CATERED LEARNING: AN ANTHROPOLOGICAL APPROACH TO UNDERSTANDING HOW LEARNING STYLES OF PARTICIPANTS AND TEACHING STYLES OF INSTRUCTORS AFFECT PARTICIPANTS' PERCEPTION, MOTIVATION, AND PERFORMANCE

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Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

December 2013

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Woodson-Mayfield, La Tonya R. Catered Learning: An Anthropological Approach to Understanding How Learning Styles of Participants and Teaching Styles of Instructors Affect Participants' Perception, Motivation, and Performance. Doctor of Philosophy (Applied Technology and Performance Improvement), December 2013, 194 pp., 10 tables, 52 figures, references, 148 titles.

Organizations rely on their training departments to deliver adequate training for effective use of knowledge on the job to new and tenured employees. The transfer of learned knowledge and skills yields many positive outcomes for the employees, the trainers, and the organization as a whole. Such outcomes include improved productivity and efficiency, increased morale, work enjoyment, improved customer service, and improved shareholder satisfaction. In order to achieve these outcomes, training departments must employ skilled training personnel knowledgeable about curriculum design and creative with training delivery and learning environments. These requirements implementation will depends heavily on the experience level of training professionals. Training professionals need to understand their own learning styles and how to appropriately utilize strategies to target the various learning styles that exist in the classroom. Instructors must constantly monitor the learning environment and be able to make immediate changes to meet the needs of the participants when necessary. Participants themselves play an integral role in the effective transfer of learning from the classroom to the job. Learners' backgrounds, life experiences, and motivation to learn are important considerations for designing a positive learning experience. When training programs cater to learners' preferred learning styles with an appropriate learning environment in mind, the instructor, the learner, and the organization reap

numerous benefits. More specifically, when learners' learning styles are supported by their instructors' teaching styles, the overall learning experience becomes optimized to the benefit of all stakeholders.

ACKNOWLEDGEMENTS

This has been an incredible journey! I owe it all to God in whom I have total faith. I am deeply grateful for the tears, sweat, and cheers I experienced with so many wonderful people. I could not have made it this far without them. My sincere appreciation goes to my awesome dissertation committee, Dr. Mickey Wircenski, Dr. Jerry Wircenski, and Dr. Mariela Nunez-Janes for their guidance, leadership, advice, and encouragement. A special thank you goes to my committee chair, Dr. Mickey, for her support, confidence, and candor throughout this journey. I offer a special thanks to the students and instructors as well as all of the participants in the study.

To my precious family, I express my heartfelt appreciation for traveling with me without detours or delays of the trip. They committed to ensuring my ability to reach the finish line. I offer an exceptional special thank you to my parents who never stopped believing in me and always expressed to others their pride in me. My utmost love and gratitude to Mama (Frances), Daddy (Charles), Nina, Taylor, and Guy for being my test cases and critic; for helping with numerous projects; for running errands for me all over town; for babysitting, chaperoning, and transporting kids for me; for cooking breakfasts, lunches, and dinners for me and my family; and for praying for me daily. I am grateful to all of you! Finally, to my husband Angelo and children Seth and Jaidyn, thank you for helping me balance work and life and for being selfless, caring, flexible, and understanding. I share this monumental achievement with you: I got this degree for you!

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CHAPTER 1

INTRODUCTION

Background

Organizations spend billions of dollars annually on employee training initiatives (Kalargyrou & Woods, 2011). In fact, the 2012 Training Industry Report presented by *Training Magazine* reported that the U.S. total training expenditures for 2012 was $55.8 billion. "Population growth, urbanization, and the increasingly diverse mixture of old and young workers will continue to transform the global workforce" (Holt & Seki, 2012, p. 32). While the increasing and inevitable onset of globalization, swift economic tides, and "exponential growth in technology advances" are trends that are perceived as being business as usual, organizations are pushing employees to become more progressive in their individual professional development in order to remain competitive (Kaye & Smith, 2012, p. 52). The current economic indicators have signaled a need for many organizational and training leaders to withdraw or reduce their training initiatives, as well as strategize on what new approach to take with training programs that remain untouched (Laff, 2008).

Strategic planning is one of the greatest resources that organizations employ to manage workforces more effectively. Some overarching trends that organizations as a whole face as a result of globalization and the sluggish recovery of the economy include strategies for scaling back on headcount, maximizing productivity, and being more specific with their learning agendas (Pace, 2011). Specifically, organizations are reexamining their training initiatives and being careful when choosing who to train and how much will be invested in training programs (Schramm, 2011).

Within small and large organizations, training departments and corporate universities play a significant role in the learning process and the effort to meet the operational and financial needs of the organizations they represent (Bhatti & Kaur, 2010). There is increasing pressure for organizations to prove that education and training investments will yield even greater returns. As such, organizations rely on their training and education programs to improve the skills of the employees that will, simultaneously, improve the company's bottom line (Kirkpatrick & Kirkpatrick, 2010). This creates a win-win situation and moves the organization closer to accomplishing its goals and objectives, as well as helping to improve employee performance (Bhatti & Kaur, 2010).

There is so much at stake for organizations to ensure that training initiatives are worth the investment. With greater scrutiny on training budgets, organizations have shifted into integrating training into their daily performance scorecards and acknowledge training as a development resource, rather than a defense against high turnover or attrition (Laff, 2008). The result is that more attention will be focused on ensuring that learners have an optimal training experience, even if there is a smaller budget to spend on fully developing the training programs.

To capitalize on their budgets, training professionals must be careful in what and how they train. Their training programs should be designed to benefit both the organization and the employees that participate in them. For training programs that are offered through non-profit organizations or other sponsoring, non-corporate agencies, it is also important that learning is optimized and that long-term transfer of training occurs. For most of these agencies, donations and other monetary support are determined by

the success rates of the training programs, which are meant as training interventions. Even when the training programs are informal, leaders expect some transfer of knowledge from the classroom that leads to increased productivity and improved performance on the job. A poorly trained workforce, on the other hand, shows negative impacts on business development in the U.S. "According to a survey conducted at the 2009 World Economic Forum, 12 percent of respondents said an inadequately trained workforce was a barrier to doing business in the U.S." (Laff, 2009, p. 24). For companies to have a competitive advantage in this ever changing economy, "employee training is necessary and important" (Steensma & Groeneveld, 2010, p. 319), but more attention will be focused on ensuring that learners are provided the best type of training experience (Morin & Renaud, 2004).

> Everything training does has to become more effective and efficient . . . Being effective means delivering training services that tangibly help businesses to achieve their goals. Being efficient means making the true costs of training clearly evident and highly acceptable. (Caudron, 2000, pp. 35-36)

It is not usual that organizations will never have to train their employees (Robinson, 2009); however, the need for training becomes increasingly significant as employees are challenged with requirements to improve their skill sets and work productivity in order to keep up with environmental and market trends and to remain competitive (Teck-Hong & Yong-Kean, 2012). Organizations must also commit to keeping up with current trends in the field of training and development and being creative and selective in their training plans (Schramm, 2011). One way is to offer training programs that match participants and instructors by their learning styles. When

such options are not available, it will be imperative for instructors to design and deliver training programs that target the multiple learning styles that exist in the classroom (Leong, 2005).

Organizations and training professionals must acknowledge that everyone learns differently or employs a different learning style (Alecu, 2011). Learning styles can be referred to as "the way each person concentrates on, processes, internalizes, and retains new and difficult academic information" (Seiler, 2011, p. 133). A preferred learning style is a "natural, mostly subconscious mode of information transfer" (Love, 2011, p. 88). To be competitive both globally and domestically in the U.S., managers and training professionals must recognize that, along with a diversity of backgrounds and skill sets, a diversity of learning styles also exists and that they should provide a myriad of training options for employees (McPherson & Willis, 2010). Training departments and corporate universities should not only be staffed with training professionals that are well versed in the concepts and processes they are training, but they should also be skilled at basic training philosophies, such as knowing their audience, including the participants' backgrounds, expectations and motivations, as well as how their participants prefer to learn. "Identifying the audience and its needs is important because good training builds on existing strengths" (Bixby, 2012, p. 62).

Training professionals must also cater to the product and program development needs of adult learners, thereby creating optimal opportunities for them to learn. "These must be provided in the best format possible for their individual learning styles and educational needs" (McGlone, 2011, p. 2). Unfortunately, many training professionals have the skills to do the job they are training, but lack the expertise in how to best

deliver that knowledge and make it stick (Massue, 2006). They also are not skilled at meeting each employee's learning ability and, very similar to traditional education, fail to adequately provide an optimal learning experience for all participants. For instance, teachers have a long held belief that when teachers work hard, their students should learn, and if the contrary occurred, then it was the student's fault, not the teacher's (Kaplan & Kies, 1995). Additionally, many instructors and leaders assume that everyone learns the same way they learn and, in turn, they instruct, lead and communicate in that manner. On the contrary, connections that are more meaningful occur when instructors learn how their participants learn and accommodate their various learning styles (Godfrey, 2010). For optimal learning effectiveness, as demonstrated by educational research and practice, learning in the classroom can be enhanced when the students' learning styles can be accommodated within the curriculum design (Buch & Bartley, 2002) and delivery. Further, people learn better if they are taught or presented with information in a style that is closely aligned with their own preferred learning style (Akella, 2010). "Without considering the learning styles of learners, it is not possible to provide them with healthy learning experiences" (Farooq & Regnier, 2011, p. 29).

Regardless of the type of organization that sponsors a training program, be it profit or non-profit, there are many factors that learning professionals should consider when working with multiple learning styles. One important factor is the essential set up of the learning environment. Instructors must be cognizant of classroom designs that will provide the best environment for effective transfer of learning. Depending on the type of training being delivered, such as technical or non-technical, the classroom should be set up in the most conducive manner for optimal learning (Sims, 2004). With

multiple distractions and interferences, both in and outside of the classroom, the learning transfer could be severely impeded and the detriment to the participant and the organization could outweigh the benefits. One example of a distraction is the participant's discomfort in the learning environment. According to Briody (1988), the socialization process of newcomers to an organization is complex because of existing cultural patterns and behaviors that may conflict with their new work environment.

Learner motivation is another factor in the transfer of learning. When participants are self-motivated to learn or encouraged to learn by others, then the outcome is positive. When participants are demotivated to learn, then the outcome is negative. "Although there are many factors affecting learning, motivation is the only one that stimulates learning effectively" (Chang & Chang, 2012, p. 285).

What or who ultimately determines the best type of training experience? Does that determination rest solely with the instructor to give their best training performance and hope that the participants will retain all the new knowledge and skills that they have just learned? Does it rest with the company or the sponsoring organization to provide a physical structure and comfortable atmosphere conducive to an optimal learning environment? Alternatively, does it rest with the participants to learn as much and as well as they can no matter what the physical classroom environment or instructor is like or what challenging lifestyles exist for them outside the classroom?

To analyze these learning challenges, it is important to understand how the participants' learning styles and the instructors' teaching styles interact and how the participants' perceptions of classroom environment and motivation to learning impact

the results of their learning experience. Specifically, this study will show how these factors impact participant learning in a corporate learning environment.

Significance of the Study

People are different in countless ways, from their backgrounds, experiences, talents, and skills to the more obvious in race, nationality, and color. Just as diverse as we are in the world and in the workplace, so are we as diverse in the classroom (Boyle, 2005). These differences include preferences in the way we take in and process information (Seiler, 2011). In other words, "we all learn differently" (Godfrey, 2010, p. 4). These preferences affect our motivation to learn, our attitudes and behaviors toward learning, and our reactions to various teaching styles. Even though classroom training is situational and different situations and learning environments have an effect on our learning preferences (Clifford & Thorpe, 2007), meaning that our learning preferences are subject to change just as often as situations and the learning environments change, training professionals should still consider the needs and interests of the learners to help them learn appropriately (Hillman, 1989). Cegielski, Hazen, and Rainer (2011) found that curriculum designed specifically toward a participant's learning style promotes better performance than when curriculum is not tailored toward a participant's learning style. Cegielski et al. further asserted that if "educators accept the challenge to teach them how they learn, our impact as educators may be greater and our students may be better prepared for the rigors of the profession into which they aspire to enter" (p. 10).

In a perfect world, instructors would teach and facilitate in the same way that their participants learn (Fatt, 2000). A study completed in 1982 at Purdue University

concluded that there is a link between teaching styles and learning styles and the link does indeed affect learning and attitudes in a positive way (Charkins, O'Toole, & Wetzel, 1985). However, the relationship between teaching and learning does not directly or naturally correlate because of the complex internal process of learning style differences (Kaplan & Kies, 1995). Many instructors struggle with how to reach the many learning styles and needs that exist in their classrooms (Nolen, 2003). Rather than attempt to reach those various learning styles, some instructors resort to using teaching techniques that match their own learning styles (Campbell, 1991). Taylor (1995) believed that it is easy to assume that a person's own preferred learning style is the most effective way to interact or communicate with others because our preferred learning styles are deeply ingrained. Conversely, when we do not consider the learning styles of all learners, providing healthy learning experiences is impossible (Farooq & Regnier, 2011). The discovery of the relationship between the learning styles of students and the learning styles of instructors will equip instructors with methods on how to design and deliver effective curricula for all students. Trainers and training designers must ensure that everyone has the opportunity to learn how to learn effectively (Honey, 2005), and there is a need for any type of instructor to take learning styles into account (Buch & Bartley, 2002).

Not only is managing learning styles in the classroom important, instructors also have to be mindful of the learning environment they create with such considerations as colors, spacing, seating, and noise levels for the physical aspect and an open, collaborative environment for the psychological aspect. "A climate for adult learning requires a relaxed, trusting environment with mutually respectful communication that is

positive and supportive" (McGlone, 2011, p. 4). Other considerations include the availability of technical equipment and proper training materials. Participants taking a computer word processing class, for instance, would expect to use computers to practice and complete exercises. Training materials also have to be appropriately written and tied to organizational goals and objectives and incorporate practical exercises for learning reinforcement. Because the stakes are so high in both education and the business arena, it is crucial that all participants receive optimal learning experiences for long-term success, no matter what life experiences they encounter outside the classroom.

Purpose of the Study

This case study examined the class participants' perceptions of learning, motivation, and performance and the class instructors' perceptions of teaching during and immediately after attending a 6-week corporate training program. Specifically, the purpose of this research was to determine (a) how instructors' teaching styles supported participants' learning styles and their perceptions of classroom environment and motivation to learning and (b) how the relationships between the instructors and participants impacted participant performance during the training program. The goal of training was to focus on the participant, not the instructor. However, it was also important to identify each instructor's teaching style to determine the style's impact or effectiveness on participants. This study's findings led to recommendations for training solutions to enhance training design and delivery, improve job performance, and increase motivation to learn.

An initial learning styles indicator/predictor was given to class participants, and a teaching styles indicator/predictor was given to instructors at the start of the course. The learning styles indicator/predictor measured participants' learning styles to determine their preferred or natural way of learning new things (Cegielski et al., 2011). The teaching styles indicator/predictor measured instructors' preferred teaching style. The participants also completed two Level 1 evaluations immediately following the course and three weekly Level 2 evaluations (also called assessments). At the end of the fourth week after the course, the participants completed one comprehensive Level 2 evaluation.

One of the Level 1 evaluations measured the participants' perceptions of their instructor, the course material, and the course experience. The other Level 1 evaluation measured the participants' perceptions of their co-instructor. The Level 2 evaluations measured their competence in certain topic areas and their overall performance and job readiness. Additionally, participant-observations and interviews were recorded, transcribed, and analyzed. All graded and scored Level 1 and Level 2 evaluations were presented for analysis.

Research Questions

The research questions that helped guide this informed case study follow.

Major Research Question

1. What do participants consider as an optimal learning experience?

Minor Research Questions

2. What do participants indicate for their preferred learning style?
3. What do participants indicate for their preferred classroom environment?

4. What do participants indicate for their motivation to learn?

5. What do instructors indicate for their preferred teaching style?

6. What strategies do instructors utilize that foster or inhibit the participants' learning optimization?

Limitations

Restrictions outside my control included the following:

1. This study was limited to the instructor-led classroom 6-week new hire training course at a corporate learning organization in the southwestern part of the United States.
2. This study was limited to participant-observations, interviews, activities, and performance during the 6-week new hire training period only. Post-training evaluations (Level 3) were not included in this study.
3. The experience level of the instructors providing the training was not known.
4. This study was limited to two Level 1 evaluations provided by the learning organization. The same Level 1 evaluations were provided to each participant.
5. Participants were not required to disclose their name or other identifiable information on the Level 1 evaluations.
6. Participants' prior knowledge of the course content was unknown even though a pretest was included within the course agenda.
7. The method of measuring achievement immediately following the course was limited to the first attempted Level 2 evaluation per topic and the first attempted Level 2 comprehensive evaluation, even when make-up tests were offered.

8. Generalizability and transferability may not be appropriate as the focus was only on the results of one 6-week corporate new hire training course in the southwestern part of the United States.

Delimitations

Restrictions I imposed on the study included the following:

1. This study was focused on one corporate learning organization located in the southwestern part of the United States.
2. This study was limited to the population of instructors and participants within the 6-week new hire training course.
3. This study was limited to a learning styles indicator/predictor at my discretion.
4. This study was limited to the Level 2 evaluations provided by and conducted by the learning organization.
5. This study was limited to the results of the Level 2 evaluations.
6. This study was limited to semi-structured interviews with participants and instructors and classroom observations.

Definition of Terms

Andragogy. The art and science of helping adults learn (Knowles, 1996). This term was originally coined in 1833 by Alexander Kapp, a German educationalist (Bedi, 2004).

Learning environment. The way in which the training classroom is physically designed (McNulty & Schmidt, 2005), as well as how inviting or uninviting opinions, ideas and values are shared, ultimately affecting the transfer of training and the perceptions the participants have regarding their learning (Sims, 2004).

Experiential learning theory. A learning style theory introduced by David Kolb in 1976 that suggests that learning takes place when knowledge is created through the transformation of experience (Mainemelis, Boyatzis, & Kolb, 2002).

Learning cycle. Introduced by David Kolb as a cyclical illustration of how learners process their learning (Kolb, 1984).

Learning strategies. How learners choose to deal with specific learning tasks (Bostrom & Lassen, 2006).

Learning Style Inventory. A psychometric instrument used in conjunction with David Kolb's experiential learning theory (Kolb, 1984).

Learning style. Learning styles are categories developed by educational researchers to classify learners based on their customary approach to perceiving and processing information (Kolb, 1984). It is the preferred way that individuals perceive and process information. "The distinctive behaviors which serve as indicators of how a person learns from and adapts to his environment" (Campbell, 1991).

Level 1 evaluation. An immediate measurement of participants' reactions and attitudes toward specific and overall components of the training program (Kirkpatrick & Kirkpatrick, 2006).

Level 2 evaluation. An immediate measurement of what the participants learned (the objectives) as a result of attending the training program, including new knowledge, skills and attitudes (Kirkpatrick & Kirkpatrick, 2006).

Level 3 evaluation. A measurement of how the participants' on-the-job behavior (OJB) changed as a result of them having attended and participated in the training

program. This evaluation is specific to measuring the transfer of knowledge from the context of training to the workplace (Kirkpatrick & Kirkpatrick, 2006).

Matching hypotheses. Coined by Kenneth and Rita Dunn, the term represents a belief that when the learning styles of students and their teachers match, the student will achieve greater success as opposed to when the students' and teachers' learning styles do not match (Dunn & Dunn, 1993).

Pedagogy. The art and science of teaching children that embodies teacher-focused education defines pedagogy (Kelly, 2006). "It assigns to the teacher full responsibility for making all the decisions about what should be learned, how it will be taught, and when that teaching will occur" (Bedi, 2004, p. 94).

Teaching styles. Teaching styles are categories developed by educational researchers to classify teachers and instructors based on their "instructional methods approach according to how well they address the proposed learning style components" (Felder and Silverman, 1988, p. 674).

Abbreviations

1. ILS is the Index of Learning Styles (Felder & Brent, 2005).
2. GRSLSS is the Grasha-Reichmann Student Learning Styles Scales (Grasha, 1996).
3. LSI is the Learning Style Inventory (Kolb, 1984).
4. PEPS is the Productivity Environmental Preference Survey (Boyle, 2005).
5. TPM is the teaching perspectives model (Pratt & Associates, 1998).
6. TSQ is the Teaching Styles Questionnaire (Evans et al., 2008).

Assumptions

The following assumptions were included in this study:

1. The Level 1 and Level 2 evaluations were used consistently in this corporate learning institution, including the new hire training classes.
2. The participants and instructors in this study were familiar with the components of a Level 1 evaluation and a Level 2 evaluation.
3. The participants and instructors in this study were not familiar with the components of the Index of Learning Styles indicator or the Grasha Teaching Styles indicator, respectively.
4. The instructors knew that a diversity of learning styles, experiences, and external challenges existed in each class.
5. The participants expected that at least one course content assessment would be given to measure the transfer of learning.
6. The instructors explained to the participants the general rules and expectations for completing the Level 1 and Level 2 evaluations prior to implementation.
7. The participants completed the Level 2 evaluations to the best of their abilities.
8. The participants met the minimum hiring qualifications to attend new hire training. These requirements included holding a high school diploma or general equivalency diploma, being at least 18 years old, and having 1 year of customer service experience.

Summary

Training investments at many organizations occur because of the need to have increased productivity and job satisfaction. Organizational leaders look closely at cost-benefit analyses and return-on-investment reports to address weaknesses in training functions or delivery methods. Because of market shifts and the recent downturn of the economy, both nationally and globally, organizational leaders are shifting priorities to ensure that training is provided to their workforce and delivered for immediate and effective transferability.

Chapter 1 provided a background on training and development programs at organizations. It also provided information on learning styles and the importance of understanding the effectiveness of managing the diversity of learning styles that exist in the classroom as well as the consideration for creating an effective classroom environment and addressing learner motivation for optimal learning experiences. Chapter 1 included the theoretical framework and models used to illustrate the basis for this study as well as the need and purpose for the study. Additionally, Chapter 1 stated the research questions and provided limitations, delimitations, definitions to key terms, and abbreviations. Chapter 2 includes a review of the existing literature related to this study.

CHAPTER 2

LITERATURE REVIEW

The purpose of this research was to determine (a) how instructors' teaching styles supported participants' learning styles and their perceptions of classroom environment and motivation to learning and (b) how the relationships between the instructors and participants impacted participant performance during the training program. Chapter 2 begins with an overview of the adult learning theory within the organizational training and development settings. Several studies show why training departments and corporate universities exist and what two of their most critical challenges are. These critical challenges include not meeting individual learning needs and ineffectively transferring learning from the classroom to production.

This literature review specifically highlights some of the current learning styles models and includes discussions of the matching hypotheses model, ideal classroom settings, learner motivation, learning environments, learning evaluation, organizational anthropology, ethnography as a qualitative data tool, and how each one impacts the transfer of learning.

Theoretical Framework

Adult Learning

The adult learning theory was pioneered by Malcolm S. Knowles in 1975, a well-known educator and adult education researcher. Knowles insisted that adult learners' learning preferences differ from the learning preferences of children. He published 19 books and over 230 articles regarding adult learning principles and processes.

Knowles (1996) popularized the term, andragogy, which means the art and science of helping adults learn. Rather than requiring a focus on the content as the pedagogical approach suggests, the andragogical approach requires a focus on the process, as adult learners take responsibility for their own individual learning (McGlone, 2011). For his many contributions to the study and development of adult learning and adult education, Knowles has been appropriately titled the *father of adult learning*.

For the most part, adult learning today is delivered through corporate training programs and courses offered by higher educational institutions. In a discussion on how to apply adult learning principles, Saunderson (2011) suggested that training professionals provide clear learning objectives and roles, vary learning objectives often, and recognize participants for completing tasks. Additionally, Saunderson (2011) thought training professionals, as much possible, should "create and allow opportunities for groups to draw upon each person's life and work experiences" (p. 79). Another important component in adult learning theory involves adults learning more deeply, performing more effectively, and retaining more information when they directly contribute to the development of the learning curriculum or learning process (Edwards, 2010).

Pedagogy contrasts with andragogy. In pedagogy, adults are presumed to learn differently than children (Fernando, 2011). Pedagogy literally refers to the art and science of teaching or educating children (Morris & Wood, 2011). Pedagogy has also been more recently labeled learning how to teach (Minter, 2011). For many years, pedagogy represented the established model of how children learn in formal educational institutions. Basically, pedagogy is traditional education.

In this model and as similarly described in Paulo Freire's book, *Pedagogy of the Oppressed,* and in his essay titled, "The Banking Concept of Education," students are very dependent on the teacher and receive and learn what the teacher provides as instruction (Freire, 1993). In the teacher-centered instructional environment (TCI) of pedagogy, the focus is on the teacher. The teacher talks and the students listen (Minter, 2011). More specifically, teachers follow prescribed lesson plans without deviating from them and require the children to memorize, recite, and regurgitate exactly what and how the teacher says. Students may not offer their own perspectives on any given topic. They must learn the content as instructed by the teacher, regardless of the content's value, interest, or accuracy to the students.

This controlled learning model was even supported by educational psychologists, who cared less about what was being learned and more about how controlled the delivery of the lesson was. Freire's term of the *banking concept of education* extends this notion that the teacher's role involves depositing knowledge into the students' empty minds, just as people deposit money into bank accounts. Further, teachers represent oppressors to their students by possessing knowledge that they deposit into their passive and ill-informed students (Micheletti, 2010). Freire countered the banking concept of education by introducing the problem-posing education model in which students' prior knowledge is recognized and appreciated and the classroom is less structured. As a result, both teacher and student become active participants in the classroom by enriching and learning from each other (Freire, 1993).

