	1
Sig. (2-tailed)	.000	.000	.000	.000	.000
N	130	130	130	130	130

** Correlation is significant at the $p < .01$ level (2-tailed)

a. Survey of Adult Learning Traits

b. Learner Self-Directedness in the Workplace Scale

Hope Instruments

The psychometric properties of each of the two instruments that measure hope, the Hope Trait Scale (Snyder et al., 1991) and the author developed Workplace Learning Hope Scale, will be discussed in this section. Cronbach's alphas for the overall score of the Hope Trait Scale have ranged from .74 to .84; the agency subscale Cronbach's alphas have ranged from .71 to .76; and the pathways subscale Cronbach's alphas have ranged from .63 to .80 (Snyder et al., 1991). The present study resulted in a slightly higher Cronbach's alpha of .875 for the overall Hope Trait score; the agency subscale Cronbach's alpha was also slightly higher at .817; and the pathways subscale Cronbach's alpha was within the comparable range at .739 (see Table 4).

Utilizing the same format as the one used for the development of each of the Domain Specific Hope Scale subscales (Sympson, 1999), the Workplace Learning Hope Scale was developed by adapting each scale item of the Hope Trait Scale for adults specific for learning in the workplace (Snyder et al., 1991). The Cronbach's alpha for the overall score of the Domain Specific Hope Scale (DSHS) was .93, with each subscale's Cronbach's alpha ranging from .86 for the Leisure Hope subscale through .92 for the Romantic and Family Hope subscales. In this study, the Cronbach's alpha for the Workplace Learning Hope Scale was slightly lower at .859 (see Table 4). However, this score is still within the range to indicate that the instrument has high internal consistency reliability.

Because this scale, as well as the DSHS subscales, is meant to assess the level of hope within a specific area, the total score of the Workplace Learning Hope Scale should correlate positively with the overall Hope Trait Scale. The overall DSHS was positively correlated ($r = .66$, $p < .01$) with the overall Hope Trait Scale, with each of the subscales also positively

correlating with the Hope Trait Scale ranging from .56 to .28 (all correlations significant at the $p < .01$ level) (Sympson, 1999). In the current study, the overall Workplace Learning Hope Scale was also positively correlated with the overall Hope Trait Scale ($r = .699$, $p < .01$).

The agency subscale of the DSHS was positively correlated with the agency subscale of the Hope Trait Scale ($r = .66$, $p < .01$), and the pathways subscales were positively correlated with the pathways subscale of the Hope Trait Scale ($r = .58$, $p < .01$). In this study, the Workplace Learning Hope Scale agency subscale was also positively correlated ($r = .612$, $p < .01$) with the agency subscale of the Hope Trait Scale; and the Workplace Learning Hope Scale pathways subscale was positively correlated with the pathways subscale of the Hope Trait Scale ($r = .587$, $p < .01$) (see Table 7). These scores are comparable with the Domain Specific Hope Scale and subscale score results.

Table 7

Correlations among Hope, Workplace Learning Hope, and Each Subscale

		Workplace Learning Hope	Workplace Learning Hope Pathways	Workplace Learning Hope Agency	Hope Trait	Hope Trait Pathways	Hope Trait Agency
Workplace Learning Hope	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	130					
Workplace Learning Hope Pathways	Pearson Correlation	.932**	1				
	Sig. (2-tailed)	.000					
	N	130	130				
Workplace Learning Hope Agency	Pearson Correlation	.906**	.690**	1			
	Sig. (2-tailed)	.000	.000				
	N	130	130	130			
Hope Trait	Pearson Correlation	.699**	.627**	.657**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	127	127	127	127		
Hope Trait Pathways	Pearson Correlation	.647**	.587**	.602**	.921**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	127	127	127	127	127	
Hope Trait Agency	Pearson Correlation	.643**	.571**	.612**	.924**	.703**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	127	127	127	127	127	127

**. Correlation is significant at the $p < .01$ level (2-tailed)

Research Questions

The current study investigated three research questions to determine the relationship between self-directed learning and hope in the workplace. Each research question is stated below and followed by an analysis of the related results.

Research Question #1

Is the Workplace Learning Hope Scale a valid and reliable measure for hope specific to the domain of workplace learning in a sample of adult workers?

Reliability was established for the Workplace Learning Hope Scale based on Cronbach's alpha for the total score. Total test reliability ($\alpha = .859$) indicates that the instrument has a high internal consistency reliability. The Workplace Learning Hope Scale reliability scores in this study compare favorably to those found by Sympson (1999) for the Domain Specific Hope Scale, which had a Cronbach's alpha of .94 for the overall score and Cronbach's alphas ranging from .86 to .92 for each domain specific sub-scale.

Next, relationships between both the Agency and the Pathways components of both the Hope Trait scale and the Workplace Learning Hope Scale score were assessed. Although the Cronbach's alpha for the Workplace Learning Hope Scale indicated high internal consistency reliability (suggesting the instrument contains only one factor), the agency and pathways scale item components were assessed for comparison purposes. The Pearson's product moment correlation output showed a significant relationship between the total score for the Workplace Learning Hope Scale and the total score for the Hope Trait Scale ($r = .699$, $p < .01$); the Workplace Learning Hope Scale pathways subscale had a significant relationship with the Hope

Trait Scale pathways subscale ($r = .587$, $p < .01$); and the Workplace Learning Hope Scale agency subscale had a significant positive relationship with the Hope Trait agency subscale ($r = .612$, $p < .01$).