When adult education was introduced in the first quarter of this century, it relied heavily on the pedagogy model with very poor results. Researchers from various

disciplines began to study how adults learned best and realized that adults wanted more participation in the learning process and independent studies. "The andragogical theory of adult human learning basically recognizes that adults have, and seek to develop, independence in their method of learning" (McGlone, 2011, p. 3). Children begin education as dependent learners in need to teachers following pedagogy. As children mature into adults, the need for dependency dissipates and shifts toward self-directed learning (see Table 1).

Table 1

Banking Method Pedagogy versus Andragogy

Construct	Banking Method Pedagogy	Andragogy
Concept of the Learner	Dependent	Self-directed
Focus of the Learning	Foundation	Application
Learning Orientation	Knowledge for Later	Competency for Today
Role of the Instructor	Director/Expert	Facilitator/Resource

The two main components of adult learning are self-direction and the expectation for adults to take responsibility for their own actions (Cotton, 2004). In addition to these main components, Kelly (2006) summed up Knowles' adult learning theory as including the following:

- Adult learners bring a great deal of experience to the learning environment
- Adults expect to have a high degree of influence on education topics and how they are to be educated
- Adults require active participation in designing and implementing their educational programs

- Adults must see the relevancy of new learning
- Adult learners expect to have a high degree of influence on how learning will be evaluated
- Adults expect their feedback to lead to program progress and change

The assumptions made about andragogy have several implications for training and development. Adults participating in training aligned with andragogical assumptions "are more likely to retain and apply what they have learned" (Quinney, Smith, & Galbraith, 2010, p. 206). Further, how curriculum and program development is approached is determined by the type of group, whether adult learners or child learners, for whom the content is intended (Welty, 2010). Therefore, when teachers fail to shift teaching strategies to adjust to learners a learning mismatch occurs (Bedi, 2004).

Both andragogy and pedagogy models have become commonly used on a case-by-case or situational basis. In essence, both could be used for the same situation, whereas in earlier times, the models were based on age. Knowles (1996) believed that no one model can meet the needs of any entire group based on age and many other criteria (Knowles, 1996).

Learning Styles

As the Chinese Philosopher Confucius said, "I hear and I forget, I see and I remember, I do and I understand." The process of knowing and learning happens to be one of the most significant processes in a person's life. Each person is born with a unique set of characteristics, including how to learn (Farooq & Regnier, 2011). Although no unified or standard definition of learning styles exists (Santo, 2006), many researchers have provided acceptable descriptions of learning styles. According to

Okanlawon (2006), the term learning styles describes the attitudes and behaviors that determine the preferred way of learning of an individual. Additionally, learning style can be defined as "an aggregate of construct of cognitive, affective, and psychological factors that provide insight into how an individual responds to a specific pedagogy" (Cegielski et al., 2011, p. 136).

Various learning styles are represented in all cultures (Dunn & Griggs, 1996). For example, the Swedish Learning Styles Center works with companies that desire individualized and learning styles training. The center interprets participants' learning styles (Boyle, 2005). In addition to culture, learning styles often vary with age, achievement level, global versus analytic processing preference, and gender (Shaughnessy, n.d.). Learning style preferences indicate that the preferred way that one person learns is different from the preferred way another person learns (Mumford, 1995). Felder and Brent (2005) believed that students preferentially focus on different types of information and tend to operate on perceived information in different ways. According to Dunn and Griggs (2000), "learning style is the way students begin to concentrate on, process, internalize, and remember new and difficult academic information" (p. 8).

Although learning styles are generally characterized as cognitive, affective, and psychological behaviors that indicate how learners perceive, interact with, and respond to learning environments (Fatt, 2000), learning styles have been commonly categorized as visual (seeing), auditory (hearing), tactile (hands-on involvement), and kinesthetic (touching; Boyle, 2005). The four different constructs of learning styles include the level of engagement (active-reflective), affinity for abstraction (sensing-intuitive), preferred

input methodology (visual-verbal), and perceptual capabilities (sequential-global; Cegielski et al., 2011).

All people are different; everyone learns differently (Farooq & Regnier, 2011). “A group of learners will not be homogeneous in the way they learn” (Okanlawon, 2006, p. 339). Learners have different learning abilities and individuals learn better using their preferred learning styles (Okanlawon, 2006). Hayes and Allinson (1997) suggested that learning style is comprised of learner characteristics that can greatly impact learning achievement.

Regarding learning styles within training environments and management education, trainers should consider the learning styles of their students when developing, designing, and delivering programs (Robotham, 1995). Trainers must identify their students’ needs and interests to provide the most appropriate strategies for helping them learn (Hillman, 1989). Robust learning models need to be built through understanding of students’ needs and different cognitive styles (Chen & Macredie, 2002) in order to ensure optimal learning (Cotton, 2004). Even with the many years of research and the widespread belief that trainers or instructors should design and deliver curriculum the way learners prefer, a growing body of evidence has begun to suggest otherwise. In more recent finding, learners who preferred to learn in a particular way actually performed much lower than learners who indicated no preference in the way they learned. Interest in exploring the benefits and casualties of teaching to individuals’ unique learning styles has been renewed (Samms & Friedel, 2012).

There were more than 21 learning styles models in 1991 (Santo, 2006). Now, there are more than 70 learning styles models, and several offer conflicting assumptions

and competing ideas about learning (Bostrom & Lassen, 2006). Additionally, a number of commercially published tools or instruments have been used by researchers to assess learning styles' different dimensions (Cegielski et al., 2011).

One of the earliest known learning styles theorists was David Kolb, who introduced experiential learning theory (ELT) in 1984. "Experiential Learning Theory defines learning as the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (Kolb, 1984, p. 41). Kolb and Kolb (2005) discussed experiential learning grounded in the following six basic principles:

1. Learning is a process
2. Learning is relearned, that is, new learning occurs when students integrate their prior understanding with the new material
3. Learning occurs as the resolution of conflicts between reflection and action, and between feeling and thinking
4. Learning is a holistic process of adaptation to the world
5. Learning occurs as existing concepts dialectically interact with new experiences
6. Learning involves creating knowledge rather than transmitting it

A supplement to ELT is Kolb's Learning Styles Inventory (LSI), the most prominent instrument used to measure learning styles. The LSI asks participants to complete 12 sentences that describe learning. The LSI is a self-descriptive, self-administered forced-choice ranking scale to measure an individual's orientation toward preferred learning modes (Mainemelis et al., 2002). Specifically, the LSI is "used to

match different student learning styles to complex subject matters, understand individual preferences for certain learning experiences and the adoption of different teaching methodologies which suit various learning styles" (Akella, 2010, p. 100). Both the ELT and LSI provide information about how participants take in and process new information (McCarthy, 2010). They are used to help participants "understand their strengths and weaknesses in decision-making and problem solving by observing their inclination toward action or reflection and the ability to make decisions or avoid or procrastinate on them" (White, 1992, p. 55).

The ELT model presents a four stage learning cycle, including the two complementary modes of grasping experience know as concrete-experience (CE) and abstract conceptualization (AC) and the two complementary modes of transforming experience known as reflective observation (RO) and active experimentation (AE; Webb, 2006). In other words, the learner must be able to (a) get involved fully, openly, and without bias in new experiences, (b) reflect on and interpret these new experiences from different perspectives, (c) create concepts that integrate these observations in logically sound theories, and (d) use these theories to make decisions and solve problems leading to new experiences (Sims, 1983). Further, the resulting four learning styles include convergers, accommodators, divergers, and assimilators (Akella, 2010). Additionally, the LSI can increase a person's awareness of his or her own preferred learning style or of the learning styles of others and the degree of preferences for any one of the four modes (White, 1992).

To illustrate his model, Kolb proposed that learning styles could be viewed as a cyclical process of learning experiences (see Figure 1; Akella, 2010). Learners start at

one point on the learning cycle and work their way around it (Cotton, 2004). This cycle of learning is known as the four-stage cycle of learning and considered Kolb's central ELT principle (Webb, 2006). Additionally, although learners can enter the cycle at any point (Akella, 2010), they must repeatedly go through the entire cycle in sequential order for effective learning to occur (McCarthy, 2010). The learning cycle can be summarized by providing feedback, which then promotes new actions and evaluation of what the action produces (Akella, 2010). Quay (2003) supported Kolb's ELT argued that is imperative to make necessary adjustments in learning based on experience. What makes ELT so important to the field of learning and development is hands-on practical exercise and experience, both of which are closely in sync with real world, industry-level learning (Healy, Taran, & Betts, 2011).

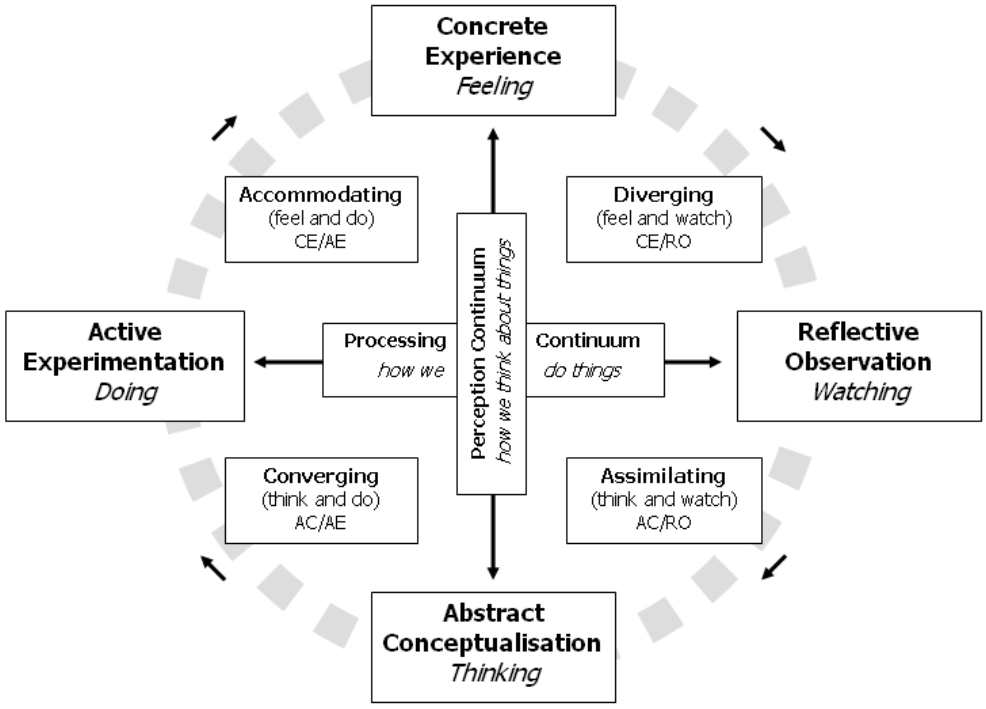


Figure 1. Diagram of Kolb's learning cycle.

In addition to the widely known LSI, Kolb and his colleagues designed two other learning styles instruments that complement Kolb's ELT. The two additional instruments are the Adaptive Style Inventory and the Learning Skills Profile. In a research study, a workshop was delivered titled, "Understanding Learning Styles for Professionals and Management" to introduce ELT and LSI together as an approach to professional development. Participants responded very positively about the workshop due to being more aware of their learning styles and the impact of this awareness on how they interacted with others and solved problems. They also reported being intrigued about the relationship between learning and growth and development as well as acknowledged experiencing conflicts between their preferred learning styles within themselves and with others (White, 1992).

Several other prominent models of learning styles have been designed following Kolb's original groundbreaking model, including the Honey and Mumford Learning Styles Questionnaire (LSQ). The LSQ consists of 80 questions, divided into the four learning styles with 20 questions per learning style (Charlesworth, 2008). The LSQ embraces the processes involved in all types of learning, whether solitary or shared and on the job or off the job (Mumford, 1995). The four distinct styles of learning are activists (experimentation); reflectors (observation); theorists (conceptualization); and pragmatists (experience; Akella, 2010; Cotton, 2004).

Activist learners prefer to learn by working with others, having flexibility in their schedules, and taking on new challenges and experience. Reflector learners prefer to reflect on their prior learning experience, observe and listen and make strategic, carefully thought-out decisions. Theorist learners prefer to learn when they can analyze

information and plan accordingly. Pragmatist learners prefer to learn by trying new approaches and being able to apply their real-world experiences (Orawiwatnakul & Wichadee, 2011). Charlesworth (2008) used the Honey and Mumford LSQ to measure the relationship between culture and learning. They found support for the relationship between learning style preference and cultural background (Charlesworth, 2008).

Richard M. Felder and Linda Silverman introduced a learning style model. The 1988 Felder-Silverman learning style model was originally tested on engineering students and used in technology-based learning (Graf, Viola, Leo, & Kinshuk, 2007), but it can be adapted for any adult learning program. The model distinguishes between "preferences on four dimensions" (Graf et al., 2007, p. 3). The four main elements of the Felder-Silverman Model are the four opposing learning style dimensions, the five questions that define a participant's learning style, the five questions that define a teaching style (discussed further in *Teaching Styles*), and the Felder-Solomon Index of Learning Styles (ILS).

The Felder-Silverman learning style model's four opposing learning style dimensions are sensing–intuitive; visual–verbal; active–reflective; and sequential–global (Felder & Spurlin, 2005). The sensing learner prefers "facts, details, and well established procedures" while the intuitive learner prefers "concepts, theories and innovation" (Santo, 2006, p. 83). The visual learner prefers "pictures, diagrams, films, and demonstrations" while the verbal learner prefers "written or spoken information" (Santo, 2006, p. 83). The active learner prefers "to try out things and work with others" while the reflective learner prefers "to think things through and work alone" (Santo, 2006, p. 83). Finally, the sequential learner prefers "to learn in small incremental linear

steps" while global learners prefer "to learn in large leaps of thought and like to see the big picture" (Santo, 2006, p. 83).

In order to determine a preferred learning style, Felder and Silverman (1988, p. 675) suggested asking the following five questions:

1. What type of information does the student preferentially perceive? Is it sensory (external) via sights, sounds, or physical sensations; or intuitively (internal) via possibilities, insights, or hunches?
2. Through which sensory channel is external information most effectively perceived? Is it auditory through words and sounds, or visual through pictures, diagrams, graphs, and demonstrations?
3. With which organization of information is the student most comfortable? Is it inductive meaning facts and observations are given, and underlying principles are inferred; or deductive meaning principles are given, and consequences and applications are deduced?
4. How does the student prefer to process information? Is it actively through engagement in physical activity or discussion, or reflectively through introspection?
5. How does the student progress toward understanding? Is it sequentially in continual steps, or globally in large jumps, holistically?

Along with the Felder-Silverman learning style model was the development of the Felder-Solomon's Index of Learning Styles (ILS) in 1991, a psychometric assessment instrument developed by Felder and Soloman to evaluate learning style preferences using the model's four dimensions (Felder & Brent, 2005). The assessment instrument,

was later revised to its current version in 1994 and includes 44 forced multiple-choice questions separated equally among the four learning style domains (Cegielski et al., 2011).

The purpose of using the ILS is to provide guidance to instructors on the diversity of learning styles within their classes and help instructors design instruction that addresses the learning needs of all their student and to give individual students insights into their possible learning strengths and weaknesses (Felder & Spurlin, 2005, p. 110). The ILS is a widely used and proven instrument to identify learning styles (Graf et al., 2007). Litzinger et al. (2007) and Cegielski et al. (2011) reported that the ILS has satisfactory internal consistency reliability and its validity is strong and that there is no need to improve the instrument.

Another learning style model is Carl Jung's theory of psychological types (JTPT), which attempts to categorize participants in terms of their primary modes of psychological functioning. Jung proposed the two basic attitudes of behavior as extraversion (E) and introversion (I). Jung referred to the four basic functions of orientation as sensation (S); thinking (T); feeling (F); and intuition (N).

The combination of the opposing attitudes and orientation preferences create eight different psychological types (Haber, 1980). Based on Jung's four dichotomous dimensions, the Myers-Briggs Type Indicator (MBTI) is another learning model, which assesses personality types, yet tends to have strong learning style implications. The MBTI is a 126 item forced-choice questionnaire that produces 16 personality types between four pairs of eight different preferences. The first pair is extroversion versus introversion. The second pair is sensing versus intuition. The third pair is thinking

versus feeling, and the fourth pair is judging versus perceiving (McPherson & Mensch, 2007). The description of each preference pair is shown in Table 2.

Table 2

Myers-Briggs Type Indicator Personality Types

Opposing Attitudes/ Preferences	Type	Description
Extroversion-Introversion	Extroverts	Try things out, focus on the outer world of people
	Introverts	Think things through, focus on the inner world of people
Sensing-Intuition	Sensors	Practical, detail oriented, and focus on facts and procedures
	Intuitors	Imaginative, concept oriented, and focus on meanings and possibilities
Thinking-Feeling	Thinkers	Skeptical, tend to make decisions based on logic and rules
	Feelers	Appreciative, tend to make decisions based on personal and humanistic considerations
Judging-Perceiving	Judgers	Set and follow agendas, seek closure even with incomplete data
	Perceivers	Adapt to changing circumstances, postpone reaching closure to obtain more data

Note. Table adapted from Felder and Brent (2005, p. 59).

Anthony Grasha (1996) developed the learning style model that led to the Grasha-Riechmann Student Learning Style Scales which was designed with Sheryl Riechmann (GRSLSS). The GRSLSS is a 60-item questionnaire used to differentiate several types of learning style preferences in college and high school students. The GRSLSS "measures learning styles as personal qualities that influence a student's ability to interact with peers and the teacher, and otherwise to participate in learning experiences" (Yazici, 2005, p. 222). The GRSLSS "promotes understanding of learning in a broad context," and the six learning style preferences are participant, avoidant, collaborative, competitive, independent, and dependent (Yazici, 2005, p. 222).

The learning styles can be described as the participant learner eagerly participates in content discussions and readily asks questions; the avoidant learner avoids doing as much work as possible or procrastinates; the collaborative learner enjoys working with others; the competitive learner strives to perform better or do more work than others; the independent learner prefers to work alone and rarely asks for help; and the dependent learner relies on help from others and needs detailed instructions (Santo, 2006). One criticism with the GRSLSS is little construct validity and the lack of evidence for the relationships between grades and attitudes with any of the learning styles, such as the case in a 2001 study of business and humanities college students enrolled in an online advanced composition course (Santo, 2006).

The Guglielmino Learning Style Inventory measures problem solving, creativity, and change to determine the readiness of the individual for self-directed or self-paced instruction (Ament, 1990). The Jacobs-Fuhrmann Learning Inventory diagnoses the three styles of learning as dependent, collaborative, and independent. This tool is especially useful in corporate training because it measures both the trainer's learning style and the trainee's learning style (Ament, 1990).

Teaching Styles

Li-Fang (2004) contends that literature is lacking on the study of the relationships between the participants' preferred learning styles and their preferred teaching styles. Li-Fang further asserted "there is also no research on the relationships between individual differences in learning styles and their conceptions of an effective teacher" (p. 234). However, in addition to understanding the learning styles of students, another important component in trying to improve the classroom educational experience is to

understand the teaching style preferences of students (Richardson, Kring, & Davis, 1997).

There are many non-conclusive definitions of teaching styles; however, one widely accepted description of teaching styles is “a teacher’s personal behaviors and media used to transmit data to or receive it from the learner” (Kaplan & Kies, 1995, p. 29). One component of fostering a positive classroom learning experience includes the techniques the facilitator uses in the classroom to promote interest in the learning (Leong, 2005). The various reasons why participants take a certain course include self-motivation and attitude toward the learning which may be negative or positive. Leong (2005) suggested that instructors employ techniques as defining success (as it relates to completing the course), using creativity in the course design and facilitation, understanding the learning process and knowing the participants (i.e., their interests, motivations, concerns, etc.) to help stimulate the participants’ interest in learning and promote a positive learning environment.

Just as there are a number of definitions for teaching styles, there is also a diversity of ways to measure teaching styles (Evans et al., 2008). For example, in a study conducted on students in upper level English courses, students preferred student discussion groups to lecture styles of teaching. In another study of teaching styles and the relationship between teaching styles and teachers’ cognitive styles among Canadian public school teachers, the Teaching Styles Questionnaire (TSQ) and two other instruments were used. The TSQ, a 34-question instrument, measured four distinct factors of teaching styles known as structure, sociability, formality, and caution (see

Table 3). The TSQ was reliable for identifying teaching styles with an internal consistency score of .88 (Evans et al., 2008).

Table 3

Teaching Styles Questionnaire (TSQ)

Teaching Style	Description
Structure	Focuses on thoroughness, planning, assessment and organization
Sociability	Focuses on being outgoing, personal, individualistic and social
Formality	Focuses on rules, procedure, discipline and feedback
Caution	Focuses on rationality and reflectivity

Another study conducted on college students in physical activity classes evaluated students' preferences for teaching styles. Muska Mosston developed the Spectrum of Teaching Styles in 1966 to introduce and champion new theories of physical education. The model includes 10 teaching styles "based on the degree to which the teacher or the student assumes responsibility for what happens in a lesson" (Doherty, 2010, p. 5). Each style is on a continuum from a teacher-centered approach toward a learner-centered approach and is labeled with a sequential letter of the alphabet. The three teaching styles exhibited by the participants in the study were Style A of command, Style C of reciprocal, and Style E of inclusion. A description of each style is included in Table 4. Cai (1997) concluded "student attitude toward teaching is essential in determining teaching and learning effectiveness, because a connection between the teacher's behaviors and students' feelings evolves" (p. 251).

Table 4

Mosston's Teaching Styles

Teaching Style	Style A of Command	Style C of Reciprocal	Style E of Inclusion
Teacher's Role	Make all decisions	Make all decisions and provide feedback to observers	Allow participants to choose how they wish to participate based on the teacher's design of the task
Learner's Role	Follow all decisions on cue	Learners work together and provide feedback to each other (Doer)-Perform task while making nine impact decisions; (Observer)-Offer immediate and on-going feedback to the doer using a criteria sheet	Learners of varying skill levels participate in the same activity (individualized) by selecting the level of difficulty at which they wish to perform (learner selects own level of entry) Learners self-monitor and judge themselves

In a monograph produced by the Mountain Area Health Education Center (MAHEC) Office of Regional Primary Care Education (1998) that was designed for physicians, physician assistants, and nurse practitioners teaching medical students in hospital settings in North Carolina, the teaching styles were presented to help them assess how their teaching styles influenced students. The participants in the class completed the Teaching Styles Self-Assessment Tool, which provided the following four categories of teaching styles, including assertive, suggestive, collaborative, and facilitative. The four teaching styles were presented in the monograph and are summarized in Table 5.

Table 5

MAHEC Office of Regional Primary Care Education's Teaching Styles

Assertive	Suggestive	Collaborative	Facilitative
Giving directions	Suggesting alternatives	Eliciting and accepting learner ideas	Eliciting and accepting learner feelings
Asking direct questions	Offering opinions	Exploring learner ideas	Offering feelings
Giving information	Relating personal experiences (modeling)	Relating personal experience (by showing empathy)	Encouraging learners
			Using silence

Note. Table adapted from MAHEC Office of Regional Primary Care Education (1998, p. 8).

Both the assertive teaching style and the suggestive teaching style are teacher-centered. Using the assertive approach, the instructor gives information in a direct manner. Rather than being direct, the instructor uses the suggestive approach to offer opinions and practical experience, as well as suggests alternatives or make recommendations using his or her personal experience. The collaborative teaching style and the facilitative teaching style are both learner-centered. The collaborative instructor accepts the participants' ideas and seeks to explore their ideas with empathy and an exchange of experiences. The facilitative instructor shares personal experiences and feelings with the participants that extend beyond the course content (Langlois et al., 2001).

Richard Felder and Linda Silverman introduced a teaching style model when they created the Felder-Silverman learning style model in 1988 (Figure 2). They suggested that most of the learning styles and teaching styles parallel each other, with the

exception of active-reflective learning style dimension and the active-passive teaching style dimension as they do not exactly correspond (Felder & Silverman, 1988).