The Workplace Learning Hope Scale items were designed similar to the format utilized with the Domain Specific Hope Scale by revising items of the Hope Trait scale to the specific domain of workplace learning, establishing content validity. The Hope Trait scale measures the general trait of hope, while the Workplace Learning Hope Scale measures hope specific to the domain of workplace learning. Therefore it is expected that the Workplace Learning Hope Scale would correlate with the established Hope Trait scale. This study found that both hope instruments were significantly positively correlated with each other ($r = .699$, $p < .01$) establishing concurrent validity.

The Workplace Learning Hope scale was also assessed by multiple regression analysis. The Workplace Learning Hope was used as the dependent variable with Hope Trait as the predictor variable resulting in a moderately good fit (adjusted $R^2 = .484$) (0.31 - 0.5 = moderate fit) (Muijs, 2011). The Hope Trait accounts for 48.4% of the variance of the Workplace Learning Hope Scale. Table 8 shows the regression analysis results for Workplace Learning Hope and Hope Trait overall scores.

Table 8

Workplace Learning Hope Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699[a]	.488	.484	4.78706

a. Predictors: (Constant), Total Hope Trait

A one-way analysis of variance (ANOVA) was used to compare total scores on the Workplace Learning Hope Scale between the three levels of the Hope Trait; low hope (overall scores 45 and below), medium hope (overall scores 49-53), and high hope (overall scores 58 and above). The one-way ANOVA revealed that the means for the three groups were significant; $F(2, 117) = 21.145$, $p < .01$ (see Table 9). Tukey post-hoc revealed that the means of all three groups differed from each other; low = 44.36, medium = 52.69, high = 55.23. The mean scores on the Workplace Learning Hope Scale increased with the level of overall Hope Trait; that is, low hope trait (M = 44.3571, SD = 6.40441), medium hope trait (M = 52.6897, SD = 5.97078), and high hope trait (M = 55.2338, SD = 5.60990). Thus Workplace Learning Hope scores increase with additional levels of overall Hope Trait (see Table 10).

Table 9

Workplace Learning Hope ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1418.087	2	709.043	21.145	.000
Within Groups	3923.213	117	33.532		
Total	5341.300	119			

Table 10

Descriptive Statistics for Workplace Learning Hope by Level of Hope

Hope Level	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Low	14	44.3571	6.40441	1.71165	40.6593	48.0549	30.00	53.00
Medium	29	52.6897	5.97078	1.10875	50.4185	54.9608	36.00	62.00
High	77	55.2338	5.60990	.63931	53.9605	56.5071	37.00	64.00
Total	120	53.3500	6.69962	.61159	52.1390	54.5610	30.00	64.00

Research Question # 2

Is there a significant relationship between self-directed learning and hope in the workplace in a sample of adult workers?

Data to address Research Question #2 were analyzed using Pearson product moment correlation for the composite scores of each of the four instruments utilized in this study. There was a statistically significant relationship between the Workplace Learning Hope scale score and each of the two self-directed learning scale scores; $r = .593$ for LSWS, and $r = .589$ for SALT (all correlations significant at the $p < .01$ level) (see Table 11). Both the overall LSWS and the overall SALT revealed higher correlations with the overall Workplace Learning Hope Scale than with the overall Hope Trait scale.

Table 11

Correlations Among Self-Directed Learning (SDL) Instruments and Hope Instruments

		Total Workplace Learning Hope	Total Hope Trait	Total LSWS[a]	Total SALT[b]
Total Workplace Learning Hope	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	130			
Total Hope Trait	Pearson Correlation	.699**	1		
	Sig. (2-tailed)	.000			
	N	127	127		
Total LSWS[a]	Pearson Correlation	.593**	.463**	1	
	Sig. (2-tailed)	.000	.000		
	N	130	127	139	
Total SALT[b]	Pearson Correlation	.589**	.538**	.598**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	130	127	130	130

**. Correlation is significant at the $p < .01$ level (2-tailed)

a. Learner Self-Directedness in the Workplace Scale

b. Survey of Adult Learning Traits

Research Question #3

Are there significant differences between self-directed learning in the workplace (SALT), learner self-directedness (LSWS), workplace learning hope, and selected participant characteristics in a sample of adult workers?

To analyze Research Question #3, Pearson's product moment correlations were computed. A correlation was computed for the demographic characteristics of the number of self-reported annual training hours and the number of self-reported annual SDL projects to the Workplace Learning Hope Scale and to each of the SDL scales. Additionally correlations were computed for the participant's perceived level of satisfaction with workplace learning and

perceived level of importance of workplace learning to the Workplace Learning Hope Scale and to each of the SDL scales.

Annual Training Hours and Annual SDL Projects. The Workplace Learning Hope Scale and the number of self-reported annual training hours were found to be positively correlated ($r = .198$, $p < .05$); however there was not a significant relationship between the Workplace Learning Hope Scale and the number of self-reported annual SDL projects (see Table 11). The LSWS was positively correlated with the number of annual training hours ($r = .027$, $p < .05$) and it was also positively correlated with the number of annual SDL projects ($r = .273$, $p < .01$) (see Table 11). However, there was no significant relationship between the SALT and either the number of annual training hours or the number of SDL projects (see Table 12).