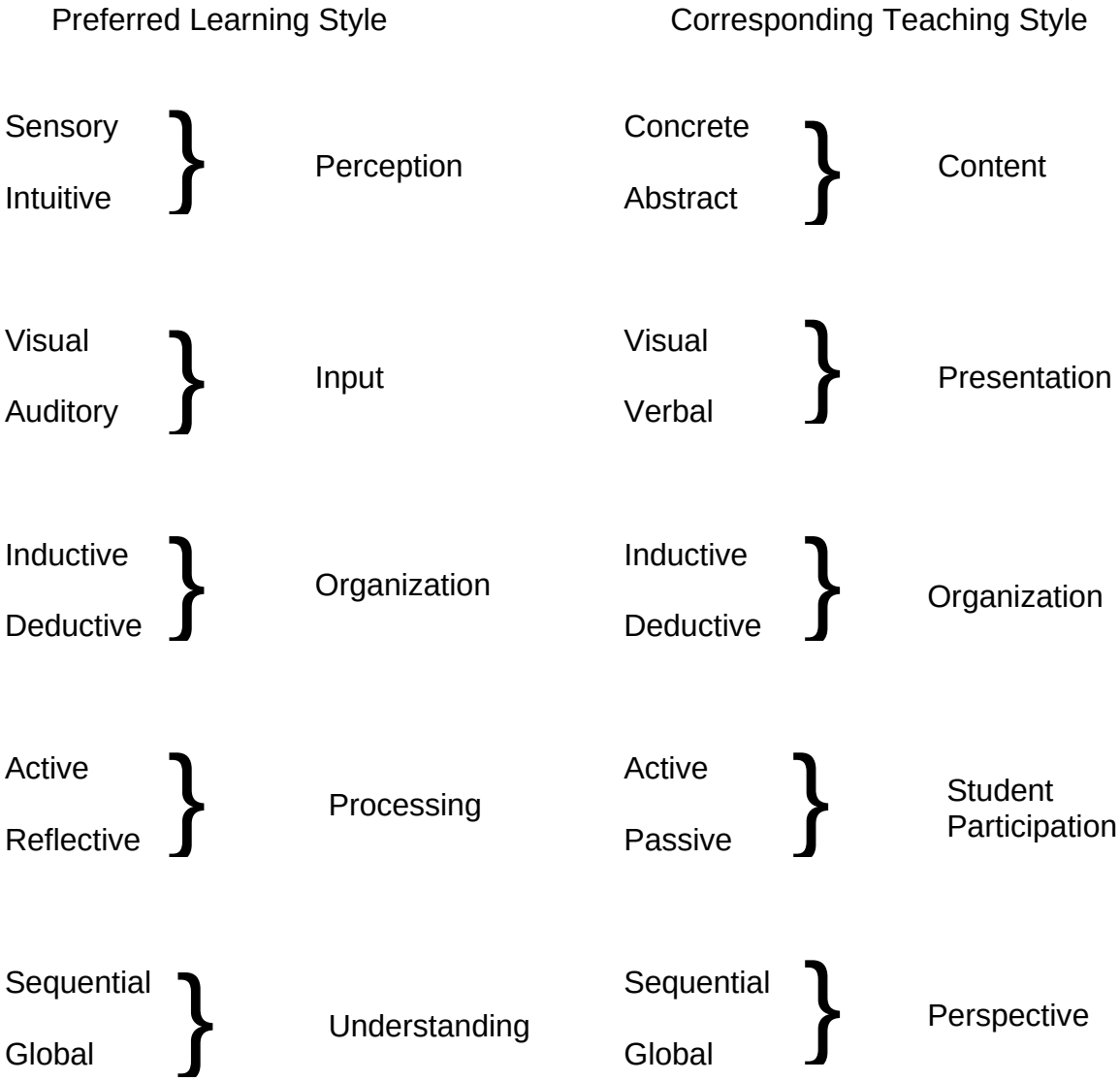


Figure 2. Felder-Silverman learning and teaching style model.

As with determining a participant's preferred learning style, in order to determine an instructor's preferred teaching style, Felder and Silverman (1988) suggested asking the following five questions:

1. What type of information does the instructor emphasize: concrete – factual, or abstract – conceptual or theoretical?
2. What mode of presentation is stressed: visual – pictures, diagrams, films, demonstrations, or verbal – lectures, readings, and discussions?
3. How does the instructor organize the presentation: inductively – phenomena leading to principles, or deductively – principles leading to phenomena?
4. What mode of student participation is facilitated by the presentation: active – students talk, move, reflect, or passive – students watch and listen?
5. What type of perspective does the instructor provide on the information presented: sequential – step-by-step progression (the trees), or, global – context and relevance (the forest)? (p. 675)

Anthony Grasha, co-creator of the Grasha-Riechmann Student Learning Style Scales (GRSLSS), developed a teaching style model in 1996. Grasha (1996) identified five teaching styles, including expert, formal authority, personal model, facilitator, and delegator. The expert has knowledge and expertise to guide learners. The formal authority holds status and conventionalism to follow rules and expectations and to offer a critical eye for procedures and processes. The personal model provides examples of behavior and opportunities for imitation by showing prototypical actions. The facilitator asks questions, encourages discussion, and focuses on relationships. The delegator encourages learners to accept responsibility and show initiative for learning but provides information when asked as a resource.

Grasha (1996) asserted that these teaching styles are usually grouped in one of four the different clusters of teaching style, preferred teaching methods, and primary

learning styles. Grasha added that these clusters differ on which participant learning styles they best support. The clusters include the following:

- Expert with formal authority using the preferred teaching methods being informative and technology-based lectures and presentations focused on teacher-centered questioning and discussion with the primary learning styles as first dependent, second participative, and last competitive
- Personal Model, expert, and formal authority mixed with the preferred teaching methods including role modeling for coaching and guiding and with the primary learning styles as first participant, second dependent, and third collaborative
- Facilitator, personal model, and expert using the preferred teaching methods of case-based and fishbowl discussions, problem-based learning, critical thinking, read alouds, student teacher of the day, and role plays with the primary learning styles as first collaborative, second participant, and last independent
- Delegator, facilitator, and expert using the preferred teaching methods of symposiums, panels, debate formats, small group and paired activities, independent research opportunities, module-based instruction, and journaling with the primary learning styles as first independent, second collaborative, and third participant

The Grasha Teaching Style Survey is a 40-item instrument that is administered online and is based on Grasha's five teaching styles (Grasha & Riechmann-Hruska, 1996). The questions are scored on a 5-point frequency scale ranging from *strongly disagree* to *strongly agree*.

Another teaching styles model was created by Daniel Pratt and Associates (1998). This teaching perspectives model included the five qualitatively different teaching perspectives of transmission, apprenticeship, developmental, nurturing, and social reform (Pratt & Associates, 1998). Transmission referred to having substantial commitment to the subject and content. Apprenticeship was described as a process of anticipatory socialization or acculturation. Developmental requires the teacher to plan the curriculum according to the learners' points of view. Nurturing involves teaching from the heart with courage and without fear. Finally, social reform involves changing society in substantive ways with effective teaching.

As a supplement to Pratt's teaching perspectives model, Pratt, Collins, and Selinger (2001), created the Teaching Perspectives Inventory (TPI). The TPI is designed to help teachers, educators, instructors, and anyone in a professional role who teaches adults to understand their personal views on each of the five teaching perspectives and how they express them through their own beliefs, intentions, and actions.

The TPI consists of 45 self-descriptive questions that are scored on a 5-point scale. The questions are grouped into two categories, including action and intention items, which are scored on a 5-point frequency scale ranging from *never* to *always*, and belief items, which are scored on a 5-point scale of *strongly agree* to *strongly disagree* (Pratt et al., 2001). Each score can range from 9 to 45 as each teaching perspective consists of nine items. The TPI has been tested on more 1,000 respondents, including "more than 25 groups of teachers of adults in law pharmacy, dietetics, workforce training, nursing, industry, fitness, as well as on adult education graduate students and

in locations spanning Canada, the United States and Singapore" (Pratt et al., 2001, p. 2), yields an overall internal consistency of .80, and is available online at no cost.

Matching Styles Theory/Matching Hypothesis Model

The matching styles theory suggests that the transfer of learning increases when the learning styles of participants and their instructors are matched or when the learning styles of participants is matched with a similar teaching mode, learning activity or situation (Jeffrey, Hide, & Legg, 2010). When the learning style of the student and the learning style of the instructor are mismatched, then the student may begin to struggle in class with attentiveness, performance, and morale that may ultimately lead to the student dropping out of school (Okanlawon, 2006).

The matching hypothesis learning style model, developed by Doctors Rita and Kenneth Dunn between 1967 and 1972, suggests that every person has specific learning styles that differ with each person. Indeed, the matching hypothesis model suggests that when participant's learning style is matched with the type of teaching style or activity, the higher the level of achievement (Dunn & Dunn, 1993). This learning style approach is based on instructional methods that match each participant's learning style preference (Bostrom & Lassen, 2006). "Any study on learning styles could be extended by examining the impact on students' performance relative to the teacher's style of teaching" (Fatt, 2000, p. 41). In order for an organization to improve communication and learning within its workforce, the organization should recognize that different individuals will learn best under different styles of teaching. Using a combination of all learning styles in an effective manner will achieve the organization's overall objectives (Wilkinson & Kleiner, 1993). In a 2010 study conducted at the University of Ljubljana,

Faculty of Economics (FELU), Penger, Znidarsic, and Dimovski (2011) confirmed that "matching student's experiential learning style preferences . . . with complimentary course syllabus improve management education, academic achievement, and student's attitudes toward learning" (p. 30).

Dunn and Dunn's matching hypothesis model has 20 elements of learning styles categorized according to how they affect learning (Boyle, 2005). The five categories, or strands of learning style stimuli, are environmental (i.e., sound, light, temperature, and seating design; emotional (i.e., motivation, persistence, responsibility/conformity, and need for internal or external structure); sociological (i.e., learning alone, in a pair, as part of a small group or team, with peers); physiological (i.e., auditory, visual, tactual, and/or kinesthetic perceptual preferences); and psychological (i.e., perceptual preferences, the need for mobility versus passivity; Dunn & Dunn, 1993).

The four perceptual elements found in the physiological category are auditory, visual, tactile, and kinesthetic (Boyle, 2005). Individuals with auditory preferences learn mostly by listening. Conversely, if is students have less auditory strength, they should not rely on listening as a sole means for absorbing new and difficult information. Individuals with visual preferences tend to learn and remember best by seeing. They are able to create mental images or pictures based on what they see and/or hear. In the classroom, visual aids such as pictures, flip charts, and diagrams are most helpful to visual learners.

Tactile learners learn best when participating in the learning activity, or having hands-on responsibilities. For instance, tactile learners may need to take notes during the training session. For kinesthetic learners, they learn best by being actively involved

in the experience. Two activities that kinesthetic learners appreciate are role-playing and discussions. They prefer doing some type of activity while concentrating on new or difficult material. Kinesthetic learners have similar perceptual preferences as tactile learners (Boyle, 2005). This multidimensional learning style model is one of only a few models that offer information directly related to teaching strategies in the classroom (Table 6).

Table 6

Physiological Perceptual Elements

Learning Style	Description	Verbal Cues	Non-Verbal Cues
Auditory	Learn and best by seeing; create mental images	"Show me" Read for knowledge and understanding	Enthusiastic when listening to lecture or hearing instructions
Visual	Learn and remember best by listening	"Tell me" Hear for knowledge and understanding	Enthusiastic when pictures, illustrations, demos, etc. are shown
Tactile	Learn and remember best by touching	"Let me feel/touch it" Feel, examine or demonstrate for knowledge and understanding	Enthusiastic when touching, examining or role-playing content
Kinesthetic	Learn and remember best by doing	"Let me do it" Hands-on or practice for knowledge and understanding	Enthusiastic when it's time to practice content

The traditional method of using learning styles in developing learning is the matching approach (Pheiffer, Holley, & Andrew, 2005). "The concern of teachers should be the student's style of learning" (Okanlawon, 2006, p. 338). We should not only spend time designing jobs to fit people, but teachers/instructors should spend just as much time on developing training material and a learning environment to fit the

students (Okanlawon, 2006). The matching hypothesis model encourages instructors to focus on individual learning characteristics, not just the learning content (Pheiffer et al., 2005). In his study of self-directed and collaborative online learning, Fitzgerald (2003) supported the matching hypothesis model when he reported that participants that learned in their preferred learning style had the highest mean performance improvement from pre- to post-tests.

The Productivity Environmental Preference Survey (PEPS) was specifically designed by Rita Dunn, Kenneth Dunn, and Gary Price to identify the conditions under which learners are more likely to be productive. The PEPS is a comprehensive 100-item instrument that uses a 5-point Likert scale that ranges from *strongly agree* to *strongly disagree*. There are 20 variables or characteristics assessed to indicate whether the respondent is strong, weak, or normal in each area (Table 7).

Table 7

Productivity Environmental Preference Survey Categories' Characteristics

Immediate Environment	Perceptual Preferences	Emotional	Physical Needs	Sociological Needs
Light	Visual	Structure or Flexibility	Intake	Self-Oriented
Temperature	Kinesthetic	Motivation	Time of Day	Peer-Oriented
Design (informal, formal)	Tactile	Persistence	Mobility	Authority-Oriented
Sound	Auditory	Responsibility		Flexible

The PEPS identifies the conditions or environment for which adults are most likely to achieve greater productivity. The PEPS is a normed instrument with a standard

score of 60 or above for a particular variable that indicates a strong preference for that variable as a condition under which to study or work (Wenham & Alie, 1992). A condition is not preferred with score of 40 or less. The PEPS has demonstrated to be a valid and reliable instrument.

In order for organizations to meet the goal of improving learning, they must meet the needs of both the individuals within the organization and the organization itself simultaneously. To accomplish this goal, three things must happen. These include matching training to participants' needs, using feedback, and recognizing different learning styles (Wilkinson & Kleiner, 1993).

> Understanding students' learning styles has been a concern to many educators because of research findings that have demonstrated that where teaching styles are compatible with student learning styles, students retain information longer, apply it more effectively, have a more positive attitude to their subjects, and are greater achievers. (Morrison, Sweeney, & Hefferman, 2006, p. 64)

Research has consistently shown that when teachers changed their teaching methods from traditional to a learning style teaching approach at all levels, including elementary, secondary and collegiate, test scores and/or grade point averages were statistically higher (Shaughnessy, n.d.). "Teachers can effectively engage learners in the learning process by adopting a multi-style approach instruction such that no one dimension of learning and teaching is preferred" (Tuan & Long, 2010, p. 54).

Hayes and Allinson (1997) concluded that matching the learning styles of participants with the learning styles of teachers will have beneficial effects. Linda Ament (1990) found that when the learning styles and training styles were closely

aligned, it resulted in a more positive overall learning and training experience. Conversely, when the preferred learning styles of participants and their instructors are mismatched, several problems are likely to occur, such as participants becoming bored, performing poorly on tests, becoming discouraged, and being inattentive or disruptive (Okanlawon, 2006).

Learning Motivation

Because each person differs on how much effort they give to their own learning, such as working hard, understanding the content and being disciplined to study (Jeffrey et al., 2010), it is important to understand what motivates individuals to learn. One significant training and development trend is the growing need for employees to take ownership of their learning and development (Pace, 2011). "Self-directed learners expect to have at least some degree of control over the learning process" (Jeffrey et al., 2010, p. 159). In education, for instance, we begin as dependent learners as defined by pedagogy. As we mature, our adult dependency shifts toward self-directed learning (Bedi, 2004). Organizations now expect employees to chart their own course and take the lead for new learning and career advancement opportunities (Schramm, 2011). In a recent study by the CARA Group, Inc., learning professionals reported that informal learning plays a vital role in employee training and a great majority of them encourage or support this learning methodology (Geiman & Dooley, 2011). Managers view employees that are responsible for their own development as being highly engaged and their personal and career goals are more closely aligned with company goals, objectives, mission, and values (Ayers, 2005). Some managers also support the idea to

create an incentive program that compensates employees for effectively using self-service technology tools, such as online training programs (Stanley & Pope, 2000).

Formal or traditional, classroom learning is becoming less utilized in our world and is “being replaced by informal, experiential, and incidental forms of learning (McGuire & Gubbins, 2010). For instance, at The Economical Insurance Group (TEIG), a 140-year old institution, nearly 70 percent of their training is informal to meet the needs and challenges of their nearly one-third Generation Y employee base (Freifeld, 2011). The more technologically savvy our society becomes, being able to conduct their own research for personal knowledge, the more companies will direct their employees to become more self-directed in their learning. Additionally, the time required to create a quality in-house training program can be lengthy, the cost to develop the program and deliver it can be expensive, and the duration of its relevancy can expire quickly (Dolezalek, 2004). Self-directed or informal learning, on the other hand, is more immediate and it allows employees to manage their personal and professional growth (Geiman & Dooley, 2011).

Increasingly, employees are becoming more interested in their intake of knowledge, skills, future roles and career paths, and opportunities to self-discover as a way of increasing their employability (Rock & Garavan, 2006). Because of their personal investment, self-directed workers also possess some autonomy to getting things done in the manner of their choosing and they want and get the opportunity to choose how their performance will be measured (Ayers, 2005). Self-directed training also allows the employee to package a training plan that is suitable to his or her own learning potential at a time frame and delivery method that may be more convenient

than a traditional classroom training program. Such conveniently packaged training programs include DVDs and other electronic, just in time programs (*"What's new*," 2004). When participants become active in designing and preparing solutions, their motivation to participate and implement the learned skills will be enhanced (Shushan, 2012). Further, Saunderson (2011) believed that empathy and recognizing others' points of view is "a powerful intrinsic motivation for real learning" (p. 79).

Learning Environment

Creating an effective learning environment is a key component in the transfer of training and for the positive perceptions the participants have regarding their learning (Sims, 2004). Sims cites that having an environment that is safe, that is, one that is open and values others' opinions and ideas are important. Additionally, Sims said that effective management of the learning environment, content, and process are just as important. According to psychologist Jean Piaget's cognitive development theory, progressive stages of cognitive development are a result of biological maturation, intellectual potential and environmental experience (Behar-Horenstein & Niu, 2011).

The training classroom is also essential to the process of learning (McNulty & Schmidt, 2005). For example, the number of windows (or lack thereof), the seating arrangements, the placement of computers, and the general aesthetic quality of the classroom all affect the learning process (McNulty & Schmidt, 2005). There are traditional training rooms that have been historically set up with rows of tables and chairs all facing the front toward the instructor or the center of the room. The facilitator/trainer usually has a desk at the front of the room near the white board or chalk board and/or projector screen. There may also be an easel with flip charts for the

facilitator to use (Mayer, 1996). Because organizations and technology are rapidly changing, the usefulness of the traditional training classroom is no longer applicable.

"The reality is that sufficient space, adequate room temperatures, lighting, and colors are all important to any training event, even if the topic is about nuts and bolts and chairs with wheels allow students to move easily to help one another" (Bixby, 2012, p. 63). There should also be sufficient whiteboard or flipchart space that will aid in forming small groups and creating group learning activities. Advances in technology, such as software programs, that allow participants to see their computer screens more easily and make sharing convenient need to be adopted. Bixby (2012) asserted that although these investments are small, they can affect learner retention and make learning easy. Accommodations including an open-plan design for the classroom, furniture that is mobile and ergonomically designed, up-to date technology (i.e., smart board and e-learning capabilities), the ability to hang flip charts on the walls around the room, and separate facilities (rooms) to conduct smaller group sessions may be used to create a positive and optimal learning environment.

Learning Evaluation

Evaluation is critical to this study because it measures whether or not the transfer of knowledge took place as a result of the learning program. Because training occurs, whether it is formal classroom training, on-the-job training, online/internet training, or any other method of training, measuring the impact or effectiveness of training through some type of evaluation process is rare. "The central challenge for organizations today is how to leverage learning consistently, quickly, and effectively into improved performance" (Brinkerhoff, 2006, p. 304). Although there is not a universally agreed

upon definition for the term evaluation, there are numerous evaluation models that exist (O'Connell, 2004). A prominent theorist in training, development, and learning evaluation is Donald Kirkpatrick, who introduced a four-level evaluation model in 1959 (Donkin, 2004). Kirkpatrick's evaluation model is the most widely used evaluation model in the field of training and development. Thus, Sloman (2004) reiterated that Kirkpatrick's evaluation model has been accepted universally as the desired approach we should all adopt. "Kirkpatrick's four levels provided us a taxonomy of evaluation and measurement that emphasized learning transfer. Kirkpatrick's work has been the industry standard for half a century" (Rossett, 2007, p. 52).

The four evaluation levels are Level 1, which measures participants' immediate reactions and attitudes to the training program; Level 2, which measures participants' immediate level of understanding the objectives of the training program; Level 3, which measures how the participants' on-the-job behavior (OJB) changed as a result of attending and participating in the training program; and Level 4, which measures the success or failure of the training program in financial terms or the bottom line, also stated as return-on-investment (Kirkpatrick & Kirkpatrick, 2006). As participants advance to each evaluation level, moving from measuring reaction to measuring results, the value of the acquired information increases (Garavaglia, 1993).

Kirkpatrick (2006) argued that seven keys unlock the four levels of evaluation as follows: (a) analyze resources, (b) involve managers, (c) start at Level 1 and continue through Levels 2, 3, and 4 as resources permit, (d) evaluate reactions, (e) evaluate learning, (f) evaluate behaviors, and (g) evaluate results. Many companies continue to rely on trainee reactions, or "smile sheets" (Level 1) to measure training effectiveness

(Long, DuBois, & Faley, 2008). A 2010 American Society for Training and Development Value of Evaluations Report revealed that more than 92% of companies surveyed conduct Level 1 evaluations, and the numbers drop significantly with each subsequent level (ASTD Research, 2009). This trend has been consistent as a 2004 American Society for Training and Development State of the Industry Report specifically revealed that more than 74% of companies surveyed conducted Level 1 evaluations; 31% conducted Level 2 evaluations; 14% conducted Level 3 evaluations; and less than 10% conducted Level 4 evaluations (Cohen, 2005).

Additionally, trainee reactions and learning (Levels 1 and 2) are the easiest evaluation data to collect as they focus on the training content provided during the training program. As a key point for implementing the four levels, Kirkpatrick (2006) reported that it is not enough to complete the first two levels, which are immediate responses to a training class. By evaluating the transfer of learning to the job and the change in behavior (Level 3), the evaluator will determine why improvement techniques did or did not work (Kirkpatrick, 2006). Additionally, Kirkpatrick's evaluation model implies that evaluation begins after the training program has ended, even though it is important to complete pretests (Kearns, 2005). For purposes of this research case study, the first two levels of evaluation were used.

Organizational Anthropology

Anthropology is the science of human beings. It studies people in relation to their distribution, origin, classification, relationship of races, physical character, environmental and social relations, and culture (Laabs, 1992). In his article, Varenne (2008) explained that anthropologists must face culture in education as opposed to

equating education with schooling. Many companies have found that anthropologists can offer a great deal of insight to understanding human behavior. Specifically, business anthropologists have been studying how best to incorporate multicultural learning content and techniques into corporate training curricula and programs for many years (Laabs, 1992). Wolcott (1982) asserted that it would be remarkable if anthropology could "help teachers develop a proprietary interest in the natural (and very social) process of human learning and help educators shape a learning-centered rather than a teaching-centered profession" (p. 87).

Ethnography as a Qualitative Data Tool

With roots in anthropology and sociology, ethnography, also known as naturalistic inquiry, is considered the "purest" form of qualitative research (Sofaer, 1999). Based on the Greek word ethnos, which means a people or cultural group and the word graphic, which means to describe, ethnography simply means to describe a people or cultural group. By culture, a researcher may choose to focus on the shared or common meanings within a group and others may focus on what needs to be known to behave appropriately or assimilate within the group in any given context (Glesne, 2011). Ethnography is a qualitative research design that is rooted in direct observation, with the primary focus being the degree of descriptiveness in the writing about particular groups of people (Zickar & Carter, 2010). In particular, ethnographers study the dialogues of actions and interactions of various cultures over time through observations and interviews. As their research deals with education, ethnographers seek to understand the relationship between teaching and learning and attempt to answer questions that generally lie beneath the surface. Once recorded, ethnographers interpret their results

to try to make sense of what they have studied. True ethnography is a result of the researcher becoming totally immersed in the culture that he/she is studying to provide the most accurate account of direct observed interactions. For instance, the researcher might live among a nomadic group in West Africa for a period to understand the culture. Additionally, constant interviews, both formal and informal/casual, must be completed on the study as interviewing is a fundamental and widely used technique in anthropological studies (Jordan, 2003). In a typical interview setting, the researcher asks questions of one or more individuals relevant to their research study and respondents answer questions in terms of their disposition, such as their motives, values, beliefs, concerns, or needs (Glesne, 2011). The combination of these observations and interviews are reported “as is” and provides a “native” view or account of what’s really going on in that particular culture, which eliminates filtered or misinterpreted feedback from a third party source. These are the clues to trends that explain human behavior (Spindler, 1997).

Careful translation and interpretation, both from a reader and professional perspective, are also important for good ethnography. Although, ethnographies have proved useful in studying the behaviors of groups, many businesses have neglected this form of research. In order to reconnect with the spirit of using ethnographies in the workplace, there are five recommendations, including reading ethnographies, which may lead to new hypotheses or revisions to existing theory; incorporating ethnographies into the classroom, such as oral histories, worker autobiographies, and short observations which may provide insight to the nature of particular jobs; considering new ethnographic methods, such as virtual or online ethnographies that can be conducted

from your personal computer or laptop; collaborating with ethnographers by partnering with them to design a combination of qualitative and quantitative research methods; and talking with the people being studied in the workplace before beginning the research (Zickar & Carter, 2010).

Summary

This chapter included an insightful overview of the extrinsic and intrinsic dynamics that exist in the classroom. Particularly, this chapter included a review of the literature related to adult learning, learning styles, learning environment, learner motivation, learning evaluation, organizational anthropology, ethnography as a qualitative tool of data collection and case study research. Chapter 3 presents the research methodology used for this case study research.

CHAPTER 3

METHODOLOGY

The purpose of this research was to determine (a) how instructors' teaching styles supported participants' learning styles and their perceptions of classroom environment and motivation to learning and (b) how the relationships between the instructors and participants impacted participant performance during the training program. The participants were six new employees that enrolled in a new hire training course and two instructors of that course at a corporate learning organization located in the southwestern part of the United States.

The six research questions, noting that the first question was the study's major research question, that guided this study were the following:

1. What do participants consider as an optimal learning experience?
2. What do participants indicate for their preferred learning style?
3. What do participants indicate for their preferred classroom environment?
4. What do participants indicate for their motivation to learn?
5. What do instructors indicate for their preferred teaching style?
6. What strategies do instructors utilize that foster or inhibit the participants' learning optimization?

This case study research recommended training solutions to enhance training design and delivery, improve job performance, and increase motivation to learning. This chapter includes the research paradigm, context, and setting of the study, training course design, study population, instrumentation, data collection, data analysis, and a summary.

Research Paradigm

The research design is the formal plan of action a researcher intends to use. By definition, a research design "is a detailed set of questions, hunches, and procedures and a plan of action for the conduct of a research project" (LeCompte & Schensul, 1999, p. 61). In addition to determining the research questions and the methodology of the research study, choosing which paradigm(s) to use is equally important. As part of the overall research design, it is imperative for a researcher to apply the appropriate framework based on his or her research questions, personal preferences and needs and restrictions of the research setting. A paradigm is the framework for developing a perspective, interpretation, or way of viewing the world and determining its validity and importance (LeCompte & Schensul, 1999).

LeCompte and Schensul (1999) argued that the reality of the positivistic paradigm " is observable and understandable" (p. 42) and empirically verifiable. Additionally, the research findings can be generalized if the research is conducted with a properly representative sample of participants (LeCompte & Schensul, 1999). Often used in quantitative research studies, positivism requires that remaining neutral and value free, that is, to remain as an objective outsider to avoid influence, manipulation, prejudice or bias on the research setting or participants (LeCompte & Schensul, 1999).

Because I sought to discover the participants' and instructors' perspectives on optimal learning, including learning style, learning environment, and motivation to learn, I employed the interpretive paradigm. Interpretivism leads to interpretation of "people's constructions of reality" to "identify uniqueness and patterns in their perspectives and behaviors" (Glesne, 2011, p. 19). "Negotiated meaning cannot occur unless the

researcher is a full participant in the process" (LeCompte & Schensul, 1999, 50). Therefore, interpretivism required me to become a participant with other participants in the research study to capture and learn their behaviors, stories, languages, habits, and other interactions, as constructed through ongoing and ever-evolving interactions in order to understand their meaning.

Qualitative research enabled me to clarify the values, behaviors, language, meanings, and other commonalities of the participants of a single organizational culture. The new employees and the instructors who led their 6-week new hire training course and who volunteered were the participants (Sofaer, 1999). By conducting the study with qualitative research methods, I allowed the participants and instructors to voice their opinions and perspectives about the course and about how they learn best. I did not impose any or require them to conform to predetermined categories and terms. The qualitative data collection tools included participant-observations and eight semi-structured interviews with participants and course instructors. I recorded and transcribed all interviews for the data analysis.

Mixed Methods

I conducted an ethnographically informed case study using both the quantitative and qualitative tools of data collection. However, for a study of this nature, the majority of the research required the use of qualitative data collection tools. The quantitative components of the study were used only for comparisons to the rich qualitative data. The quantitative data collection tools included the results of the learning and teaching styles indicators and predictors and the results of the Level 1 and Level 2 evaluations. I recorded and analyzed the participants' learning styles predictor/indicator scores and

the instructors' teaching styles predictor/indicator scores. I also reviewed the scores of two of the Level 1 evaluations (perception) as well as four of the Level 2 (assessment) evaluations. This mixed methods case study allowed me to analyze the participants' perceptions and learn their motivation and performance factors during and immediately after their participation in one 6-week new hire training course.

Interpretivist Qualitative Inquiry Through Ethnography

True ethnography results from a researcher becoming totally immersed in the culture being studying to provide the most accurate account of direct observed interactions (Spindler, 1997). As a science, ethnographic researchers must first discover what the people in the studied communities, institutions, and other settings do and their reasons for doing it before interpreting the data. Ethnography is a qualitative research method designed for discovery. In essence, the ethnographic researcher learns through recorded observation and interviews while seeking to understand meaning within the culture's context (LeCompte & Schensul, 1999).

This study did not meet all the criteria for being a true ethnographic study. Because the expectation of ethnography is "long-term immersion in the field" (Glesne, 2011), I used informed methods based on Spindler's (1997) key ideas as well as the ethnographic research design tools of LeCompte and Schensul (1999). Spindler's key ideas for ethnographic study require direct, prolonged, and repetitive observation; immersion in the field situation as a participant; and constant interviewing, whether formal or casual. Spindler believed in the appropriate and careful use of quantitative data and inferential statistics to conduct thorough research (Spindler, 1997). LeCompte and Schensul promoted seven characteristics for an ethnographic study:

- It is carried out in a natural setting, not in a laboratory.
- It involves intimate, face-to-face interaction with participants.
- It presents an accurate reflection of participants' perspectives and behaviors.
- It uses inductive, interactive and recursive data collection and analytic strategies to build local cultural theories.
- It uses multiple data sources, including both quantitative and qualitative data.
- It frames all human behavior and belief within a sociopolitical and historical context.
- It uses the concept of culture as a lens through which to interpret results. (p. 9)

Case Study

Case study is one type of qualitative research design. Case studies typically focus on a single unit for the research, such as a person, group, single institution, or single program. Although ethnographies are case studies because of their focus on a single unit, case studies, in general, vary in type and across multiple disciplines (LeCompte & Schensul, 1999). Unlike ethnographies, case studies do not necessarily involve continuous immersion into the group or setting; however, long-term study, such as "one to five short, but intensive exposures to a setting or group" is common in order to conduct a thorough case study (Sofaer, 1999, p. 1110).

The primary research methods employed by ethnographies and other case studies include participant-observation and interviews. Other qualitative case study methods include written and recorded documents, artifacts, videotapes, as well as quantitative data collection, such as test and performance results and other measured

reports (LeCompte & Schensul, 1999; Sofaer, 1999). This case study was focused on six new hire participants and two instructors assigned to participate in a 6-week new hire training course at a corporate learning organization. I used the research methods and techniques common to conducting ethnographic research and general case studies.

Context and Setting of the Study

The setting for this research case study was a 6-week new hire training course in a classroom at a large corporate learning organization in the southwestern part of the United States. The course was a requirement for all new employees hired to work in a particular department of the organization. The department assigned to train the new employees included tenured employees of the training and development team. Throughout the 6-week training period, the new employees learned and completed tests over a number of topics. The instructors used a variety of learning and teaching methods and techniques.

Learning Organization

The learning organization was one of many such entities owned and operated by a much larger, global financial services firm located in the southwestern part of the United States. The firm employed over 150,000 people globally, and about 1,000 employees were located at the study location. The organization's primary function was to offer a wide range of consumer and commercial financial products and services by face to face, telephone, online, mobile, or automated machine contact. The goal of the learning organization was to equip each new and tenured employee with the knowledge, competencies, and skills necessary to do their jobs effectively, regardless of

background, race, gender, or professional experience. The learning organization also offered a suite of leadership and professional development training programs for emerging and tenured leaders. Trainers working within the learning organization also represented a diversity of backgrounds, races, genders, and professional experiences.

Training Classroom

As with most traditional training rooms, the training classroom was equipped with long tables, chairs, computers, and an instructor's table and chair. The tables were placed in a U-shaped design, with two 6 foot by 6 foot tables next to each other on the east wall and two 6 foot by 6 foot tables next to each other on the west wall. There were two 6 foot by 6 foot tables on the north wall. On the south end of the room stood the projector, projector stand, and the instructor's table and a chair.

Behind the U-shaped long tables were several more tables with computers on them. Along the east and west walls were two 6 foot by 6 foot tables positioned next to each other with seven computers and monitors on top of them. Along the north wall were two 6 foot by 6 foot tables next to each other with six computers and monitors on top of them. On the east, west and north walls hung two huge framed posters with the company's value statements and other motivational messages on them. There were three long light fixtures in the ceiling above the U-shaped tables. Behind the instructor's table was a whiteboard with a tray of colored markers. On either side of the instructor's table were an easel with flip chart paper and a door with a window next to it. Above the instructor's table were ceiling lights, and above the whiteboard was an electronic projector screen.

Training Course Design

New employees of the organization in this particular line of business are required to attend a series of training courses, both technical and non-technical in nature, beginning with a 6-week new hire training course. Although the course was taught primarily in the classroom, the blended curriculum included facilitator-led instruction, self-study, on-the-job study, peer side-by-side study, and computer-based or online instruction. The first 4 weeks of the course consisted of product training and thorough reviews of policies and procedures along with a myriad of practical applications, group activities, and four weekly Level 2 evaluations called assessments. Each of the first three assessments included the previous week's topics.

For example, the first assessment consisted of all the topics covered from the first day of class up to the previous day of the assessment. Likewise, the second assessment consisted of all the topics covered since the first assessment up to the previous day of the second assessment, and the third assessment consisted of all the topics covered since the second assessment up to the previous day of the third assessment. The fourth assessment was a comprehensive assessment about the content of the entire training course. The learners were required to pass each assessment with a score of 80%.

If participants did not pass an assessment, they were allowed to retake the assessment as often as needed to achieve a passing score; however, only the first attempted assessment counted toward performance tracking. Also, each time participants did not pass an assessment, they were assigned to a supervisor or high performing tenured representative for coaching and review of missed or misunderstood

content. The goal of the instructors and the business leaders was for each participant to pass each assessment on the first attempt.

The first 4 weeks of training were taught primarily by a lead facilitator and a co-facilitator. The lead facilitator taught the majority of the topics and the co-facilitator either assisted the facilitator or facilitated a few topics alone. Additionally, several guest presenters from the business facilitated several topics throughout the course. The final 2 weeks of the training course consisted entirely of practical applications completed in a closely supervised live-production environment. Various business operations supervisors monitored specific shifts and coached and assisted the new hires during this 2-week period.

Population

It was expected that there would be multiple 6-week new hire training courses being conducted simultaneously and consecutively before, during, and after the case study research period. However, this case study included six new employee course participants and two classroom training instructors from the corporate learning organization. The new employees were a group of individuals representing a diversity of backgrounds, ages, gender, races, and professional experience.

All employees had start dates consistent with the first day of new hire training. The only requirements for being hired and selected to attend new hire training were having earned at least a high school diploma or GED, being at least 18 years of age, and having at least 1 year of customer service experience, regardless of the prior industry. The tenured trainers represented diverse backgrounds, ages, gender, races, and professional experiences.

The sample size for this case study was ultimately determined by the number of participants enrolled in the new hire training course and the number of course instructors selected to train the course at the start of the study. Convenience sampling is a type of purposeful sampling that allows for recruiting individuals based on ease and convenience (Skowronek & Duerr, 2009). Because of its simplicity, convenience sampling is cost effective even though it has low credibility and is used mostly for practice (Glesne, 2011). Since the purpose of qualitative research is not to produce generalizations about a whole population, not just the study participants, purposeful sampling allows for information-rich case studies.

I selected maximum variation sampling. Maximum variation sampling includes a variation or diversity of participants, such as the learners enrolled in or the instructors who taught the 6-week new hire training course. Additionally, this method of sampling allowed me to search for common patterns and themes across those variations (Glesne, 2011). The participants' names and other personal identifiable information were concealed by pseudonyms at the learning organization's request as well as for the privacy and confidentiality of the participants and instructors and for the integrity of the study.

Class Participants

Benita. This participant was a Hispanic female in her early 40s, was very appreciative of the opportunity to work for the company. She had several years of manufacturing experience, particularly in automotive operations, and a few years of customer service experience in the same industry. She was laid off twice in the previous year and anticipated her third lay off before the end of the year. The industry

market trends had fallen and were not expected to improve. Rather than wait for the unfortunate news of the layoff, she decided to seek other employment. Although she would have preferred finding a job outside of her current industry, she accepted the first offer she got, which happened to be in the same industry and with a higher salary and better benefits. She was determined to make this new job work.

Benita was somewhat apprehensive, yet excited to work in an environment that did not require a uniform and in which she would have her own desk, chair, computer, and phone. Benita was the most enthusiastic participant in the class, often displaying her eagerness and zest for learning. She displayed this eagerness through being among of the most talkative and active participants in class and by frequently volunteering for assignments or assisting the instructors' information sharing. At first impression, she seemed to yearn to be the star performer; however, after talking to her and watching her interact, she seemed to just be grateful to be working and having the opportunity to express herself in the classroom. As the most senior person in the group, she readily took on leadership roles and occasionally demonstrated mother-type roles with her peers.

Carmen. This participant was an African American female in her late 20s with over 6 years of experience in customer service, but this position represented her first experience in her current industry. She sought employment during her maternity leave from her previous employer because of inadequate benefits. She was a single mother with two daughters, and her current company's benefits ensured that she and her daughters would have proper health care, plus a few other perks she was glad to learn about during new hire training. She was extremely quiet and reserved throughout the

entire training period and participated when prompted. Because she did not smile much or offer affirmations, it was often difficult to determine her disposition. She preferred to work alone but behaved as somewhat competitive and high energy during the group activities. Carmen had earned some college course credits and hoped to resume her studies once she learned more about the company's tuition reimbursement policy. She wanted to major in business to become a manager in a retail store or bank within 2 to 3 years.

Jasmin. This participant was an African American female in her mid-20s. She consistently exhibited a tough girl image by her attire, demeanor, and comments. From the first day of class, she displayed very negative body language, and I wondered why she accepted the offer to work for the company, let alone, why she was even offered the job. Jasmin's behavior demonstrated thinking that worked against most of the agreed upon classroom rules which had been discussed on the first day of new hire training. For example, Jasmin was reluctant to participate in the training and yawned often. She did not readily ask or answer questions, and she rolled her eyes whenever she participated in reading aloud or other activities.

Contrary to her outer appearance and behavior, Jasmin was extremely bright and intelligent. She had 3 years of customer service experience, including some supervisory skills, mainly in the fast food and retail industries. She had two years of college experience. Like Carmen, Jasmin wanted to take advantage of the company's tuition reimbursement opportunity to continue her studies.

Jasmin reported majoring in political science but also wanting to change her major to criminal justice. She would consider business if the company had restrictions

on choices of majors. She was very competitive and seemed to enjoy the competitive nature of some of the activities. She also made it very clear that she did not want to be in class, refusing to volunteer to participate and only participating when asked to by the instructors. She felt that training was meaningless as she would have been able to "figure everything out" on her own, just as she did with each of her previous employers.

Martha. This participant was a Hispanic female in her early 20s, had previously worked as a daycare teacher's assistant for 2 years. Before that role, she worked at a couple of fast food restaurants and a convenience store. She often worked two jobs simultaneously during the past 4 years since she had been in employed in all part time positions. This would be her first full time job and the first job that included benefits.

Martha was an average participant. During most of the training period, she was attentive and engaged and seemed to be pleased with the learning environment and her learning performance. She often demonstrated her leadership abilities when working with her teammate Jasmin. Martha also seemed to enjoy the competitiveness of some of the activities. For the most part, she was mellow and easy going. Martha did not express any desires beyond successfully completing the new hire class. On a social note, she seemed to become friends quickly with Natalia with whom she had no prior relationship before the start of the training class. They often spoke in Spanish and went to lunch and breaks together.

Natalia. This participant was a Hispanic female in her early 20s and was what many instructors label as the ideal participant. She was bright and received high scores on each of the four assessments. She was also attentive and engaged. She consistently displayed a pleasant outlook. She had no college experience, but she was

strongly considering it when she learned about the company's tuition reimbursement policy. She reflected her interest:

> If I go to college, I would be the first one in my family to go. If I graduate, I would be the first one to graduate, too. I was the first one to graduate high school, so I know I can do it.

Natalia seemed to enjoy the classroom learning experience. She had previously worked for another company for about a year in a customer service role. Unlike her previous training experience at the other company, she liked that this training class had a real teacher with real books and computers. Natalia's desire was to score very well on the assessments, make her teacher proud, and be considered for a supervisory position within 6 months.

Rosa. This participant was a Hispanic female in her late 30s and an 18-year veteran in customer service who previously worked in several industries including hospitality, manufacturing, fast food, oil and gas, and retail. This position was her first experience with this industry. She did admit that although she had been in the customer service field for most of her career, she felt intimidated by the learning material and computer system for the first time.

Rosa acknowledged being one of the oldest participants and the only grandmother in the class. Normally a quick learner with strong relationship and networking skills, she was frustrated by the complexity and multiplicity of computer software needed to do a seemingly simple job. She maintained a positive outlook throughout the training period. She was engaged, attentive, and competitive. She had

an appeasing sense of humor and was determined to stay the course for her three children and one grandchild, who were, as she proudly proclaimed, “the love of my life.”

Trent. This participant was a Caucasian male in his late 20s, was charismatic, and remained upbeat, engaged, and attentive during his 3 days of training. He had a warm sense of humor and a playfully competitive spirit. He had earned his Bachelor of Science degree in marketing 4 years prior to the training class and had recently been laid off from his previous job 4 months earlier. He never displayed any displeasure with this new job and seemed to enjoy learning something new. He regarded learning as gaining “another tool in my tool belt.” When the opportunity for a position became available that was closer to his career goal of becoming a marketing executive, he took it. Trent was a great team player, and when he withdrew from the class, there was an obvious void in the learning environment.

Class Instructors

Antonio. This instructor was a Hispanic male in his late 30s who thoroughly enjoyed his role as a corporate training professional. He was highly regarded by the business leaders and his peers in the training department for his professional demeanor and his business knowledge and skills. He had been with the company over 15 years and spent the last 6 years in his current training role. Although he was frustrated about not advancing quickly enough in the field, he never expressed that frustration with his participants or co-facilitator. He believed he should have a leadership position with as much experience as he had. However, he also believed that his lack of a college degree was a weakness.

Antonio consistently maintained a positive outlook, displayed frequent energy bursts during the training period, and showed a genuine interest and concern for each of his participants. He often acknowledged that he was once "in their shoes" and that he "knows what each of them is going through because I've been there." Antonio was very passionate about the participants learning and gaining the right skills and knowledge to do an effective, if not superior, job once completing the training class and entering production.

Bethany. This instructor was an African American female in her late 20s with over 7 years of experience in customer service, 3 years of training experience, and over 2 years of experience specifically in the company's industry. She had been employed with the company for 1 year. Although my exposure to her facilitation was limited to two days, she remained positive and highly energized on both days. From the participants' perspectives of Bethany, she was a "fun trainer" but did not have the same effect on them as their primary facilitator, Antonio.

Bethany seemed to enjoy the soft skills training as it was different from the product and process training that consumed most of the training period. Because she was not assigned to do much more than the 2 or 3 days of training that she lead, Bethany recognized that she "did not get to bond with this class like she'd done with the previous classes." In one prior class, she had been the primary facilitator, and Antonio had been the secondary facilitator. Bethany was 2 years away from earning her Bachelor of Science degree in Human Resources, having taken the preceding 2 years off because of personal reasons. She, like several others, planned to take advantage of the company's tuition reimbursement plan and resume her studies. Her goal was to

combine her education and work experience to become a human resources manager or training manager in a few years.

Instrumentation

The Index of Learning Styles (ILS) survey instrument, the Grasha Teaching Style Survey, two Level 1 evaluations, and four Level 2 evaluations were used in this case study research. Additionally, detailed notes and analyses from class observations and participant and instructor interviews were used in this study.

Index of Learning Styles (ILS)

The ILS was developed by Felder and Solomon in 1994. The ILS is used to assess learning preferences on four opposing/bipolar dimensions of the Felder-Silverman learning style model, which was developed by Felder and Linda K. Silverman in 1988. The four dimensions included active-reflective, sensing-intuitive, visual-verbal, and sequential-global (Santo, 2006). Table 8 describes each of the four dimensions on the ILS. A person's learning style profile provides an indication of the probable strengths, tendencies, or habits that may negatively impact the transfer of learning (Felder & Brent, 2005). The ILS is a widely used, available to the public online through North Carolina State University, and known to accruately identify learning styles (Graf et al., 2007).

There are 44 questions on survey and respondents are asked to choose the between the better of two choices, *a* or *b*, to match their preference. The results are displayed in two dimensions on a scale, ranging from 11 to 1 (11, 9, 7, 5, 3, and 1) on the left side of the scale and 1 to 11 (1, 3, 5, 7, 9, and 11) on the right side of the scale. Scores of 1 to 3 on either side of the scale indicate that the respondent is fairly well

balanced in both dimensions on the scale. Scores of 5 to 7 in either dimension indicate that the respondent has a moderate preference for that dimension and learns more easily in a teaching environment that favors that dimension. Scores 9 to1 in either dimension indicate that the respondent has a very strong preference for that dimension. The respondent may have real difficulty learning in an environment that does not support that preference.

Table 8

Four ILS Dimensions

Category of Learning	Dimension	
How perceived information is converted into knowledge	Active (Experimentation) • Learn by trying things out • Enjoys working with others • Processing information externally	Reflective (Observation) • Learn by thinking things through • Enjoys working alone • Examining and manipulating information introspectively
The ways in which people perceive the world	Sensing • Concrete • Practical • Oriented toward facts and procedures • Observing and gathering data through the senses	Intuitive • Conceptual • Innovative • Oriented toward theories and meanings • Indirect perception by way of the unconscious, such as speculation, imagination, and hunches.
The ways in which people receive information	Visual • Prefer visual representations of presented material, such as charts, graphs, diagrams, pictures, sights, symbols, etc.	Verbal • Prefer written and spoken explanations • Sounds • Words
The ways in which people process received information	Sequential • Linear • Orderly • Learn in small incremental steps • Logical • Analytical	Global • Holistic • Systems thinkers • Learn in bits and pieces • Learn in big leaps (chunks)

Note. Table adapted from material in Felder (1996, p. 19).

For purposes of this research study, the ILS was administered online to the participants on the first day of class, and the results were provided to each class participant along with a brief interpretation of the results immediately upon completion. The participants labeled their surveys with their assigned pseudonym and emailed their results to me. I compared their results to the findings from the observations and interviews.

Grasha Teaching Style Survey

The Grasha Teaching Style Survey is a 40-item instrument administered online through a publicly available website and based on Grasha's Teaching Style Model (Grasha & Riechmann-Hruska, 1996). The model identifies the five teaching styles of expert, formal authority, personal model, facilitator, and delegator. The questions on the survey were scored on a 5-point frequency scale. Each question offered response choices of *strongly disagree* (1), *moderately disagree* (2), *undecided* (3), *moderately agree* (4), and *strongly agree* (5). The results yielded low, moderate, or high ratings for each of the five teaching styles.

For purposes of this research, the instructors completed the Grasha Teaching Style Survey on the first day of class. The results were provided to each instructor along with a brief interpretation of the results immediately upon completion. The instructors labeled their surveys with their assigned pseudonyms and emailed their results to me. I compared their results to the findings from the observations and interviews.

Level 1 and Level 2 Evaluations

Evaluation is critical in this case study because it provided information about whether or not the transfer of knowledge took place as a result of the learning program. Donald L. Kirkpatrick's four-level evaluation model has four levels and is the most widely used and accepted model. Level 1 provides a measurement of participants' immediate reactions and attitudes to the training program. Level 2 provides a measurement of participants' immediate level of understanding the objectives of the training program. Level 3 provides a measurement of how the participants' on-the-job behavior (OJB) changed as a result of attending and participating in the training program. Finally, Level 4 provides a measurement of the success or failure of the training program in financial terms or the bottom line, also stated as return-on-investment. This research study used the results of two Level 1 evaluations and four Level 2 evaluations.

The Level 1 evaluations measured participants' immediate reactions and attitudes about the training program (see Appendices A.1 and A.2). The first Level 1 evaluation included 24 questions divided into three parts that were Instructor, Course Materials, and Course Experience. The second Level 1 evaluation included 12 questions and were all related to the co-instructor. Each item on the evaluation was scored on a 5-point frequency scale that included *strongly agree* (1), *moderately agree* (2), *neutral* (3), *moderately disagree* (4), and *strongly disagree* (5). The results were immediately provided to the instructors.

The evaluations were implemented on the last day of the fourth week of training. Participants were given 15 minutes to complete each evaluation; however, more time

was given, if needed. The results of the Level 1 evaluations were used in conjunction with the qualitative tools to compare the participants' written, observed, and verbal perceptions of the class.

The Level 2 evaluations, often referred to by the instructors as assessments, measured the participants' immediate level of understanding of a particular training objective. Four weekly assessments were administered online, including a 30-question week 1 assessment, a 30-question week 2 assessment, a 30-question week 3 assessment, and a 50-question week 4 assessment. Each assessment included a variety of questions, such as multiple-choice, fill-in-the-blank, short answer, matching, and true/false. The assessments were immediately scored, and the results were provided to the participants and the instructors.

The results indicated which questions were answered incorrectly as well as what the correct answers were. Participants were required to score an 80% or higher on each assessment to be considered as passing. If they did not attain a passing score, then they were required to retake the assessment until they passed or up to three times. However, only the first score was calculated in their performance and quality measurements. Each time an assessment was retaken, the same questions were randomly mixed. Additionally, supervisors were assigned to coach and mentor participants on an individual basis if they failed any of the assessments. The goal was to ensure that the participant had a full understanding of the missed content as well as offering reinforcement for the correct content. If the participant did not attain a passing score on the fourth attempt, then the participant received a failing rating and was subject to termination.