Table 12

Correlations among Workplace Learning Hope, LSWS, SALT, Annual Training Hours, and Annual Self-Directed Learning (SDL) Projects

		Total Workplace Learning Hope	Total LSWS	Total SALT	Annual Training Hours	Annual SDL Projects
Total Workplace Learning Hope	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	129				
Total LSWS	Pearson Correlation	.596**	1			
	Sig. (2-tailed)	.000				
	N	129	139			
Total SALT	Pearson Correlation	.573**	.597**	1		
	Sig. (2-tailed)	.000	.000			
	N	126	127	127		
Annual Training Hours	Pearson Correlation	.198*	.207*	.128	1	
	Sig. (2-tailed)	.027	.020	.159		
	N	125	126	123	126	
Annual SDL Projects	Pearson Correlation	.135	.273**	.147	.230**	1
	Sig. (2-tailed)	.132	.002	.106	.010	
	N	125	126	123	126	126

**. Correlation is significant at the p < .01 level (2-tailed)

*. Correlation is significant at the p < .05 level (2-tailed)

Workplace Learning Importance and Satisfaction Levels. Following the format utilized for validating the Domain Specific Hope Scale and each sub-scale (Sympson, 1999), correlations between the participant's perceived level of satisfaction with workplace learning were assessed, as well as how the importance they assign to workplace learning relates to both workplace learning hope and self-directed learning. Participants were asked to rate on a scale of 1 (not at all important) – 5 (extremely important) how important workplace learning was to them. Additionally, they were also asked to rate their level of satisfaction with workplace learning on a scale from 1 (not at all satisfied) – 5 (extremely satisfied). Satisfaction levels have been shown to be positively correlated with the Hope Trait scale ($r = .38$, $p < .01$) and with the DSHS ($r = .63$, $p < .01$), while importance levels positively correlated with Hope Trait ($r = .71$, $p < .01$) and with the DSHS ($r = .97$, $p < .01$) (Sympson, 1999).

Lastly, domains where importance exceeded satisfaction were assessed. The new variable (dissatisfaction) was calculated by subtracting the satisfaction rating from the importance rating. A negative relationship between workplace learning hope and dissatisfaction would be expected. In the present study, satisfaction levels significantly positively correlated with Workplace Learning Hope ($r = .418$, $p < .01$), however there was not a significant correlation between dissatisfaction and Workplace Learning Hope (see Table 13) as expected from the results of the DSHS study (Sympson, 1999). Satisfaction also positively correlated with the LSWS ($r = .308$, $p < .01$) and with the SALT ($r = .491$, $p < .01$). Dissatisfaction was negatively correlated with the SALT ($r = -.207$, $p < .05$), however there was no significant correlation with the LSWS or with the Workplace Learning Hope Scale (see Table 14). The perceived importance of workplace learning was positively correlated with the Workplace Learning Hope scale ($r = .295$), with the

LSWS (r = .446), and with the SALT (r = .311). Although these results are significant at the .01 level, they are still lower in magnitude than comparable correlations in the DSHS study. See Tables 13 and 14 for specific findings.

Table 13

Correlations among Workplace Learning Hope, Importance, Satisfaction, and Dissatisfaction

		Total Workplace Learning Hope	Importance	Satisfaction	Dissatisfaction
Total Workplace Learning Hope	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	129			
Importance	Pearson Correlation	.295**	1		
	Sig. (2-tailed)	.001			
	N	125	126		
Satisfaction	Pearson Correlation	.418**	.236**	1	
	Sig. (2-tailed)	.000	.008		
	N	125	126	126	
Dissatisfaction	Pearson Correlation	-.155	.714**	.801**	1
	Sig. (2-tailed)	.084	.000	.000	
	N	125	126	126	126

**. Correlation is significant at the p < .01 level (2-tailed)

Table 14

Correlations among LSWS, SALT, Importance, Satisfaction, and Dissatisfaction

		Total LSWS[a]	Total SALT[b]	Importance	Satisfaction	Dissatisfaction
Total LSWS[a]	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	139				
Total SALT[b]	Pearson Correlation	.597**	1			
	Sig. (2-tailed)	.000				
	N	127	127			
Importance	Pearson Correlation	.446**	.311**	1		
	Sig. (2-tailed)	.000	.000			
	N	126	123	126		
Satisfaction	Pearson Correlation	.308**	.491**	.236**	1	
	Sig. (2-tailed)	.000	.000	.008		
	N	126	123	126	126	
Dissatisfaction	Pearson Correlation	.049	-.207*	.512**	-.714**	1
	Sig. (2-tailed)	.588	.021	.000	.000	
	N	126	123	126	126	126

**. Correlation is significant at the p < .01 level (2-tailed)

*. Correlation is significant at the p < .05 level (2-tailed)

a. Learner Self-Directedness in the Workplace Scale

b. Survey of Adult Learning Traits

Additional Participant Comments

Although not specifically addressed as a research question, the survey listed an optional section for participant comments. Following are all the comments received from the participants. Although there were not enough comments for a qualitative study analysis, the comments do provide some insight into the rationale for some the study responses.

Faculty comments**:**

> I am late-career, so my motivation to learn new skills might be somewhat affected by the stage of life.
>
> In my field, it is vitally important to research and learn new approaches and generate new theory for successfully mentoring students to success.
>
> Since I am 2 years from retirement, my energy is focused on investing in my students and their major. Not much focus on self improvement relative to their needs during this season of my life.