Qualitative Tools of Data Collection and the Role of the Researcher

I became a participant-observer during the research case study period. Specifically, I scheduled classroom observations, engaged in informal conversations with participants and the instructor, and participated in class by listening to the lectures/lessons and contributing to classroom discussions and activities. I conducted eight formal semi-structured interviews with the participants and instructors of the 6-week new hire training course.

The learning organization granted permission to use one 6-week training class as the population for the research study. That class included six class participants and three instructors. I used a sample size from the population to conduct the research, including the observations, interviews, and results of the surveys and evaluations. Due to prevailing privacy laws, the learning organization requested anonymity for the use of the organization's name and other identifiable organizational information as well as the names and other personally identifiable information about the participants and instructors. Therefore, all personal names were replaced with pseudonyms and the name of the organization was simply labeled as the learning organization. In other references to the learning organization, general locations and descriptions were used. In addition, the results of the Level 1 evaluations were automatically saved and secured and only accessible to the instructors via their logins and passwords. I then received the results to make general comparisons and recommendations.

Institutional Review Board (IRB)

I adhered to the University of North Texas Institutional Review Board (IRB) policies and procedures for this research. I received written approval from the IRB to

conduct the research. I thoroughly explained the components of the Informed Consent form to the participants and the instructors on the first day of new hire training. I requested and received a signed Informed Consent form from each participant and instructor included in the research study. Additionally, prior to conducting the observations and interviews, I reiterated that participation in the research study was strictly voluntary and anyone could withdraw their participation at any time.

Data Collection

The purpose of data collection was to capture the social meanings and normal activities of the study population in the field, in this case being the classroom of a corporate learning organization, with the goal of minimizing and imposing, as much as possible, my biases on the data (Brewer, 2000). A triangulation of data collection was used in this research study to include field notes of all formal and informal classroom observations of and conversations between participants and instructors; semi-structured interviews with participants and instructors; and the results of the ILS, the Grasha Teaching Style Survey and the Level 1 and Level 2 evaluations.

Participant-Observation

Participant-observation was instrumental in this research study as it provided direct exposure and in-depth experience with the research setting and the participants (Sofaer, 1999). The primary goal of participant-observation is to gain a better understanding of the research setting, the participants in the research study and their behavior. The process allows for obtaining a deeper understanding than mere casual, everyday observations of people and interactions would reveal, because the researcher "carefully observes, systematically experiences, and consciously records in detail the

many aspects of a situation" (Glesne, 2011, p. 67). In essence, the researcher "becomes . . . part of the setting or process being examined" (Sofaer, 1999, p. 1109). The field notes taken during participant-observation were typed and formatted as seen in Figure 3.

Observation Field Notes

Date:	(week, day of the week, today's date)
Observation Sequence:	(day xx of xx)
Start Time:	(start time of observation period)
Total Observation Time:	
Location:	(site of the observation, city, state)

Detailed Notes……

Summary…..

End Time: (end time of observation period)

Figure 3. Field notes format for participant-observation.

Specifically, the observational field notes included the classroom environment with its seating arrangement and wall décor, media components, lighting, viewing options, room temperature, floor design and décor, emergency procedures, and the location of the instructor's desk in relation to where the participants sat. The field notes included observations about the training materials utilized. The field notes included the demographics of each participant and instructor as well as the observed behaviors and verbal comments made by participants and instructors. I included specific dialogs and

interactions of the participants with each other and with the instructors. The Observational Charts for Participants (see Appendix C), as described by the *ILS,* and the Observational Charts for Instructors (see Appendix D), as described by the Grasha Teaching Style Survey, were included in the observation field notes to capture observed behaviors and comments of the participants and instructors.

In order to effectively track specific learning and teaching style preferences during the observations, I identified each participant and the instructor with a pseudonym. The descriptions of each participant and instructor, as labeled with a pseudonym, were included in the observation field notes. Whenever a participant or the instructor made a verbal or non-verbal reference related to the characteristics of a learning style or teaching style, respectively, I described gestures and/or wrote verbatim the comments in the appropriate boxes on the participant's or the instructor's observational chart.

Based on the frequency of the learning style characteristics for a particular observational period, I determined that the dominant characteristics based on the notations on the observational chart represented a preferred learning or teaching style for all participants and instructors, respectively. I was aware of the possibility that the participants and the instructors could have made comments or demonstrated behaviors throughout the observation period might have indicated multiple learning styles. This method of charting helped me to identify the learning style preferences of the participants and the teaching style preference of the instructors. It also helped me to validate or refute the outcomes of the Index for Learning Styles (ILS) and the Level 1 and Level 2 evaluations for participants and the Grasha Teaching Style Survey for

instructors. The duration of each observation period was 2 to 4 hours as scheduled two to three times per week during the 6-week training course. Specific dates and times depended on both my availability and the study participants' availability.

Interviews

Interviewing is a fundamental and widely used technique in anthropological studies (Jordan, 2003). In a typical interview setting, the researcher asks questions with one or more participants who answer questions in terms of their dispositions, motives, values, beliefs, concerns, or needs (Glesne, 2011). There are several types of interviews, including structured, semi-structured or loosely structured, and unstructured or conversational. In a structured interview, the questions are established prior to the interview and remain unchanged throughout the interview. Generally, all interviewees answer the same questions (Jordan, 2003). In a semi-structured or loosely structured interview, questions may emerge during the interview that may add to or replace pre-established questions. In an unstructured or conversational interview, there are no pre-established questions, and questions are asked spontaneously and based on the dialog of the conversation. A researcher uses only the research context or focus as the guide during an unstructured interview (Glesne, 2011).

For purposes of this case study research, I conducted semi-structured interviews with eight study participants, including the six training class participants and two training class instructors. The class participant interview protocol consisted of 15 questions divided into the four categories of prior industry experience, class expectations, training experience, and learning motivation. The instructor interview protocol consisted of eight questions representing the two categories of training design and facilitation. Each

interview was conducted face-to-face and was audio recorded. The semi-structured interview notes for the class participants and the instructors were formatted in the following manner (see Figure 4).

Interview Field Notes

Date: (day of the week, today's date)
Interview Sequence: (day xx of xx)
Start Time: (start time of interview)
Location: (site of the interview, city, state)

Respondent Profile: (demographical information of interviewee)
Age:
Gender:
Ethnicity:
Educational Background:
Occupation:

Detailed Notes……

Summary…..

End Time: (end time of observation period)

Figure 4. Format for interview field notes.

Specifically the semi-structured interviews included questions related to the participants' learning style preferences, teaching style preferences, classroom environment preferences, learning motivation, and overall learning experience (see Appendix E). The questions asked of the training instructors related to their personal teaching style preferences and what they did or did not do to help facilitate the learning

in the classroom (see Appendix F). The duration of each interview was 15 to 40 minutes and occurred two to three times per week during the 6-week training course. Specific dates and times depended on both my availability and that of the interviewees.

Quantitative Procedures

According to Spindler (1997), appropriate and careful use of quantitative analysis is often used to conduct a thorough research study. "Careful use of statistics defines relationships and parameters in a most valuable way that helps define what must be explored with direct observation and interviewing" (Spindler, 1997, p. 53).

The class participants completed two Level 1 evaluations, one for the instructor and one for the co-instructor, on the last day of week 4, also the last day of classroom instruction during new hire training. The instructor provided the instructions for completing the Level 1 evaluations. I reminded the participants to use their assigned pseudonyms, not their real names, on their evaluations. I explained that the results of the Level 1 evaluations would be used by the learning organization for ongoing training enhancements. I reminded them that the results would be analyzed as part of my study.

The class participants completed the Level 2 evaluations, also referred to as assessments, on the last day of each week. The instructor provided the instructions for completing the Level 2 evaluations. I informed the participants that they needed to use their real names on each assessment. The instructors explained that they would replace the participants' real names with their pseudonyms after their scores were recorded. I also explained that the results of the Level 2 evaluations would be used by the learning organization for performance tracking and by me for research purposes.

The class participants completed the ILS survey on the first day of new hire training. I provided the instructions on how to complete the survey and reminded the participants to use their pseudonyms rather than their real names on the survey. I also explained that the results of the ILS survey would be used only for research purposes and to generate broader training recommendations.

The first three weekly assessments were administered online and participants were allowed 1 hour to complete them. There were 30 questions on each of these assessments that included multiple-choice, fill-in-the-blanks, matching, and true/false. The final assessment was completed on the last day of week 4 training and administered online, but participants were allowed 3.5 hours to complete it. It consisted of 50 multiple-choice, fill-in-the-blanks, matching, and true/false items. Participants were granted more time for completing each assessment, if needed.

The class instructors completed the Grasha Teaching Styles Survey on the first day of new hire training. I provided the instructions for completing the survey and reminded the instructors to use their pseudonyms rather than their real names on the survey. I explained that the results would be used for research purposes and to generate broader training recommendations. The results along with a brief interpretation were immediately provided to each classroom instructor upon completion. The instructors labeled their surveys with their assigned pseudonym and emailed their results to me. I their results to the findings from the observations and interviews.

The results of the ILS, the Grasha Teaching Style Survey, and the Level 1 and Level 2 evaluations were used for comparison purposes only. The results were intended to validate or refute the study participants' own perceptions of their class

experiences and how they generally preferred to learn new concepts or teach. Content analysis of the instructors' feedback and other supporting documentation related to the training course were shared with the learning organization's management and were used to substantiate the findings.

Data Analysis

The purpose of analyzing data is to discover themes and patterns to help answer the research questions and to make practical recommendations for program enhancements. In general terms, a researcher organizes all collected data, including observed, heard, read, or experienced data to make sense out of the collection and to draw conclusions. There are many different ways to analyze data depending on the type of research employed.

Thematic analysis is one of the most meaningful qualitative approaches to qualitative data analysis. "Thematic analysis involves coding and segregating data for further analysis and description" (Glesne, 2011, p. 184). Themes and patterns are sought throughout the data and coded in some way to make comparisons and reveal any underlying complexities (Glesne, 2011). In applying the thematic analysis approach I audio recorded all interviews. They were then transcribed by a professional transcriptionist.

All observation and transcribed interview data were analyzed using NVivo software, an advanced qualitative data analysis tool supports both qualitative and mixed methods research projects. NVivo is a tightly integrated suite of tools that support the analysis of written texts, audio, web, social media, video, and graphic data. The interface of NVivo is Windows based and has a similar user interface to many of the

Microsoft Office applications. It facilitates the ability to manage, track, uncover, extract, connect, compare, and deeply analyze large amounts of data in flexible, creative, yet systematic ways. There were preset codes and themes of the data, such as preferred and least preferred learning styles and teaching styles. Additional codes and themes emerged during the review of the field notes and transcriptions.

To begin the analysis process, I created a list of major categories and sub-categories to better identify the themes throughout the research. I matched applicable quotes and notes from each of the observation studies, interviews, and supplemental documents to their respective categories and sub-categories. Once I reviewed the notes, I used the NVivo software to produce the codes, major themes, and categories. Of note, while I drew on ethnographic research methods and tools, I did not conduct an ethnographic research study. I conducted an ethnographically informed study.

Summary

This chapter discussed the five types of instrumentation used for this research. The study required the use of participant-observation and interviews. The ILS was used to measure productivity and learner motivation and the Grasha Teaching Style Survey was used to measure instructional and delivery style preferences of teachers, instructors, or other educators of adults. Additionally, the Level 1 evaluation was used to measure participants' immediate perceptions of the training program and the Level 2 evaluation was used to measure the participants' level of knowledge and skills gained during and immediately following the training program. The qualitative data collection tools, including the classroom observations and interviews, as well as the review of

internal documents and artifacts, provided additional insight to the behaviors of the instructors and the participants in the classroom.

CHAPTER 4

DATA ANALYSIS AND RESEARCH FINDINGS

The participants' perceptions, motivations, and performance were observed during and after attending a 6-week corporate training program. The purpose of this research was to determine (a) how instructors' teaching styles supported participants' learning styles and their perceptions of classroom environment and motivation to learning and (b) how the relationships between the instructors and participants impacted participant performance during the training program. The six research questions, noting that the first question was the study's major research question, that guided this study were the following:

1. What do participants consider as an optimal learning experience?
2. What do participants indicate for their preferred learning style?
3. What do participants indicate for their preferred classroom environment?
4. What do participants indicate for their motivation to learn?
5. What do instructors indicate for their preferred teaching style?
6. What strategies do instructors utilize that foster or inhibit the participants' learning optimization?

This chapter includes the results of the ethnographically informed case study research. The information gathered through the observation and interviewing processes of this case study research were organized into meaningful units of analysis. This case study contains the analysis of the results from two Level 1 evaluations and four Level 2 evaluations, the Index of Learning Styles (ILS) and the Grasha Teaching Style Survey. This chapter includes the following sections addressing the quantitative

results, qualitative results, and a summary. The quantitative results included the results of the ILS, Grasha Teaching Style Survey, and the Level 1 and Level 2 evaluations. The quantitative results either supported or refuted the findings from qualitative research. The qualitative results emerged from the themes discovered from the participant-observations and interviews.

During March of 2013, I sought and received permission from the learning organization to conduct a case study on one 6-week new hire training class. The class was scheduled to start on April 29, 2013 and continue through Friday, June 7, 2013. The study population consisted of six diverse class participants and two diverse class instructors. Several interrelated themes and sub-themes emerged from the qualitative data that provided a better understanding of how the participants of this study perceived their preferred learning style, learning environment and motivation to learn.

Quantitative Results

Level 1 Evaluations

On the Level 1 evaluation included 24 questions divided into the three sections titled Instructor, Course Materials, and Course Experience. The questions related to the facilitator were 1 through 11; the questions related to course materials were 12 through 18; and the questions related to course experience were 19 through 23. A final section allowed respondents to write free-form comments related to their overall class perceptions. The items were scored on a 4-point frequency scale ranging from *strongly disagree* (1) to *strongly agree* (4).

On the Level 1 evaluation for the co-instructor, 12 questions related to the co-instructor. A final section allowed respondents to write free-form comments related to

their overall class perceptions. The items were scored on a 4-point frequency scale ranging from *strongly disagree* (1) to *strongly agree* (4). The following section indicates the results of both Level 1 evaluations for each participant.

Level 1 Results Regarding Class Experience and Instructor

Benita rated the instructor, course materials, and course experience with high scores, including a perfect score on 4 out of 11 instructor-related questions. Benita's immediate reaction included strongly agreeing that the instructor maintained a courteous and professional demeanor throughout the class. She also strongly agreed that the instructor was knowledgeable about the course content, facilitated training in a way that held her interest, and presented the material at an appropriate pace.

Benita moderately agreed that the instructor communicated clearly and was easy to understand. She also moderately agreed that the instructor encouraged participation and involvement from the entire group and solicited questions and allowed adequate time to answer questions. Other areas that Benita moderately agreed that the instructor used relevant and understandable examples and/or illustrations, provided support and/or feedback throughout the course, and helped her to learn and apply the material. Interestingly, Benita neither agreed nor disagreed that the instructor gave the class enough time to practice newly learned content.

Benita was pleased with the course materials, including the participant guide, job aids, other handouts, and visual aids. Specifically, Benita moderately agreed that the course objectives were clearly identified, the PowerPoint presentations and visual aids helped her to understand the information, and the Participant Guide was easy to read and understand. Benita moderately agreed that the appearance and format of the

printed materials helped her access and retain information and that the examples and illustrations presented were relevant and understandable. She moderately agreed that the course materials were presented in a logical sequence and was satisfied with the course material.

Regarding Benita's course experience, she moderately agreed that the course was the right length for covering the content and increased her capability of performing current or future job responsibilities. She moderately agreed that the in-class exercises were effective in helping her learn. Finally, Benita moderately agreed that the course content met her expectations as a valuable use of her time. Benita commented that she "needed more practice time." She also commented that she sometimes felt uncomfortable when supervisors visited or observed the class unexpectedly as she felt like they were looking for the participants to make mistakes. Figures 5, 6, and 7 provide Benita's results.

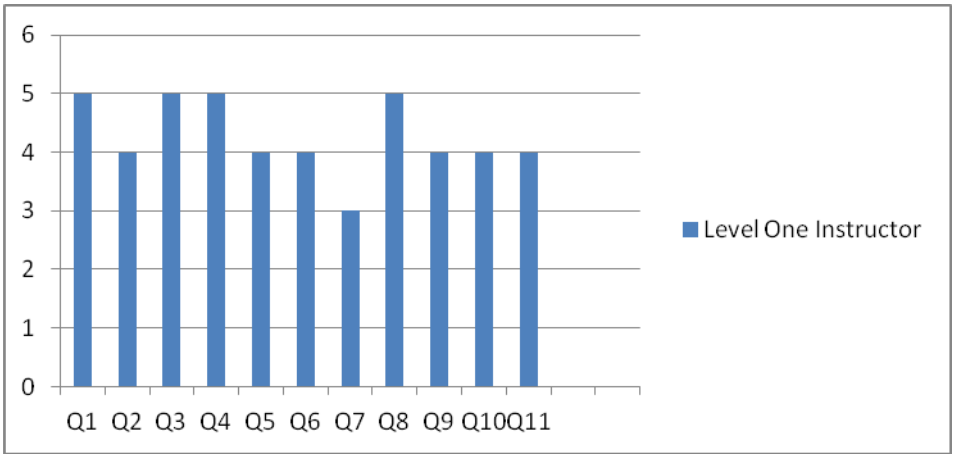


Figure 5. Benita's Level 1 results for instructor.

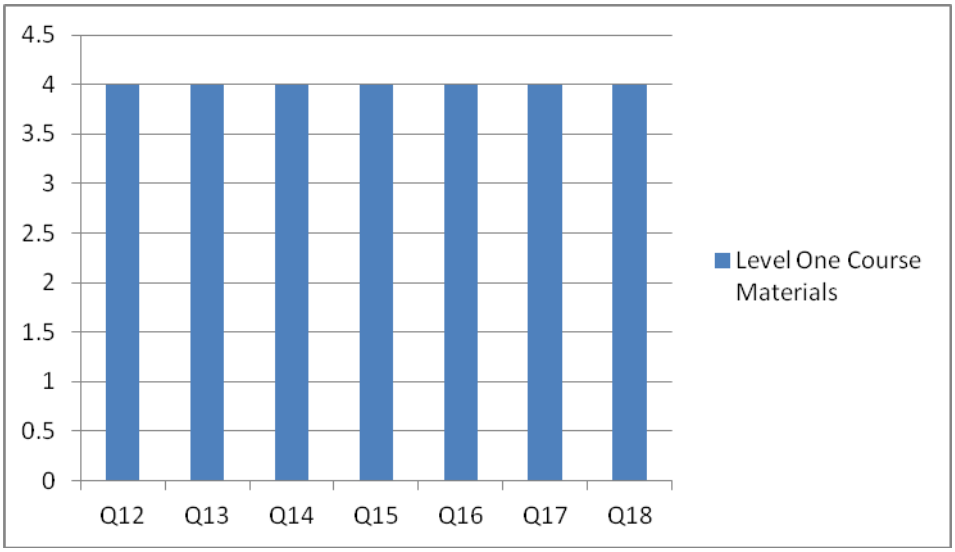


Figure 6. Benita's Level 1 results for course materials.

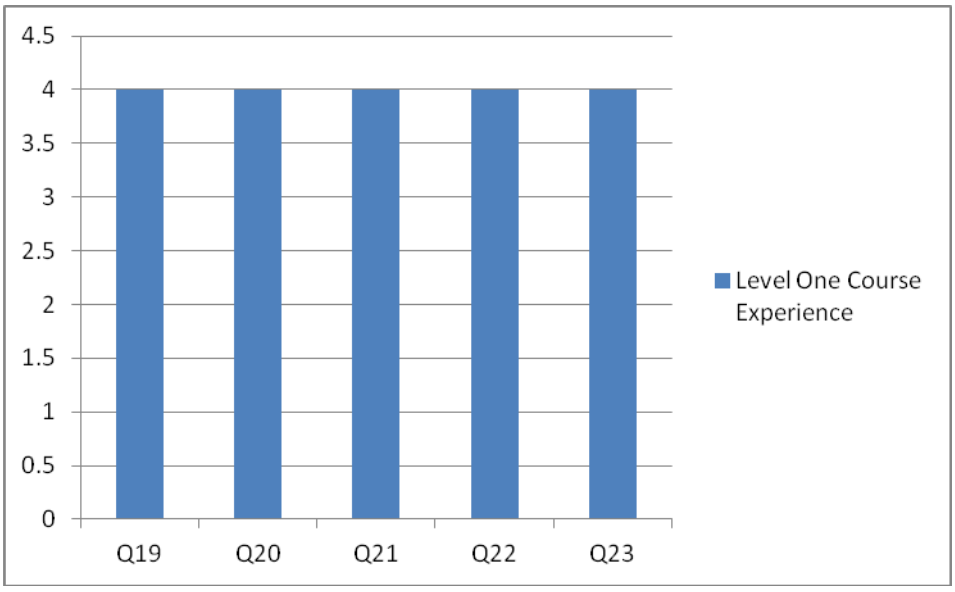


Figure 7. Benita's Level 1 results for course experience.

Carmen's scores indicated being somewhat pleased with the way the instructor conducted the class. She strongly agreed that the instructor encouraged participation and involvement from the entire group and solicited questions and allowed adequate time to answer questions. Carmen moderately agreed that the instructor was

courteous, professional, communicated clearly, and was easy to understand. She moderately agreed that the instructor demonstrated knowledge of the program materials, allowed adequate time to practice what she learned, and presented the material at an appropriate pace. Other areas about which Carmen moderately agreed regarding the instructor were the instructor's use of relevant and understandable examples and/or illustrations, provisions of support and/or feedback throughout the course, and help with her learning and applying the material.

Carmen indicated that she was pleased with the course materials. Specifically, Carmen moderately agreed that the instructor demonstrated knowledge of the program materials. Although she neither agreed nor disagreed that the PowerPoint presentation and visual aids helped her to understand the information, Carmen moderately agreed that Participant Guide was easy to read and understand. She responded that the appearance and format of the printed materials helped her access and retain information and that the examples and illustrations presented were relevant and understandable. She moderately agreed that the course materials were presented in a logical sequence and was satisfied with the course material.

Regarding Carmen's course experience, she neither agreed nor disagreed that the course was the right length for covering the subject. She did, however, moderately agree that the course increased her capability of performing current or future job responsibilities. She responded that the exercises they did in class were moderately effective in helping her learn. Finally, Carmen moderately agreed that the course content met her expectations as a valuable use of her time. She did not include any additional comments. Figures 8, 9, and 10 provide Carmen's results.

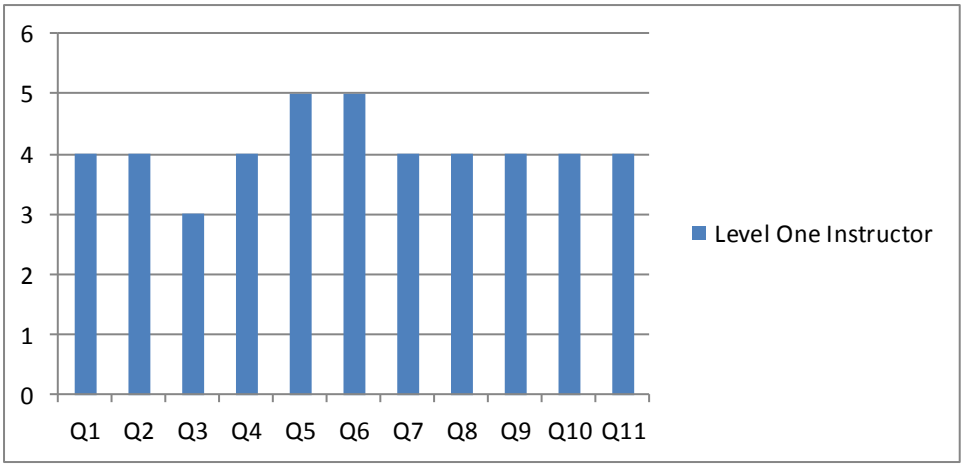


Figure 8. *Carmen's Level 1 results for instructor.*

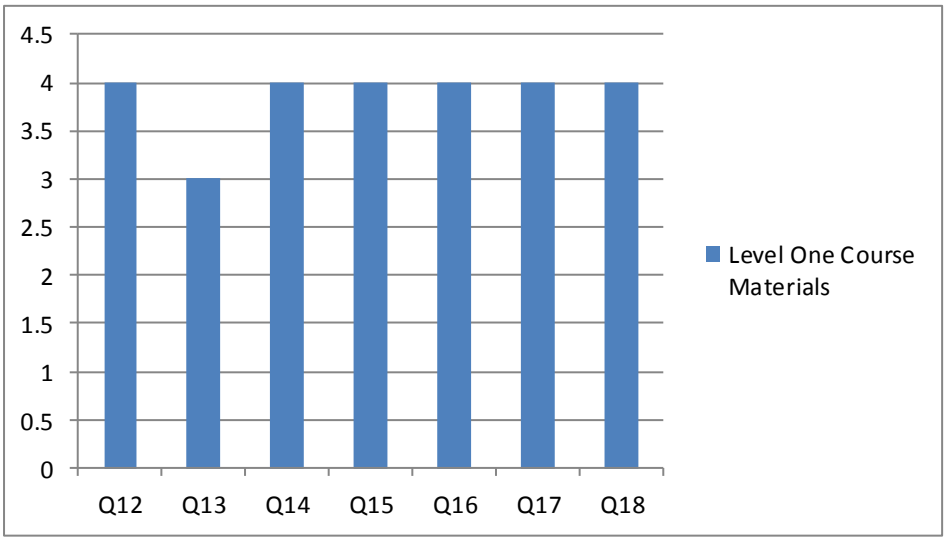


Figure 9. *Carmen's Level 1 results for course materials.*

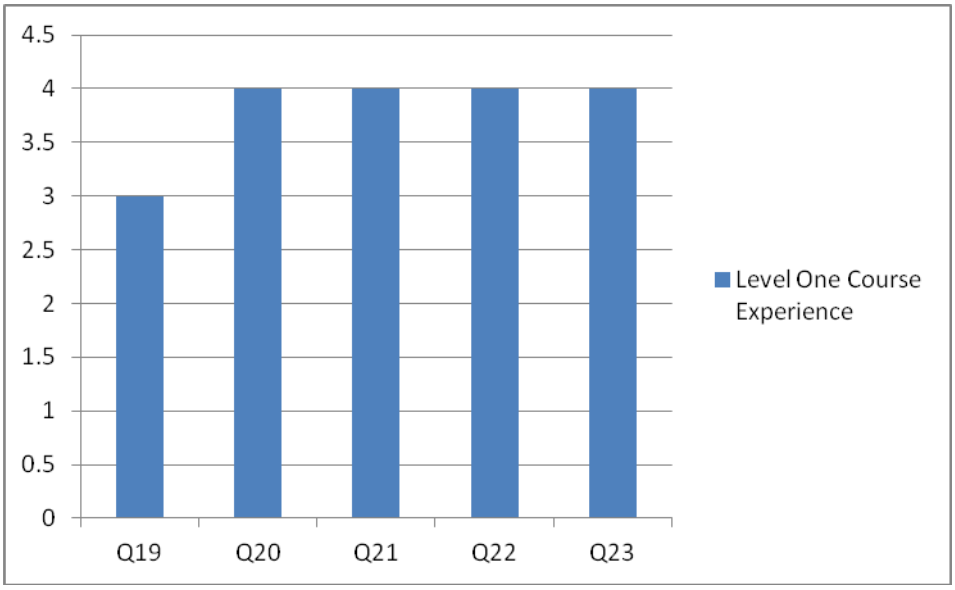


Figure 10. Carmen's Level 1 results for course experience.

Jasmin responded positively about the instructor in many areas, as she moderately agreed with 8 of the 11 instructor-related questions. In particular, Jasmin moderately agreed that the instructor was courteous and professional throughout the course, communicated clearly, and was easy to understand. Jasmin moderately agreed that the instructor demonstrated knowledge of the program materials, encouraged participation and involvement from the entire group, and solicited questions and allowed adequate time to answer questions. Jasmin moderately agreed that the instructor allowed her adequate time to practice what she learned, used relevant and understandable examples and illustrations, and provided support and feedback throughout the course. Jasmin neither agreed nor disagreed that the instructor facilitated training in a way that held her interest, presented the material at an appropriate pace, and really helped her to learn and apply the material.

Regarding the course materials, Jasmin moderately agreed that the course objectives were clearly identified and that the PowerPoint presentation and other visual

aids helped her to understand the information. Jasmin neither agreed nor disagreed that the Participant Guide was easy to read and understand, that the appearance and format of the printed materials helped her access and retain information, and that the examples and illustrations presented were relevant and understandable. She neither agreed nor disagreed that the course materials were presented in a logical sequence and that she was satisfied with the course material.

Jasmin was critical regarding her general course experience. Specifically, she disagreed that the course was the right length for covering the content and that the course increased her capability of performing current or future job responsibilities. She also disagreed that the course content met her expectations as a valuable use of her time. Jasmin neither agreed nor disagreed that the in-class exercises were effective in helping her learn. Jasmin did not include any additional comments. Figures 11, 12, and 13 provide Jasmin's results.

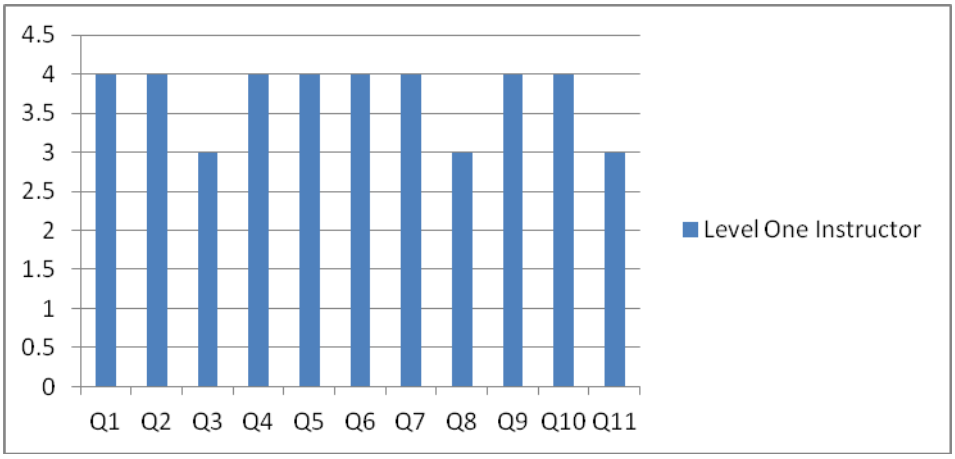


Figure 11. Jasmin's Level 1 results for instructor.

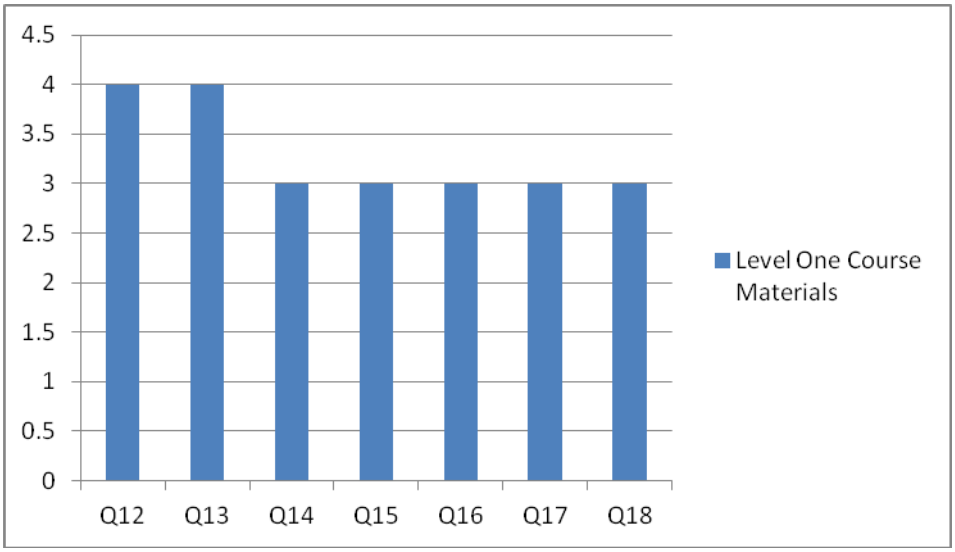


Figure 12. Jasmin's Level 1 results for course materials.

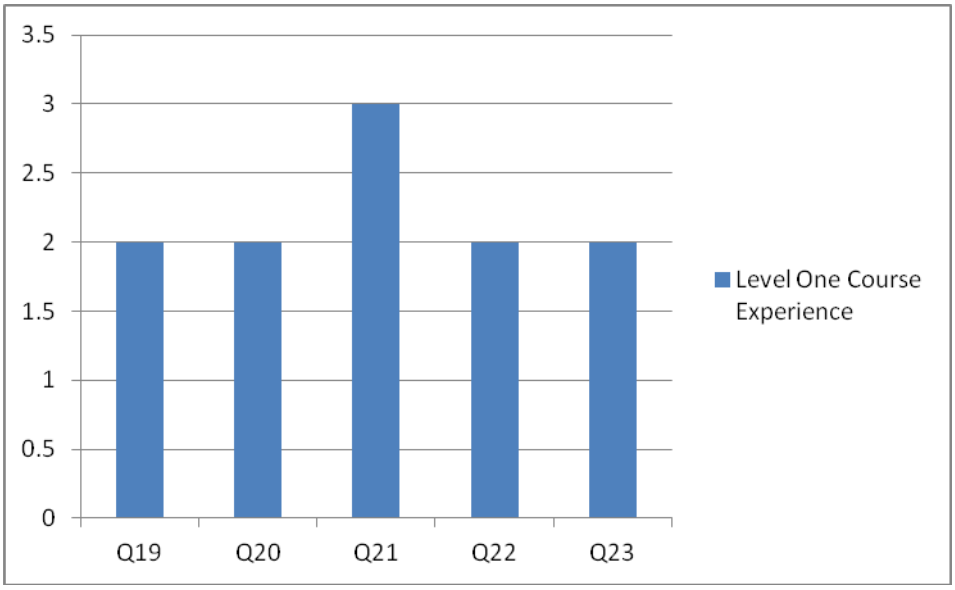


Figure 13. Jasmin's Level 1 results for course experience.

Martha was extremely pleased with the instructor and rated him with perfect scores on all the questions. In particular, she strongly agreed that the instructor was courteous and professional, communicated clearly, and understand and that he

facilitated training in a way that held her interest. Martha strongly agreed that the instructor demonstrated knowledge about the program materials, encouraged participation and involvement from the entire class, solicited questions, and allowed adequate time to answer questions and practice what they learned. She strongly agreed that the instructor presented the material at an appropriate pace. Martha strongly agreed that the instructor's use of examples and illustrations to reinforce her learning were relevant and understandable. She strongly agreed that the instructor provided support and feedback throughout the course and really helped her to learn and apply the course material.

Martha reacted very positively about the course materials, rating questions 12 through 18 with perfect scores, including how the course objectives were clearly identified, that the materials were presented in a logical sequence and the PowerPoint presentation, other visual aids, and participant guide were easy to follow for understanding the course material. She strongly agreed that all the printed materials were formatted appropriately to help her access and retain information and the examples and illustrations presented in class were relevant and understandable. Overall, Martha was extremely satisfied with the course materials.

Regarding Martha's course experience, she strongly agreed that the course was the right length for covering the subject and that the course increased her capability of performing current or future job responsibilities. She strongly agreed that the exercises were effective in helping her learn the course content. The course content met Martha's expectations as a valuable use of her time. She commented that it was a "great class" and that she "enjoyed it all." Figures 14, 15, and 16 provide Martha's results.

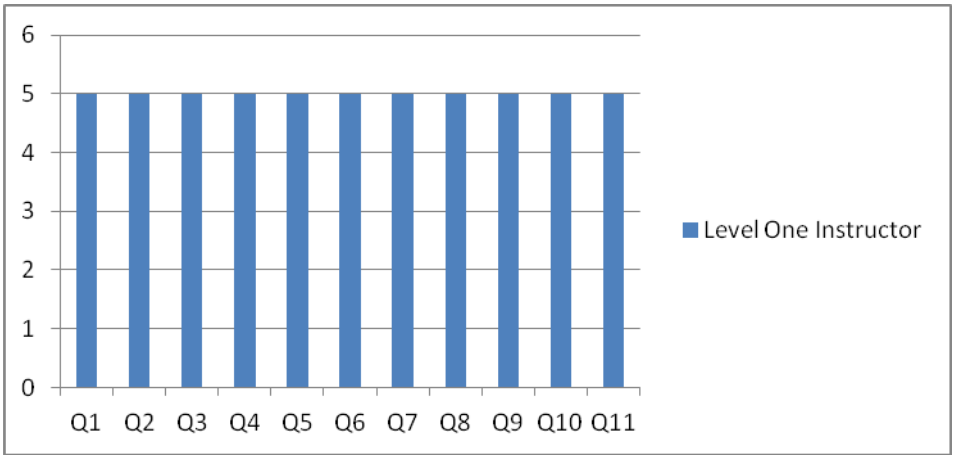


Figure 14. Martha's Level 1 results for instructor.

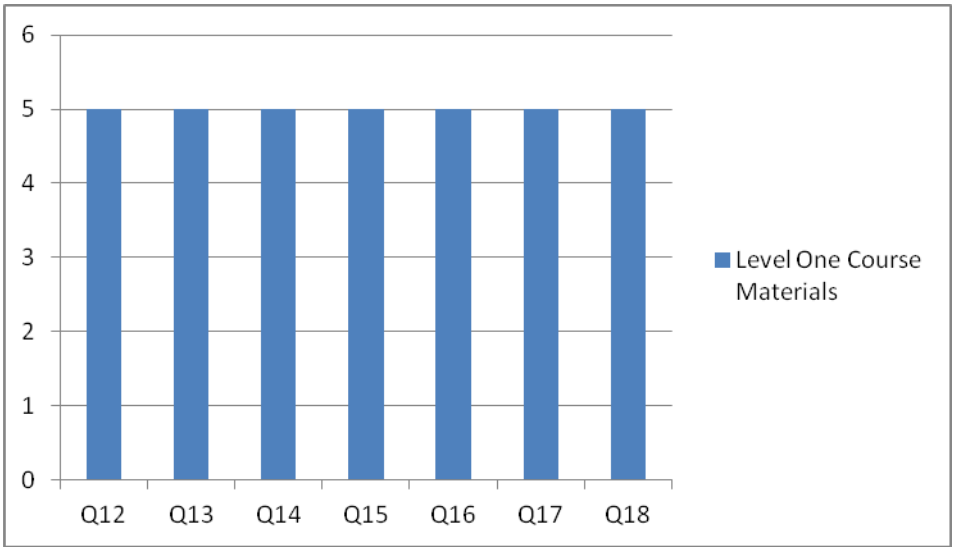


Figure 15. Martha's Level 1 results for course materials.

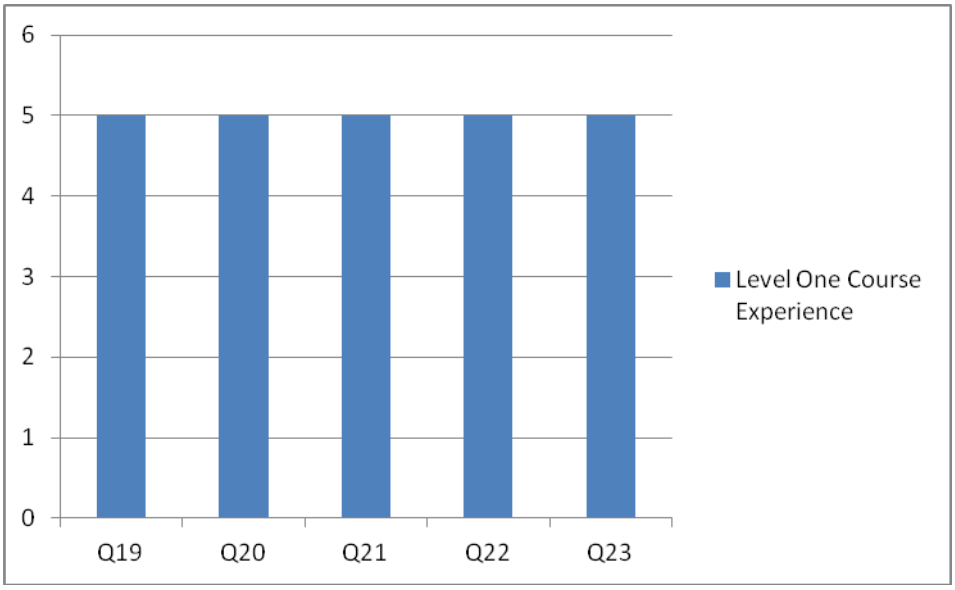


Figure 16. Martha's Level 1 results for course experience.

Similarly to Martha's immediate reaction about the course, Natalia was extremely pleased with the instructor and rated him with perfect scores on all the questions. In particular, she strongly agreed that the instructor was courteous and professional, communicated clearly, was easy to understand, and facilitated training in a way that held her interest. Natalia strongly agreed that the instructor demonstrated knowledge about the program materials, encouraged participation and involvement from the entire class, solicited questions, and allowed adequate time to answer questions and practice what was learned. Natalia strongly agreed that the instructor presented the material at an appropriate pace and that the instructor's use of examples and illustrations to reinforce her learning were relevant and understandable. She also strongly agreed that the instructor provided support and feedback throughout the course and really helped her learn and apply the course material.

Natalia reacted positively about the course materials, rating most questions with perfect scores, including strongly agreeing that the course materials were presented in a logical sequence. Specifically, she strongly agreed that the course objectives were clearly identified and the PowerPoint presentation and other visual aids helped her understand the course material. She also strongly agreed that all the printed materials were formatted appropriately to help her access and retain information and the examples and illustrations presented in class were relevant and understandable. Natalia moderately agreed that the Participant Guide was easy to read and understand. Overall, Natalia strongly agreed that she was satisfied with the course materials.

Regarding Natalia's course experience, she strongly agreed that the course was the right length for covering the subject and increased her capability of performing current or future job responsibilities. She strongly agreed that the exercises were effective in helping her learn the course content and that the course content met her expectations. Overall, Natalia strongly agreed that the course was a valuable use of her time. Natalia did not have any additional comments. Figures 17, 18, and 19 provide Natalia's results.

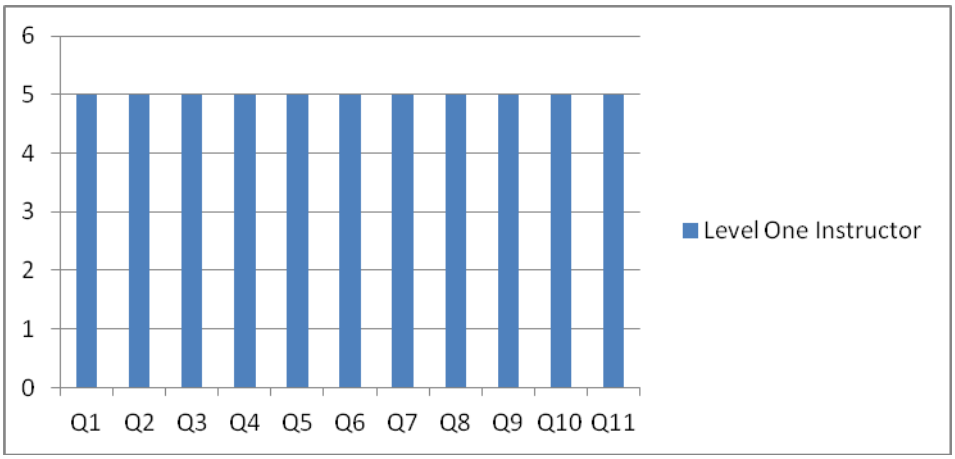


Figure 17. Natalia's Level 1 results for instructor.

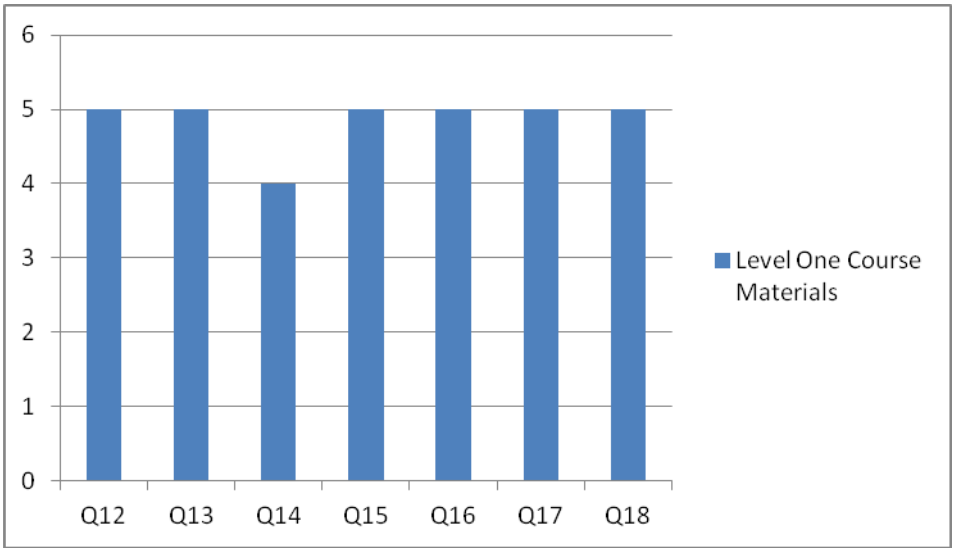


Figure 18. Natalia's Level 1 results for course materials.

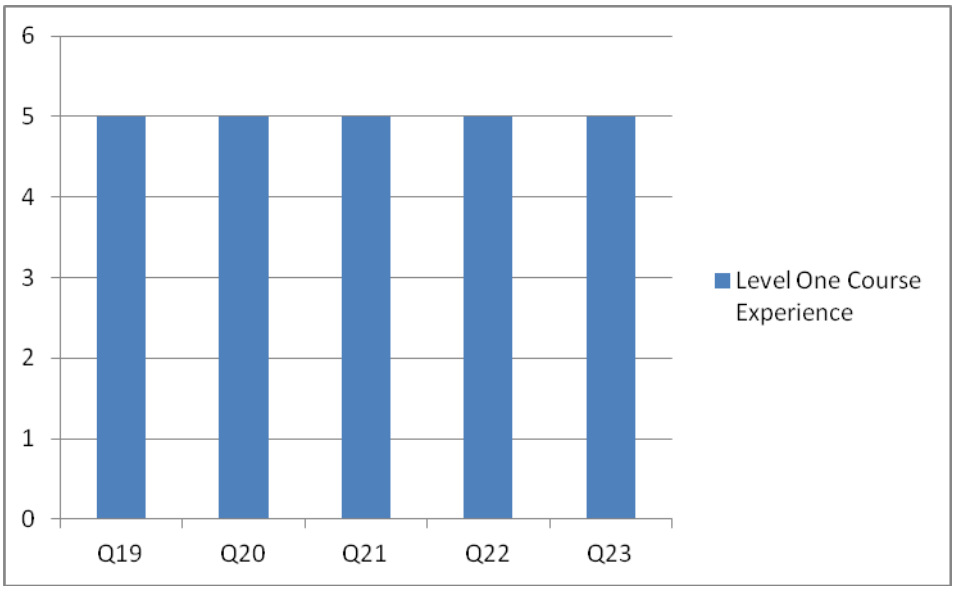


Figure 19. Natalia's Level 1 results for course experience.

Rosa was extremely pleased with the instructor and rated him with perfect scores on all the questions. In particular, she strongly agreed that the instructor was courteous and professional throughout the course, communicated clearly, was easy to understand, and facilitated training in a way that held her interest. Rosa strongly agreed that the

instructor demonstrated knowledge about the program materials, encouraged participation and involvement from the entire class, solicited questions, and allowed adequate time to answer questions and practice what they learned. She strongly agreed that the instructor presented the material at an appropriate pace. Rosa strongly agreed that the instructor's use of examples and illustrations to reinforce her learning were relevant and understandable. She strongly agreed that the instructor provided support and feedback throughout the course and really helped her to learn and apply the course material.

Rosa reacted very positively about the course materials, rating questions 12 through 18 with perfect scores, including how the course objectives were clearly identified; the materials were presented in a logical sequence; and the PowerPoint presentation, other visual aids, and the participant guide were easy to follow and helped her understand the course material. She strongly agreed that all the printed materials were formatted appropriately to help her access and retain information and the examples and illustrations presented in class were relevant and understandable. Overall, Rosa was extremely satisfied with the course materials.

Regarding Rosa's course experience, she moderately agreed that the course was the right length for covering the subject. She strongly agreed that the course increased her capability of performing current or future job responsibilities, that the exercises were effective in helping her learn the course content, and that the course content met her expectations. Overall, Rosa strongly agreed that the course was a valuable use of her time. She commented that she "enjoyed the class" and "the

instructors were patient and professional." Figures 20, 21, and 22 provide Rosa's results.

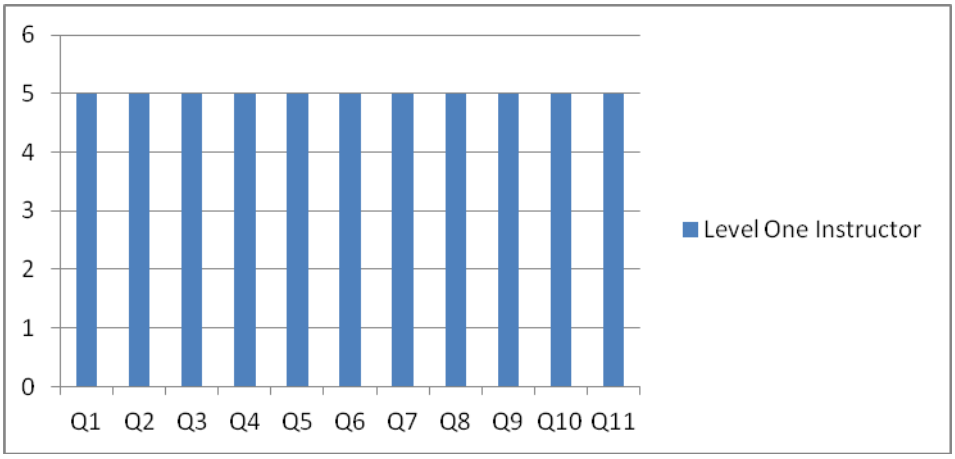


Figure 20. Rosa's Level 1 results for instructor.