Staff comments:

> While my boss and I are open for me to continue my learning in relation to my position we are happy with my current work.
>
> having training seminars and such. are usually up to your superviser [sic] and or company you work for. in most cases they really dont [sic] want to spend money or time to have training seminares [sic]. i also do alot [sic]of floor installation on the side and i am always trying to learn new and better ways. but that is on me.
>
> My age is a factor; the fact that I am nearing full retirement contributes to my choices regarding pursuit of additional skills.
>
> My current job does not give me any information but for the moment. Therefore, very hard to preplan. I am also not used to my fullest potential. I will probably look for another position in current or another company in the next year.
>
> I do love to learn - about things that interest me; but, not stuff I don't feel is relevant or too taxing at this stage of my life! "This stage" happens to be wanting to retire and enjoy my grandchildren more!" And, admittedly, while I still have relatively good health. Due to this stage of life, I don't consider myself to be a very motivated "work related learner"

> but very motivated learner in other areas - travel, nature, nurturing, mentoring and spiritual awakening and obedience to the Lord.
>
> This survey has left me feeling somewhat inadequate.
> My ability and willingness to seek out new workplace learning opportunities for the past 3-5 years has decreased considerably due to the increasing responsibility I have to care for both of my aging parents.
>
> I work in athletics as the men's head basketball coach which includes strength and conditioning and health and fitness, so my job is always developing. I try to learn something daily in each of the categories, so learning is part of my job. However, I happen to love it so it doesn't always feel like work. It would be nice to be able to always put into practice knowledge from books, but time is often limited.

Student work-study workers:

> The more I learn about my job, the more I am motivated to do it well.
>
> I like to learn things about my work through experience and training, I do not like reading about it on my time. Probably because I am so busy with academics.
>
> My jobsite actively chooses not to train their employees.... and that is ridiculous.

One commenter who did not disclose their employment classification stated:

> Learning in the workplace is extremely important to me. Not all look at learning the same way. Some just want to do the job they have always done and not improve or change the way work is done. I am a retired teacher and always wanted to learn how to do things. I enjoyed the challenge most of the time.

Summary

In summary, 139 participants from a local private university from three employment classifications (faculty, staff, and student work-study worker) participated in this study consisting of four instruments and a demographic profile. All participants completed the Learner Self-Directedness in the Workplace Scale (LSWS), and 127 participants completed the other self-directed learning instrument, the Survey of Adult Learning Traits (SALT). One-hundred

twenty-two participants completed the Hope Trait scale and 129 participants completed the author-generated Workplace Learning Hope Scale.

The author-generated Workplace Learning Hope Scales was found to be a valid and reliable measure for hope within the domain of workplace learning. The instrument displayed high internal consistency reliability. It was designed similar to the format of the Domain Specific Hope Scale by revising items of the Hope Trait scale to the specific domain of workplace learning, establishing content validity. The Hope Trait scale measures the general trait of hope, while the Workplace Learning Hope Scale measures hope specific to the domain of workplace learning. Therefore it is expected that the Workplace Learning Hope Scale would correlate with the established Hope Trait scale. This study found that both hope instruments were significantly positively correlated with each other establishing concurrent validity.

Reliability was also established for each of other instruments utilized in this study. Each instrument had a Cronbach's alpha higher than the sufficient measure for reliability of .75, indicating that each instrument utilized in this study displayed high internal consistency reliability. Since both self-directed learning instruments were administered at the same time, both instruments measure the same concept, and the scores on the two instruments were significantly positively correlated with each other, convergent validity for these scales was also established.

Statistically significant positive relationships were found between the Workplace Learning Hope Scale and the Hope Trait Scale, the SALT, and the LSWS. Additionally, both self-directed learning instruments, the SALT and the LSWS, were also positively significantly correlated with each other.

The self-reported number of annual formal training hours was significantly positively correlated with the scores on both the Workplace Learning Hope Scale and the LSWS. The self-reported number of annual SDL projects was only significantly positively correlated with the LSWS. However, the SALT was not significantly correlated with either the number of annual training hours or the number of annual SDL projects. The participants' perceived satisfaction with their level of workplace learning was significantly positively correlated with the Workplace Learning Hope Scale, the LSWS, and the SALT. The participants' perceived importance of workplace learning was also positively correlated with the Workplace Learning Hope Scale, the LSWS, and the SALT. However, the new variable "dissatisfaction" was only significantly negatively correlated with the SALT but not with the Workplace Learning Hope Scale as expected. Chapter 5 brings the study to closure by providing a summary of the study, discussion of the results, implications of findings, and recommendations for further research and practice.

Chapter 5

Discussion

Chapter 1 addressed the statement of the problem, the purpose of the study, the significance of the study, the research questions, the limitations and assumptions of the study, and the definition of terms. Chapter 2 reviewed the literature, which considered self-directed learning in the workplace and hope within the workplace. Chapter 3 discussed the sample, instruments, and procedure used in the study. Chapter 4 reported the results and analysis of the data. This chapter begins with a restatement of the purpose of the study, research questions, method, and major findings. A discussion of the results will lead to a presentation of implications and recommendations for future research.