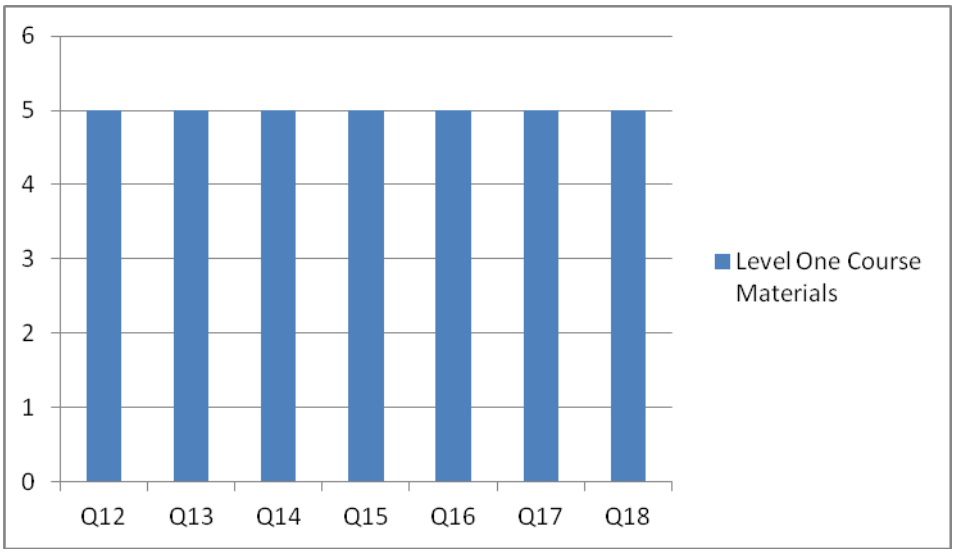


Figure 21. Rosa's Level 1 results for course materials.

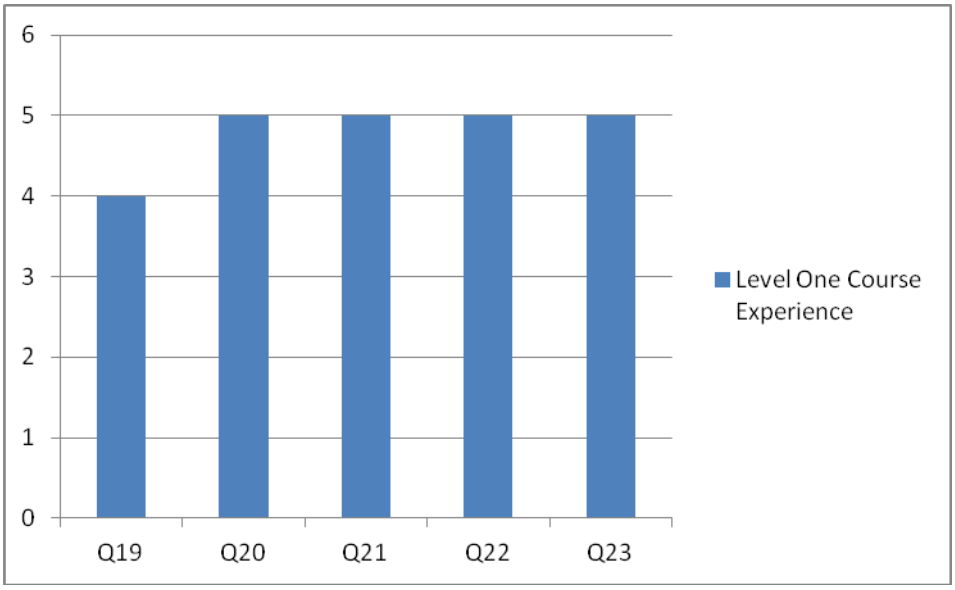


Figure 22. Rosa's Level 1 results for course experience.

Overall, the class participants' immediate reactions were positive about their classroom experience. The average rating for their overall reaction about the instructor was 4.33. Of that average, 16.7% had a neutral reaction regarding how the instructor helped with learning and applying the course material, while 33.3% moderately agreed with that statement and 50% strongly agreed with that statement.

Regarding their overall satisfaction with the course materials, the class participant average was 4.17. Of that average, 16.7% had a neutral reaction, while 50% moderately agreed that they were satisfied with the course materials and 33.3% strongly agreed that they were satisfied with the course materials. Finally, the average rating for their feelings about the value of the class was 4.17. Of that average, 16.7% moderately disagreed that the course was a valuable use of their time, while 33.3% moderately agreed and 50% strongly agreed.

Level 1 Evaluations Regarding Co-Instructor

Benita had mixed reactions regarding the co-instructor (Figure 23). Specifically, Benita rated the co-instructor perfectly on 4 of the 11 questions. Her immediate reaction was that she strongly agreed that the co-instructor encouraged participation and involvement from the entire group, solicited questions, and allowed adequate time to answer questions. Benita also strongly agreed that the co-instructor used relevant and understandable examples and illustrations and provided support and feedback throughout the course.

Benita moderately agreed that the co-instructor maintained a courteous and professional demeanor throughout the course and communicated clearly and was easy to understand. Benita moderately agreed that the co-instructor was knowledgeable of the program materials, that there was adequate time to practice what she learned, and that the co-instructor presented the material at an appropriate pace.

Although Benita neither agreed nor disagreed that the co-instructor facilitated training in a way that held her interest, she moderately agreed that the co-instructor really helped her to learn and apply the material. Benita's comments regarding the co-instructor were that "everything sounded very scripted. She was a good teacher, but not as good as Antonio."

Carmen was extremely pleased with the co-instructor and rated her with perfect scores on all the questions (Figure 24). In particular, Carmen strongly agreed that the co-instructor was courteous and professional throughout the course, communicated clearly, was easy to understand, and facilitated training in a way that held her interest. Carmen strongly agreed that the co-instructor demonstrated knowledge of the program

materials, encouraged participation and involvement from the entire class, solicited questions, and allowed adequate time to answer questions and practice over what was learned.

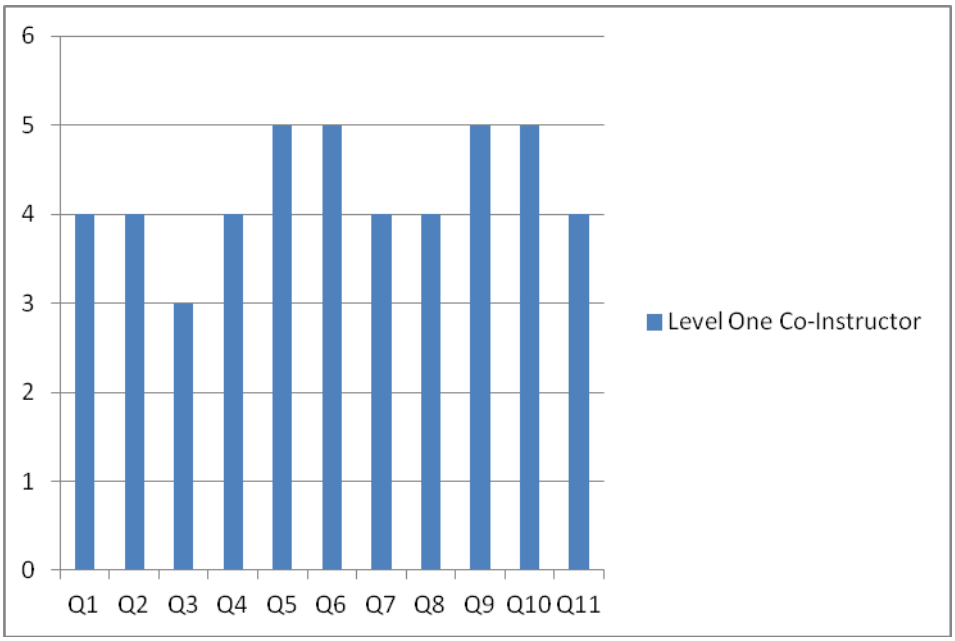


Figure 23. Benita's Level 1 results for the co-instructor.

Finally, Carmen strongly agreed that the co-instructor presented the material at an appropriate pace, used relevant and understandable examples and illustrations, provided support and feedback throughout the course, and really helped with learning and applying the course material. Carmen commented that the co-instructor's style of teaching "is what I'm used to." She added, "She wasn't as fun as Antonio, but I understood her much better. I enjoyed her class."

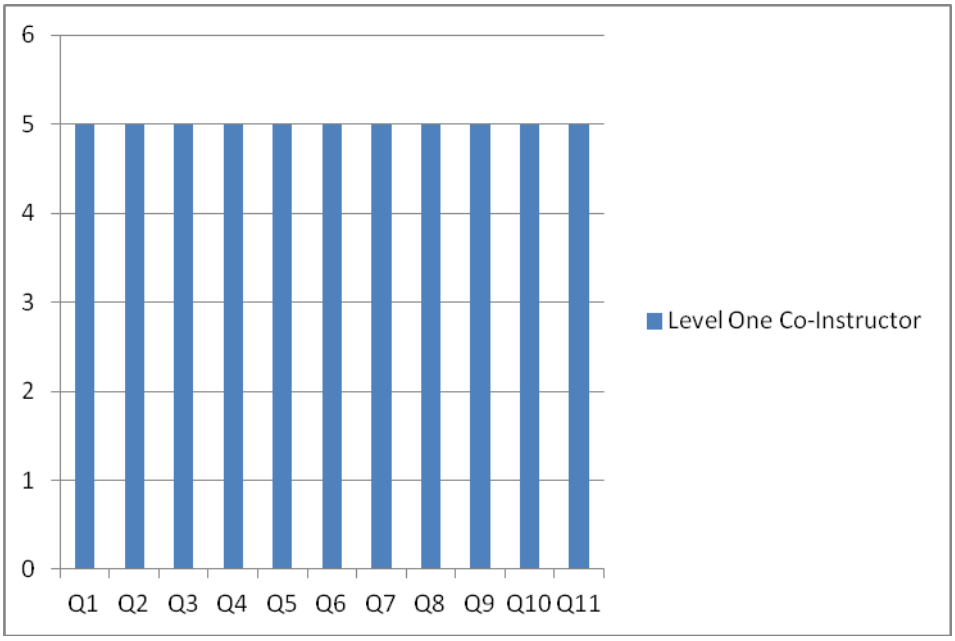


Figure 24. Carmen's Level 1 results for the co-instructor.

Jasmin was felt moderately positive about the co-instructor for all questions (Figure 25). In particular, Jasmin moderately agreed that the co-instructor was courteous and professional throughout the course, communicated clearly, was easy to understand, and facilitated training in a way that held interest. Jasmin moderately agreed that the co-instructor demonstrated knowledge of the program materials, encouraged participation and involvement from the entire class, solicited questions, and allowed adequate time to answer questions and practice over what was learned. Finally, Jasmin moderately agreed that the co-instructor presented the material at an appropriate pace, used relevant and understandable examples and illustrations, provided support and feedback throughout the course, and really helped her to learn and apply the course material. Jasmin commented that the topic that the co-instructor facilitated "was better than learning computer stuff." Jasmin commented that the co-instructor's class was a "nice break from the over teaching of policies and procedures."

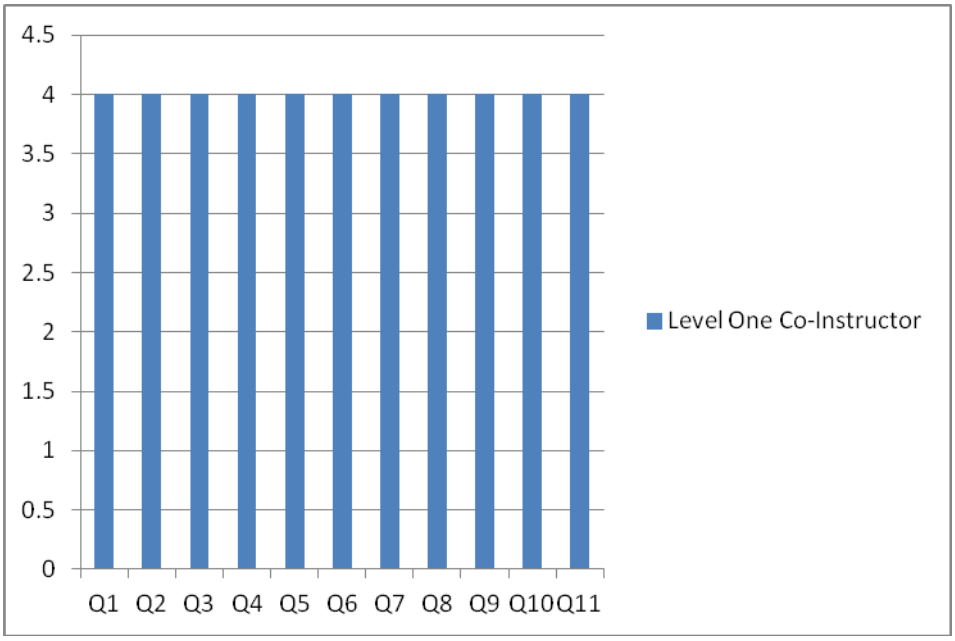


Figure 25. Jasmin's Level 1 results for the co-instructor.

Martha's immediate reactions regarding the co-instructor were mixed (Figure 26). She strongly agreed with most statements regarding the co-instructor. In particular, she strongly agreed that the co-instructor was courteous and professional throughout the course and demonstrated knowledge of the program materials. Martha strongly agreed that the co-instructor encouraged participation and involvement from the entire group and allowed adequate time for soliciting and answering questions and practicing what she learned. Martha strongly agreed with the co-instructor's use of relevant and understandable examples and illustrations and provisions of support and feedback throughout the course.

Martha moderately agreed that the co-instructor communicated clearly and was easy to understand. She moderately agreed that the co-instructor facilitated in a way that held her interest and presented the material at an appropriate pace. Finally, Martha

moderately agreed that overall the co-instructor really helped her learn and apply the material. Martha commented that the co-instructor's topics were good.

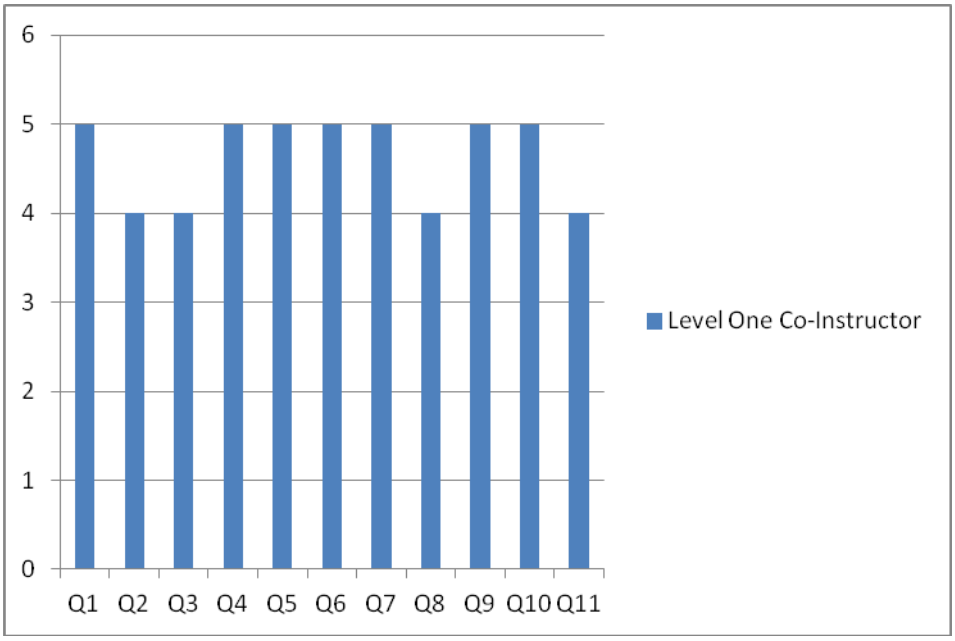


Figure 26. Martha's Level 1 results for the co-instructor.

Natalia strongly agreed with most statements regarding the co-instructor, rating her perfectly on 8 out of 11 questions (Figure 27). In particular, Natalia strongly agreed that the co-instructor was courteous and professional throughout the course and the co-instructor demonstrated knowledge of the program materials. Natalia strongly agreed that the co-instructor encouraged participation and involvement from the entire group and allowed adequate time for soliciting and answering questions. She strongly agreed that the co-instructor presented the material at an appropriate pace, used relevant and understandable examples and illustrations, and provided support and feedback throughout the course. Additionally, Natalia strongly agreed that overall the co-instructor really helped her learn and apply the material. Natalia moderately agreed that the co-instructor communicated clearly and was easy to understand. She moderately

agreed that the co-instructor facilitated in a way that held her interest and allowed adequate time to practice what they learned.

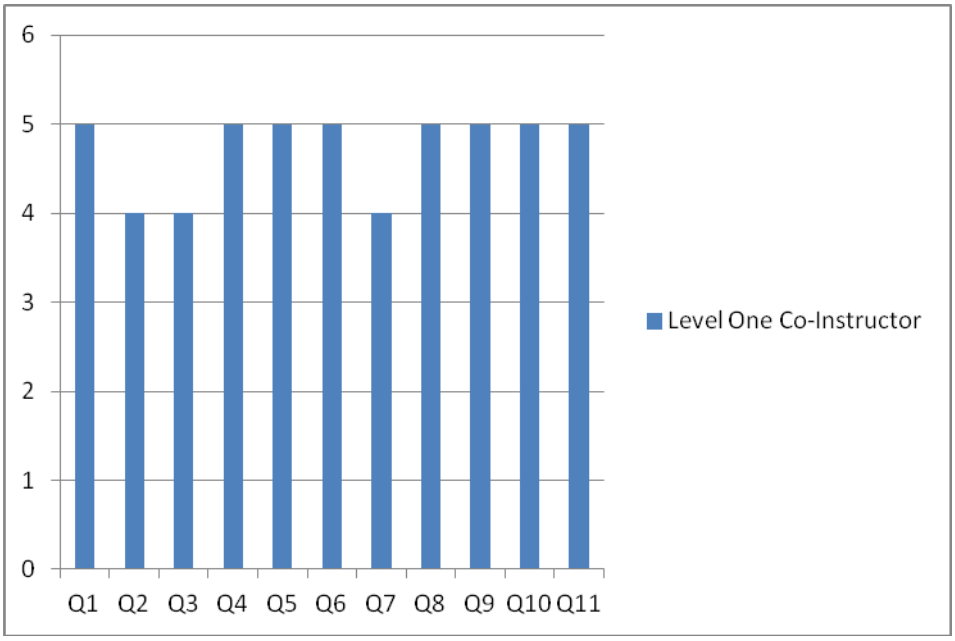


Figure 27. Natalia's Level 1 results for the co-instructor.

Rosa strongly agreed with 7 out of 11 statements regarding the co-instructor (Figure 28). In particular, she strongly agreed that the co-instructor was courteous and professional, communicated clearly, was easy to understand, and facilitated in a way that held her interest. Rosa strongly agreed that the co-instructor demonstrated knowledge of the program materials and encouraged participation and involvement from the entire group. Rosa also strongly agreed that the co-instructor used relevant and understandable examples and illustrations and provided support and feedback throughout the course.

Rosa moderately agreed that the co-instructor allowed adequate time for soliciting and answering questions and for practicing what she learned. Additionally, Rosa moderately agreed that the co-instructor presented the material at an appropriate

pace. Overall, Rosa moderately agreed that the co-instructor really helped her learn and apply the material. She commented, “at times I felt like we were going a bit fast like we had to hurry up and finish a chapter without really going over it enough.” She added that other than the pace moving too fast, she thought the class was very interesting.

Overall, the class participants’ immediate reactions on the Level 1 evaluation were positive about the co-instructor. The average rating for their overall reaction about the co-instructor was 4.33. Of that average, two-thirds (4 out of 6) moderately agreed that the co-instructor helped them learn and apply the course material, while one-third (2 out of 6) strongly agreed that the co-instructor helped them learn and apply the course material.

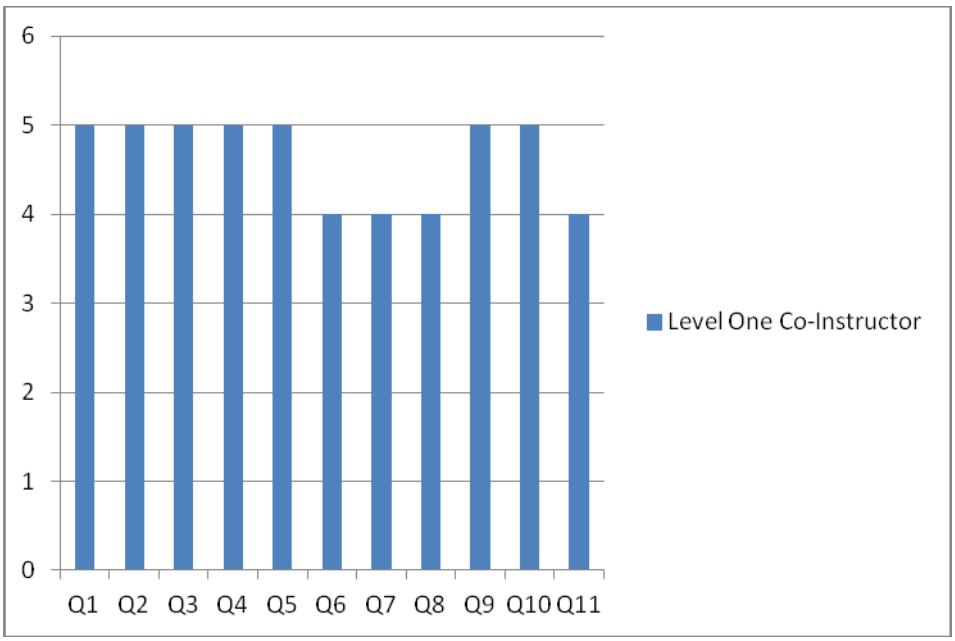


Figure 28. Rosa’s Level 1 results for the co-instructor.

Level 2 Evaluation

Benita improved her scores each week, with the exception of week 4 when her core dipped slightly by just one point (Figure 29). For the first assessment, Benita

scored an 84%. She improved to an 86% for the second assessment and continued to improve in the following week, scoring a 90%. For the final assessment during the fourth week, Benita scored an 89%.

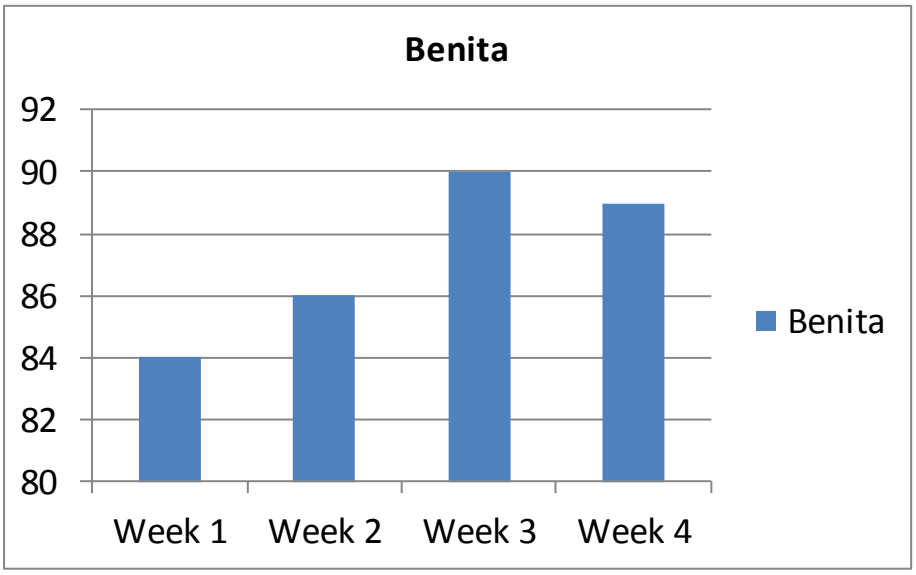


Figure 29. *Benita's Level 2 results.*

Although Carmen posted some of the highest scores each week, her performance dropped each week (Figure 30). For the first assessment, Carmen scored 97%. She fell slightly for the second assessment by scoring 95%. She continued her trend downward by scoring a 93% on the third assessment, even though that was the highest score among the participants that week. Finally, Carmen scored a 92% on the final assessment during week 4.

Jasmin scored a 97% on the first assessment and dropped two points on the second assessment with a score of 95% (Figure 31). She continued downward in the following week for the third assessment by scoring a 92%. For the fourth assessment, Jasmin improved slightly by scoring a 93%. Jasmin's score on the final assessment was the highest among the participants.