Purpose of the Study

The purpose of the study was to investigate the relationship between self-directed learning and hope in the workplace within a sample of adult workers. This study addressed the following research questions:

1. Is the Workplace Learning Hope Scale a valid and reliable measure for hope specific to the domain of workplace learning in a sample of adult workers?
2. Is there a significant relationship between self-directed learning and hope in the workplace in a sample of adult workers?
3. Are there significant differences between self-directed learning in the workplace, learner self-directedness, workplace learning hope, and selected participant characteristics in a sample of adult workers?

Summary of the Study

This study investigated the relationship between self-directed learning and hope in the workplace, using the Survey of Adult Learning Traits (SALT) (Hogg, 2008), the Learner Self-Directedness in the Workplace Scale (LSWS) (De Bruin & De Bruin, 2011), the Hope Trait Scale for adults (Snyder et al., 1991), the author-developed Workplace Learning Hope Scale, and selected demographic variables. One-hundred thirty-nine participants from two campuses of a local private university from three employment classifications (faculty, staff, and student work-study worker) participated in this study. All participants completed the LSWS, and 127 participants completed the other self-directed learning instrument, the SALT. One-hundred twenty-two participants completed the Hope Trait scale and 129 participants completed the author-generated Workplace Learning Hope Scale.

The author-generated Workplace Learning Hope Scale was found to be a valid and reliable instrument to measure hope specifically within the domain of workplace learning. The instrument displayed high internal consistency reliability. It was designed similar to the format of the Domain Specific Hope Scale by revising items of the Hope Trait scale to the specific domain of workplace learning establishing content validity. The Hope Trait scale measures the general trait of hope, while the Workplace Learning Hope Scale measures hope specific to the domain of workplace learning. Therefore it was expected that the Workplace Learning Hope Scale would correlate with the established Hope Trait scale. This study found that both hope instruments were significantly positively correlated with each other establishing concurrent validity.

Statistically significant positive relationships were found between the Workplace Learning Hope Scale and the Hope Trait Scale, the SALT, and the LSWS. Reliability was also

established for each of other instruments utilized in this study. Each instrument had a Cronbach's alpha higher than the sufficient measure for reliability of .75, indicating that each instrument utilized in this study displayed sufficiently high internal consistency reliability. Since both self-directed learning instruments were administered at the same time, both instruments measure the same concept, and the scores on the two instruments were significantly positively correlated with each other, convergent validity for these scales was established.

The self-reported number of annual formal training hours was significantly positively correlated with the scores on both the Workplace Learning Hope Scale and the LSWS. The self-reported number of annual SDL projects was only significantly positively correlated with the LSWS. However, the SALT was not significantly correlated with either the number of annual training hours or the number of annual SDL projects. The participants' perceived satisfaction with their level of workplace learning was significantly positively correlated with the Workplace Learning Hope Scale, the LSWS, and the SALT. The participants' perceived importance of workplace learning was also positively correlated with the Workplace Learning Hope Scale, the LSWS, and the SALT. However, the new variable "dissatisfaction" was only significantly negatively correlated with the SALT and not with the Workplace Learning Hope Scale as expected.

Implications

"As the idea of learning self-directedness becomes associated with the workplace, and as a result takes on additional economic value, the urgency to utilize all research into SDL is more pronounced" (Basket, Dixon, & Chuchmuch, 1994, as cited in Bromfield-Day, 2000, p. 91). One neglected area of research into SDL in the workplace that can help meet that urgent need is the

connection to hope, and also specifically to hope within the domain of workplace learning. The findings from this study address this gap in the research literature.

Self-directed learning in the workplace has not seen much recent interest within the workplace learning literature. Part of the explanation for the decline in SDL research within workplace learning publications may be a result of a lack of a valid SDL instrument designed specifically for the workplace. This study validated two relatively new SDL instruments designed specifically for the workplace: the SALT and the LSWS. Both instruments show promise to help inform future discussions of self-directed learning within the workplace.

This study found a significant but weak correlation between the number of self-reported number of SDL projects and the LSWS, but there was not a significant correlation with the SALT. Part of the explanation for the weak correlation to the LSWS and the lack of a significant relationship with the SALT may be a result of the organization's lack of support for continuing education for their employees. Campbell (2011) argued that if an employee is "likely to engage in self-directed learning they may be deterred if the organization is not supportive of their efforts or conducive of learning" (p. 96). The organization utilized in this study, despite being a university, does not currently have an employee training department or continuing education program for faculty or staff that may contribute to this study's findings.

There have been links made between self-directed learning and certain variables associated with positive psychology (Brockett, 2006). For example, self-directed learning has been significantly correlated with self-esteem and self-efficacy (S. Hoban & Hoban, 2004), resilience (Robinson, 2003), self-determination (Stockdale, 2003), life satisfaction (Brockett, 1985), and wellness and coping with chronic illness (Nelson, 2000; Owen, 1999). However,

Brockett (2006) suggested exploring the SDL and positive psychology connections further. This study further contributes to that knowledge base with the addition of a positive significant correlation between SDL and other positive psychology topics, the trait of hope and hope within the specific domain of workplace learning.

Relationships have been found between hope in the workplace and employee retention, job satisfaction, performance, work happiness, leadership, and organizational commitment (Luthans, Avolio, et al., 2007; Peterson & Byron, 2008; Peterson & Luthans, 2003; Searle & Barbuto Jr., 2011; Youssef & Luthans, 2007). Luthans (2002[b]) argues that hope is "exactly the type of positive psychological capacity for OB [organizational behavior] that is needed to be further explored and applied" (p. 701). This study adds self-directed learning and workplace learning hope to a list of variables that have been found to have a significant relationship with hope within the workplace.

Hope has also been studied within the context of specific domains. Sympson (1999) developed a Domain Specific Hope Scale with subscales consisting of the domains of social, academic, family, romance/relationships, work/occupation, and leisure activities. Although additional studies are indicated, the initial findings from this study validate a hope scale within the domain of workplace learning, further allowing for the measurement of an individual's level of hopefulness in another life domain.

Recommendations for Future Research

While the findings of this study offer some insight into the potential of hope specific to workplace learning that may be beneficial, there are several recommendations for future research. The current study was conducted in the southeast United States utilizing the faculty,

staff, and student work-study workers from two campus of a single private college university. Replication of the current study should be conducted outside this geographic area and/or utilizing another type of workplace setting to improve the generalizability of the findings.

The current study utilized quantitative methods to evaluate relationships between self-directed learning and hope specific to workplace learning. While this study provided information about relationships, it did not provide an answer to how the participants view workplace learning or self-direction. However, some participants in this study provided additional comments in an attempt to further explain their results. While these comments provided some insight, further research conducted using a qualitative method could provide valuable insight into the participants' view of workplace learning hope and self-directed learning within the workplace.

In the current study, the correlation between the number of formal training hours and the Workplace Learning Hope Scale, although statistically significant, was weak. The majority of the participants rated workplace learning as either very or extremely important and rated their level of satisfaction with workplace learning as either satisfied or very satisfied. However, the largest percentage of participants reported only having 0-12 annual formal training hours. Part of the explanation for the low number of self-reported annual formal training hours, despite the participants' satisfaction with and perceived importance of workplace learning, may be a result of this specific organization's lack of an internal formal employee training/continuing education program. Additional research is indicated with other organizations that have a more active internal formal training department to determine if the relationship between the instruments utilized and self-reported formal annual training hours would result in a greater correlation. Additionally, it would be important in future studies to make a distinction between participants

who self-report having no formal training hours from those who have few (1-12) annual formal training hours.

Tough's initial adult learning projects study found that the total sample averaged eight self-directed learning projects per person (1971). More recently, Harrison's study with small business owners had a mean of 6.8 learning projects conducted over the previous 12-month period (2010), and a study with graduate students found participants completed an average of 10.9 projects per year (Davis, Bailey, Nypaver, Rees, & Brockett, 2011). The number of annual self-directed learning projects from this study is within the range of these previous studies; however an exact number of self-directed learning projects per participant was not able to be determined in this study. One possible explanation for the weak correlation with the LSWS and the lack of a significant relationship between the SALT and the Workplace Learning Hope Scale with the number of self-directed learning projects may be a result of this specific organization's workplace learning culture. Subsequent studies with different samples are indicated to determine if the relationship between the instruments utilized and self-reported number of SDL projects would result in a greater correlation.

Self-directed learning in the workplace, as measured by the SDLRS (P. J. Guglielmino et al., 1987) found a significant positive relationship between self-directed learning and job performance as indicated by ratings on the participant's last performance appraisal. However, the SDLRS was not designed specifically to measure SDL within with workplace. Since this study further validated two SDL scales designed specific to the workplace, additional research utilizing these instruments to determine if a significant relationship still exists between self-directed learning and job performance would increase this body of knowledge as well as add to the

predictive validity of these instruments. Hope in the workplace has also been found to be found to have a significant relationship with job performance. While this study's focus was on the relationship between hope and self-directed learning, further exploration of the relationship between hope specific to the workplace and job performance would add to this body of knowledge. It is recommended that the Workplace Learning Hope Scale be used as a predictor for job performance to determine if a relationship also exists between hope specific to workplace learning and job performance.

A longitudinal study might unravel potential causality between the two constructs to determine, for example, if Hope leads to SDL or vice versa. Additionally, a study with other variables which might be related to these, such as a person's workload (if too overloaded, no time for SDL), level in organization, as well as other personality variables such as Locus of Control, Conscientiousness, Openness, and other positive psychology variables would also be recommended.

Conclusion

A review of the data contained in this research provides evidence for the presence of a new situational domain specific hope construct for workplace learning. The author-developed instrument designed to assess this new construct has demonstrated a reliable internal consistency, as well as concurrent and construct validity. As expected, the findings from this study support the hypothesis that an individual's level of hope specific to the domain of workplace learning varies relative to their level of the trait of hope. Further, correlations between this new construct and self-directed learning were established. Connections between the fields of positive psychology and self-directed learning are just beginning to be explored. It is hopeful that the

results of this study will open new avenues for research and practice further bridging the gap between these two fields.

A Personal Reflection

On a personal note, the journey of the reaching the goal of completing this dissertation has in itself been a study of hope. There have been times when I have had to call upon all my agency (willpower) resources and use all my pathways (waypower) skills in order to reach this goal. Willpower is that reservoir of commitment and energy that you can call on as you work toward your goal, the positive, energizing force within you that drives your goal pursuits. The most important willpower lesson I learned during this process is that "a change of any significance must be accomplished in small steps, with each step well in place before the next one is taken" (McDermott & Snyder, 1999, p. 120). Waypower is the perception that you can find ways to reach your goals. There have been many stumbling blocks in reaching this goal – some placed there by others and some of them I had inadvertently placed there myself. However, throughout the entire process, I always maintained the perception that I could find a way to reach this goal, but not without the assistance of the mentors who have helped guide my learning path and helped me to reach this monumental goal.

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Appendices

Appendix A. Email Solicitation to Johnson University

Dear Johnson University Professional:

You are being invited to participate in a research study to better understand workplace learning goals being conducted by Mrs. Vicki Dieffenderfer, a doctoral candidate and one of our staff member's wife. Vicki's research examines workplace learning goals and will use a sample of Johnson University faculty, staff, and student workers.

One potential benefit of this study is that the author plans to seek publication of findings. This can help extend the body of knowledge of workplace learning to other researchers and practitioners. By agreeing to complete this survey you acknowledge that the findings may be published, however published findings will not identify you in any way.

Provided at the end of this email is a link to her web-based survey which will take approximately 15 minutes to complete. For those who wish to participate, there will be a drawing for four (4) $25 bank cards (provided personally by Vicki Dieffenderfer) after the study is completed. Neither your name nor email address will be associated with the information you give in this web-based survey.

I hope you will please consider contributing to this important study. If you wish to participate, please click on the link provided below to be forwarded to the study:

https://utk.co1.qualtrics.com/SE/?SID=SV_eM72V3sqQdQON1j&Preview=Survey&BrandID=utk

Mark

Johnson UNIVERSITY TENNESSEE • FLORIDA • ONLINE

Mark F. Pierce, Ph.D.
Vice Provost for Research & Planning
865-251-2405
mpierce@johnsonu.edu

Appendix B. Informed Consent

INTRODUCTION

You are being invited to participate in a research study to better understand workplace learning goals. The objective of this study is to examine workplace learning goals.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY

If you choose to participate in this research study, you will be directed to a website to complete a web-based questionnaire which will take you approximately 15 minutes to complete. You will be asked to complete a demographic profile and four surveys. Completion of all instruments should take less than 15 minutes. Once you have completed the questionnaire, you may choose to have your name entered into a drawing for one of four (4) bank cards worth $25 each (see compensation section).

General reminders will be electronically sent to all participants after one and two weeks. Three weeks following the initial invitation, access to the website containing the questionnaire will be closed. At this point, analysis of the aggregated data will be conducted.

RISKS

There are no anticipated risks for participating in this study. The primary investigator information will be provided to you if you have questions or concerns (see contact information).

BENEFITS

One potential benefit of this study is that the author plans to seek publication of findings. This can help extend the body of knowledge of workplace learning to other researchers and practitioners. By agreeing to complete this survey you acknowledge that the findings may be published, however published findings will not identify you in any way.

Your participation is greatly appreciated.

CONFIDENTIALITY

The information in the study records will be kept confidential. The completed surveys will be stored on the University of Tennessee server until the research project is completed. After completion of the project, the data will be disposed of following the University of Tennessee's research protocol. The surveys will never be shared with your organization or any of its representatives. Results will be summarized so that no personal or individual answers can be identified in this dissertation. No reference will be made in oral or written reports which could link you to the study.

COMPENSATION

At the end of the questionnaire you will have the option to have your name entered into a drawing for four (4) bank cards worth $25 each. If you choose to enter the drawing, you will be linked to a separate website to enter your contact information. If you withdraw from the study prior to its completion, you will forfeit your entry into the drawing.

CONTACT

If you have any questions at any time about your study or the procedures, you may contact the researchers:

Vicki Dieffenderfer, GCDF, ABD
7513 Childress Glenn Lane
Knoxville, TN 37920
Phone: 865-951-3597
vdieffen@utk.edu

Dr. Ralph Brockett
University of Tennessee
A520 Jane and David Bailey Education Complex
1122 Volunteer Boulevard
Knoxville, TN 37996-3400
Phone: 865-974-2227
brockett@utk.edu

If you have any questions about your rights as a participant, contact the Office of Research Compliance Officer at (865)-974-3466.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Return of the completed web-based questionnaire constitutes your consent to participate. Once you have completed reading this page you need to choose between the two options below. If you choose to participate you will be linked to a separate website containing the online survey. If you choose not to participate, you will exit this website and not be included in the study.

- I have read the information provided and choose to participate in this study.
- I have read the information provided and do NOT wish to participate in this study.

Appendix C. Survey of Adult Learning Traits - SALT

1. I enjoy learning something related to my work.

2. I can put off doing something I want to do to study work related information.

3. I am ready to participate in training that helps me advance into a better and higher paying job.

4. I can manage my own efforts to learn outside of a classroom.

5. It is usually easy for me to learn something new.

6. I am good at finding helpful resources, such as books or people who can help me learn.

7. I can evaluate my progress towards learning new skills as I go along.

8. I am good at developing strategies for learning new material or skills.

9. I can change the way I study if what I am doing is not working.

10. I have personal time available that I can set aside for learning.

11. I feel encouraged by friends, family, or the people I work with to spend time learning something new.

12. There is somewhere I can go, which is a good place to study.

13. My workplace is free from distractions that interfere with learning new job skills.

14. I am not too tired after work to spend time learning something new.

(Hogg, 2008)

Appendix D. Permission to use SALT

Kenneth.Hogg@gulfstream.com (Kenneth.Hogg@gulfstream.com)
9/26/13

To: vdieffen@hotmail.com

Vicki,

I'm glad you find the instrument useful to your studies. You have my permission to use it in your research and dissertation. If you need a digital copy of it I will go through my files and send one to you. Otherwise you are welcome to reproduce it from copies or through software. I know Dr. Witte and I would be interested in seeing your results when you finish if you don't mind sharing. If you have any questions feel free to call or contact me anytime. Good luck on your research.

K. Shannon Hogg
ph 334-332-1741

Appendix E. Learner Self-Directedness in the Workplace Scale

1. I go out of my way to improve my work related skills.
2. I motivate myself to learn something new about my work.
3. I make a special effort to keep up with developments in my job.
4. I am constantly on the lookout for courses or books about my work.
5. I often read to improve my work-related knowledge and skills.
6. I frequently investigate opportunities to learn more about my work.
7. It is exciting to learn new things that widen my work-related skills.
8. I enjoy reading about different aspects of my work.
9. I am keen to develop my work-related knowledge and skills.
10. I get excited when I learn new skills.
11. I enjoy learning new things that contribute toward my work performance.
12. I often choose to learn new things about work even if it does not form part of formal learning situations.
13. I constantly try to keep up with developments in my field of work.

(De Bruin & De Bruin, 2011)

Appendix F. Permission to use LSWS

Karina De Bruin [JvR Academy] (karina@jvrafrica.co.za)
9/26/13

To: Vicki Dieffenderfer

Dear Vicki

It gives me great pleasure to hear that you are interested in using the Learner Self-Directedness in the Workplace Scale for your research. You are more than welcome to do so. Do you have the final items? I am currently on leave and unfortunately do not have access to the server where the items are stored. I am back at the office on Monday and can forward you them then.

I will be very interested to hear about your results.

Wishing you all the best.

Karina De Bruin

Appendix G. The Hope Scale (The Goals Scale)

1. I can think of many ways to get out of a jam.
2. I energetically pursue my goals.
3. I feel tired most of the time.
4. There are lots of ways around my problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem.
9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I set for myself.

(Snyder et al., 1991)

Appendix H. APA Approval to use Hope Scale

AMERICAN PSYCHOLOGICAL ASSOCIATION

INVOICE NO. **N/A**
Federal Tax I.D. 53-0205890
Date: March 25, 2014
IN MAKING PAYMENT REFER TO THE ABOVE

INVOICE NUMBER
Vicki M. Dieffenderfer
Department of Educational Psychology and Counseling
University of Tennessee
7513 Childress Glenn Lane
Knoxville, TN 37920

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Vicki M. Dieffenderfer

Applicant

March 25, 2014
Date

PERMISSION GRANTED ON ABOVE TERMS:

Karen A. Thomas

for the American Psychological Association

March 25, 2014
Date

Appendix I. Workplace Learning Hope Scale

1. I can think of many ways to find the work related information that I need.
2. I actively pursue learning topics that will assist me in the workplace.
3. There are lots of ways to meet the challenges of learning what I need in the workplace.
4. I can think of many ways to learn the information that is important to me in the workplace.
5. Even when a workplace learning topic does not interest me, I know I can find something good about it.
6. My past workplace learning experiences have prepared me to learn in the future.
7. I've been pretty successful learning the topics I need in the workplace.
8. I meet the workplace learning goals that I set for myself.

Appendix J. Demographic Profile Information

The information you provide below will be grouped with answers from other survey participants and can NOT be used to identify you.

Please tell me a little about yourself.

What is your gender?
- Male
- Female

What is your age?
- Under 21
- 21- 39
- 40-64
- 65 and older

Please tell me about your work experience.

What is your current employment classification?
- University Staff member
- University Faculty member
- University student worker

How many years of work experience do you have (with **any** organization)?
- 0-5
- 6-10
- 11-15
- 16-20
- 20+

How many formal training hours have you completed within the last 12 months?
- 0-12
- 13-24
- 25-36
- 37+

How many self-directed learning projects specific to a workplace skill/knowledge have you completed within the last 12 months? A self-directed learning project is any intentional, non-formal effort to learn a workplace skill/knowledge that you planned and controlled.

0-12
13-24
25-36
37+

Rate how important learning in the workplace is to you personally.

1	2	3	4	5
not at all important		moderately important		extremely important

Your satisfaction is a combination of your expectations and your performance. Keeping this in mind, please rate your level of satisfaction with learning in the workplace.

1	2	3	4	5
not at all important		moderately important		extremely important

Vita

Vicki Dieffenderfer was born and raised in Knoxville, TN. She attended the University of Tennessee for her undergraduate degree in Management with a specialization in Human Resources. She received her Master's degree from the University of Tennessee in Educational Psychology with a specialization in Adult Education. She completed her Ph.D. in Educational Psychology and Research, with a specialization in Adult Education and a Human Resource Development cognate, also at the University of Tennessee. Vicki has taught at Tusculum College in their Professional Studies program in Knoxville and Morristown. She currently teaches for Tennessee Technology University in the Interdisciplinary Studies program at the Oak Ridge, Crossville, and Scott County campuses as an adjunct instructor. Vicki currently lives in Knoxville with her husband, Darryl, and her Boston Terrier, Rocky. She has a daughter, Andrea Kelly, who lives in Laramie, WY with her husband, Mitchell. She also has a son, Patrick Space, who is a paramedic and lives in Tennessee. Vicki is the proud grandmother to Abby Space, Matthew Booker, and Alyssa Kelly.