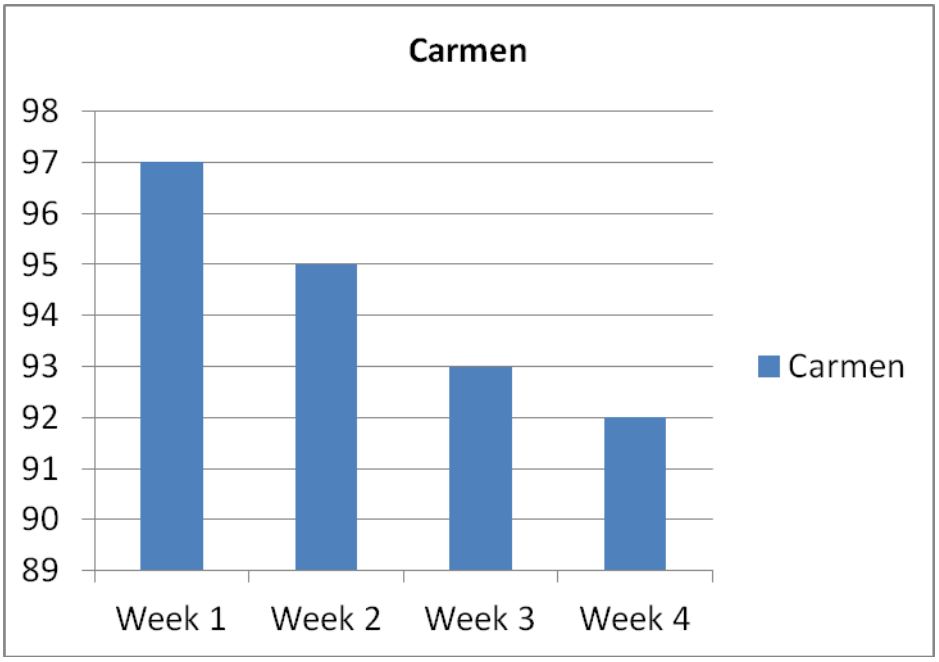


Figure 30. Carmen's Level 2 results.

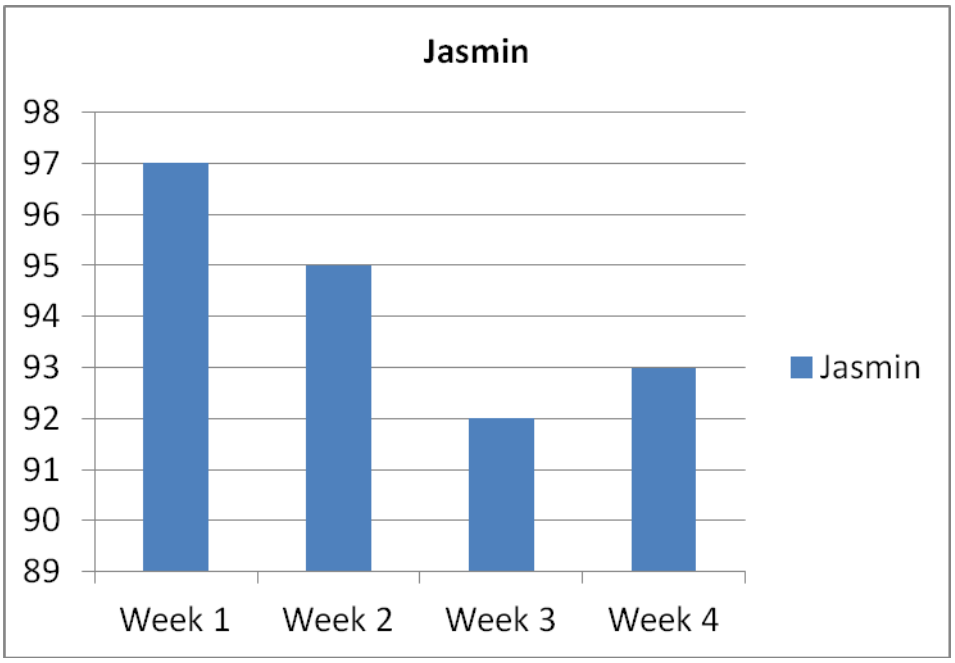


Figure 31. Jasmin's Level 2 results.

Martha scored a 91% for the first assessment and dropped to an 89% for the second assessment (Figure 32). Her score continued to drop in the following week with

an 88% on the third assessment and the second lowest grade among the participants. Martha did improve slightly for the fourth assessment by scoring an 89%.

Natalia scored a 97% on the first assessment and dropped two points to score a 95% on the second assessment (Figure 33). She dropped several points on the third assessment to a score of 90%. Her downward trend continued with her fourth assessment score of 89%.

Rosa barely passed her first assessment with score of 81% (Figure 34). It was the lowest score of all the participants. She improved to an 84% for her second assessment and maintained 84% for both the third and fourth assessments. Although Rosa maintained a positive average, each of her subsequent scores represented the lowest posted scores among the participants for weeks 2, 3, and 4.

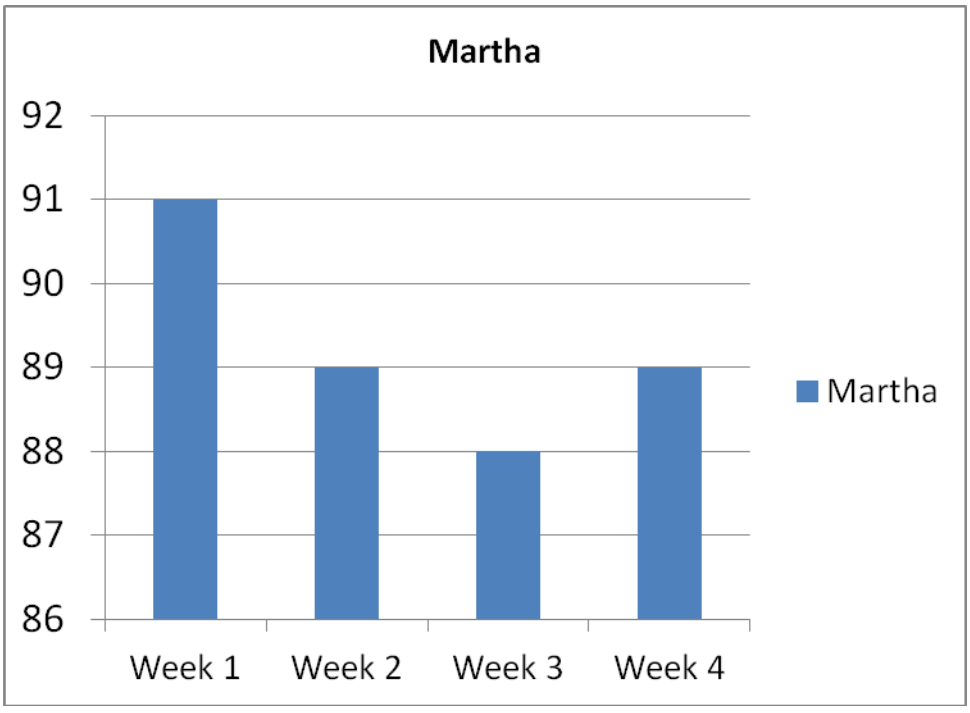


Figure 32. Martha's Level 2 results.

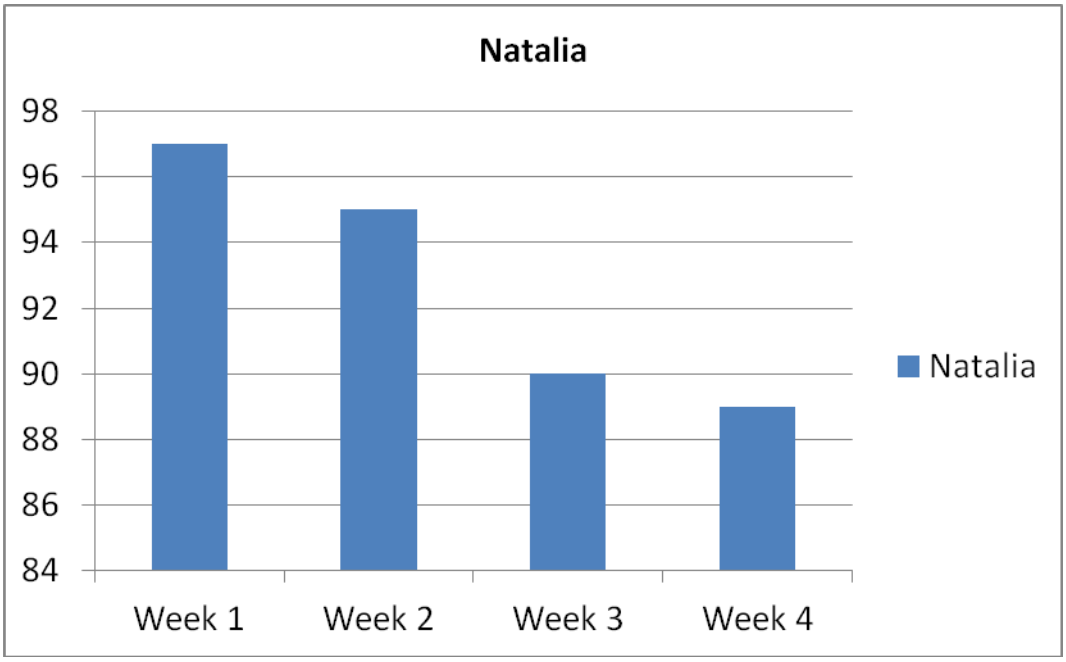


Figure 33. Natalia's Level 2 results.

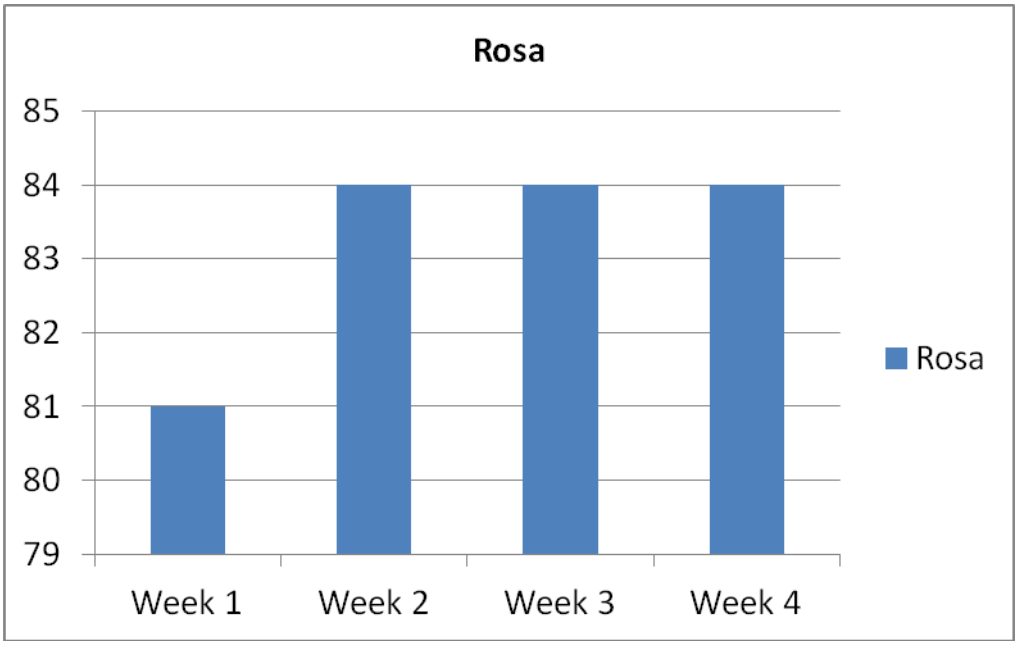


Figure 34. Rosa's Level 2 results.

Overall, the participants passed all of the assessments by scoring over 80% (see Figure 35). Rosa tended to display the lowest scores of the class, while Jasmin and Carmen maintained scores above 90% for each of the four assessments. Benita and

Rosa provided the most improved scores from week to week. Benita improved by four points from the second assessment to the third assessment, and Rosa improved by three points from the first assessment to the second assessment. On the contrary, Natalia had the largest decrease in scores from week to week, for example, dropping from 95% for the second assessment to 90% for the third assessment.

Finally, Natalia and Carmen were the only two participants with continued declines from week to week. Natalia started with a 97% for the first assessment and ended with an 89% for the fourth assessment. Carmen started with a 97% for the first assessment and ended with a 92% for the fourth assessment.

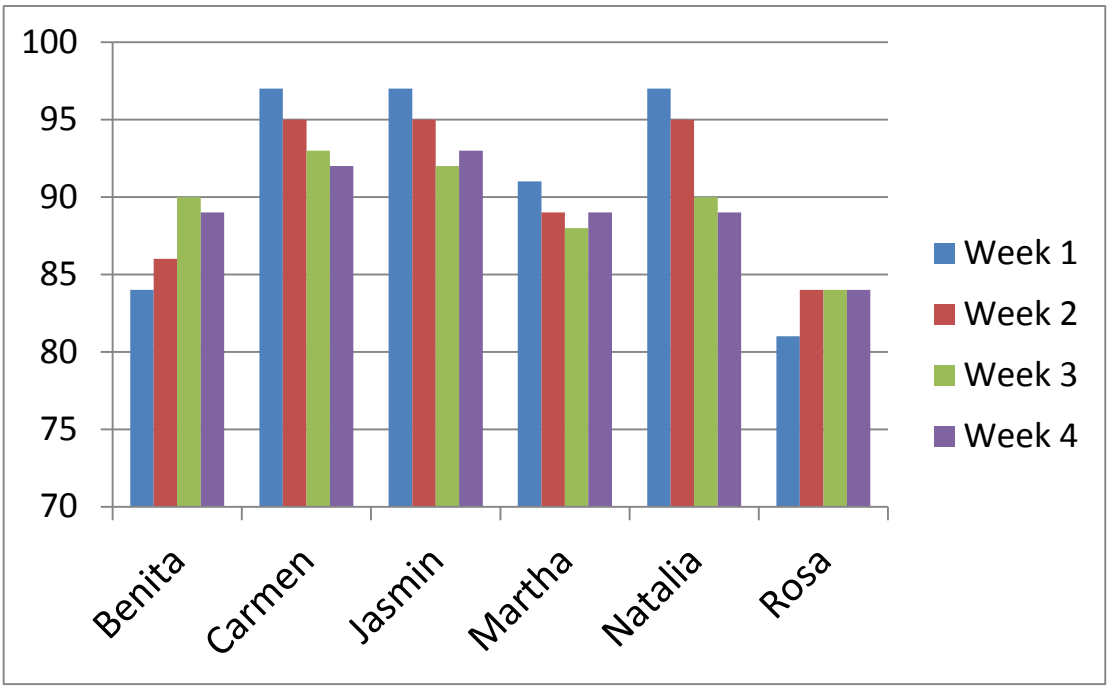


Figure 35. All participants' Level 2 results.

ILS Results

The participants completed the ILS online. The ILS consisted of 44 questions and respondents chose either response *a* or response *b* as their answers. The results

were scaled along two dimensions. The first or left dimension included active, sensing, visual, and sequential. The second or right dimension included reflective, intuitive, verbal, and global. The results ranged from 11 to 1 (11, 9, 7, 5, 3, and 1) on the left side of the scale and 1 to 11 (1, 3, 5, 7, 9, and 11) on the right side of the scale. Scores were indicated with the letter X above the result location on the result graphic.

Scores of 1 to 3 indicated that the respondent was fairly well balanced in both dimensions on the scale. Scores of 5 to 7 indicated that the respondent had a moderate preference for that dimension and learned more easily in a teaching environment that favored that dimension. Scores 9 to 11 indicated that the respondent had a very strong preference for that dimension. The respondent might have real difficulty learning in an environment that does not support that preference. Of note, these preferences might also change over time and depending on the learning situation or environment (Felder, 1993).

Benita's scores indicated that she is a moderately active learner (Figure 36). Benita enjoyed working with others as opposed to working alone and enjoyed trying things out, directly interacting with the material, and brainstorming ideas with others. She was a balanced sensing and intuitive learner with a slight preference on the sensing dimension. Benita was able to work and learn using concrete, factual, and detailed information or using abstracts and conceptual types of information. Benita was a moderately sequential learner and most often preferred to learn linearly and in small, logical steps.

Carmen's scores indicated that she was a balanced active and reflective learner, who worked well in group settings and alone or in very small groups (Figure 37). She

enjoyed trying things out, directly interacting with the material, and brainstorming ideas with others, but she also may prefer to think things through before reacting. Carmen indicated a strong preference for sensing, preferring to be detail-oriented and working and learning with concrete facts and real world applications. Because of her strong preference to sensing, Carmen could have difficulty adjusting in a learning environment expecting her to use creativity, abstract meanings, and theories. Carmen was a balanced visual-verbal learner, with a slight preference on visual learning. She appreciated the charts, illustrations, pictures, and other visual aids, lectures by the instructor, and reading assignments. Finally, Carmen was a strong sequential learner, who preferred to learn linearly, with small logical steps.

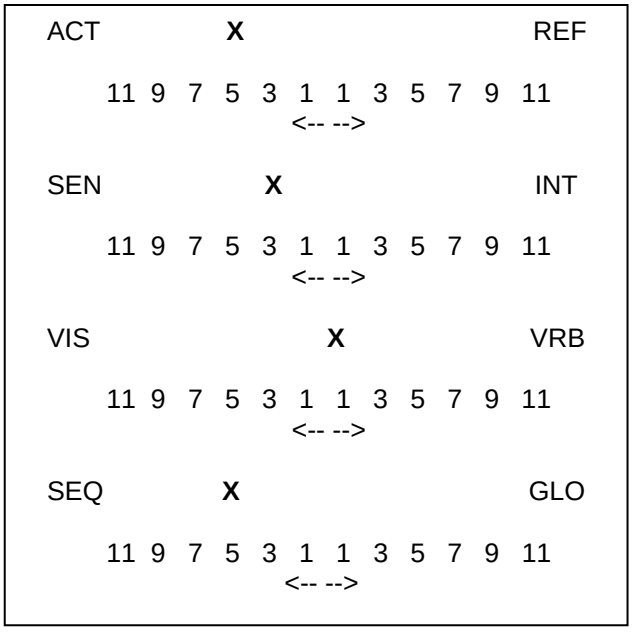


Figure 36. Benita's ILS results.

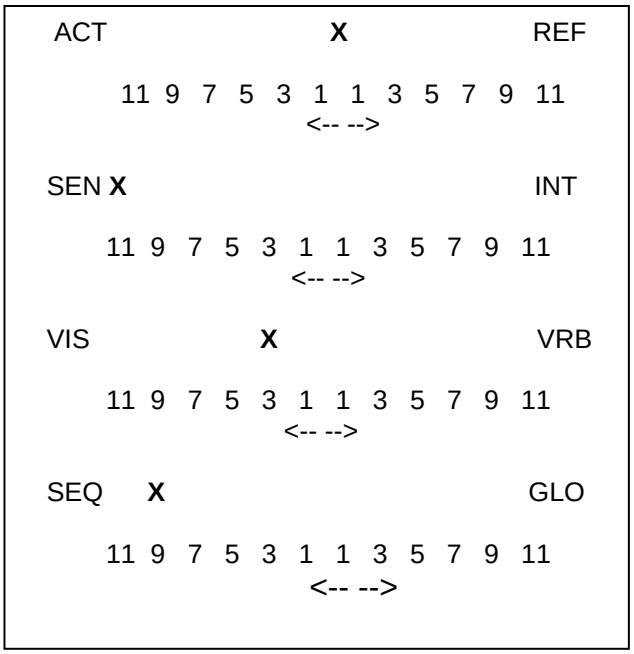


Figure 37. Carmen's ILS results.

Jasmin's scores indicated that she was a moderately active learner who preferred most often to work with others rather than working alone (Figure 38). She enjoyed trying things out and brainstorming ideas with others most of the time. Jasmin indicated a strong preference for sensing and preferred to be detail-oriented along with working and learning using concrete facts and real world applications. Because of her strong preference for sensing, Jasmin could have difficulty adjusting in a learning environment expecting her to use creativity, abstract meanings, and theories. Jasmin was also a balanced Visual and Verbal learner, with a slight preference on the right dimension for Verbal learning. She appreciated the charts, illustrations, pictures and other visual aids as well as the lecture that the instructor provided and the reading assignments. Finally, Jasmin was a balanced sequential and global learner. At times, she preferred to learn linearly, with small logical steps. At other times, she preferred to take a holistic, unconnected, and fragmented approach to learning.

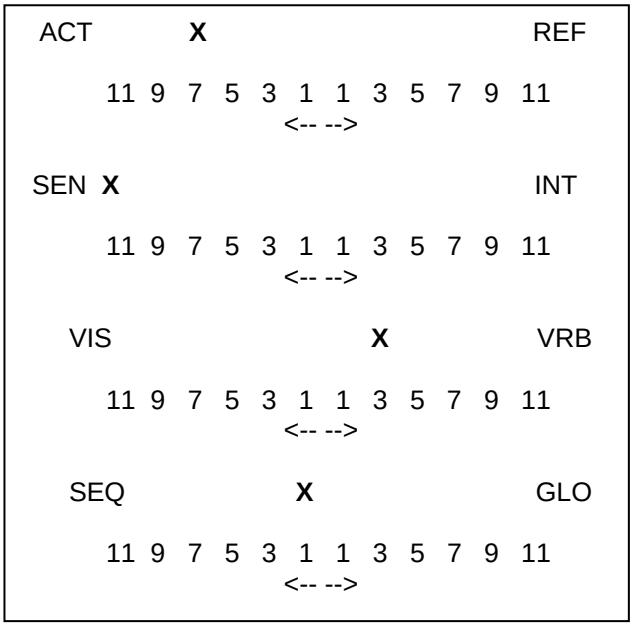


Figure 38. Jasmin's ILS results.

Martha's scores indicated that she was a moderately active learner (Figure 39). Martha enjoyed working with others rather than working alone. She enjoyed trying things out and brainstorming ideas with others. Martha indicated a moderate preference for sensing and most often preferred to be detail-oriented while working and learning with concrete facts and real world applications. Martha was a balanced visual-verbal learner. She appreciated the charts, illustrations, pictures, and other visual aids. She appreciated the instructor's lectures and the reading assignments. Finally, Martha was a moderately sequential learner, who most often preferred to learn linearly and in small, logical steps.

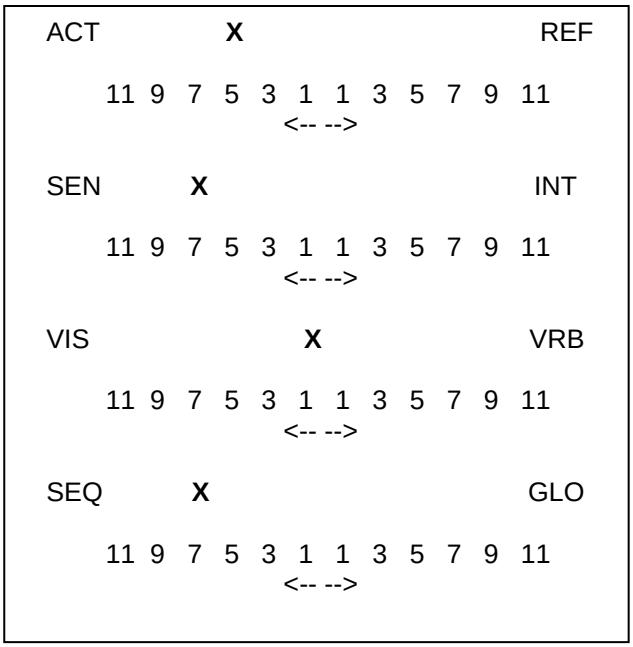


Figure 39. Martha's ILS results.

Natalia's scores indicated that she strongly preferred active learning with a minor appreciation for reflective learning (Figure 40). Natalia usually enjoyed working with others and rarely worked well alone. She enjoyed trying things out, directly interacting with the material, and brainstorming ideas with others. Natalia was a balanced sensing-intuitive learner and had a slight preference toward the sensing dimension. Natalia could work and learn using concrete, factual, and detailed information or using abstracts and conceptual types of information. Natalia indicated a strong preference for visual learning and preferred to learn usually with charts, illustrations, pictures, and other visual aids. Natalia did not appreciate the instructor's lectures or the reading assignments. Because of Natalia's strong preference for visual learning, she could have difficulty learning in an environment dominated by lectures, readings, and verbally oriented delivery methods. Finally, Natalia was a balanced sequential-global learner.

At times, she preferred to learn linearly with small logical steps, and at other times, she preferred to take a holistic, unconnected, and fragmented approach to learning.

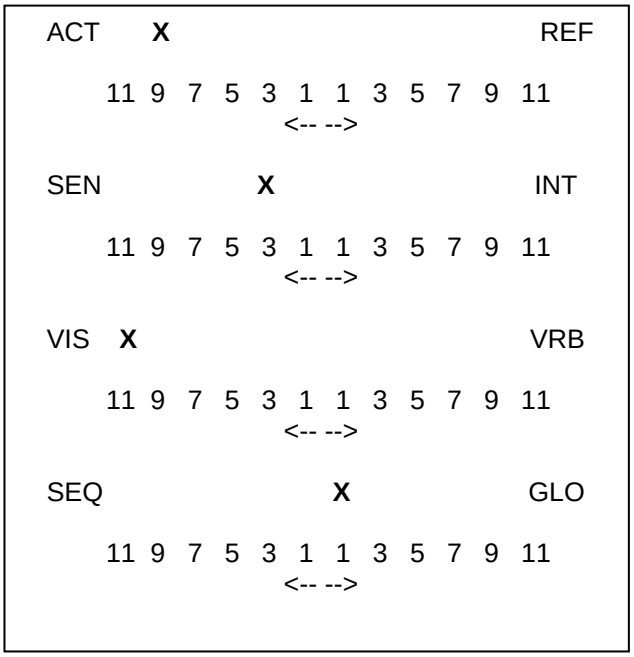


Figure 40. Natalia's ILS results.

Rosa's scores indicated that she had strong preferences for only the four left dimensions of the learning styles (Figure 41). Specifically, Rosa indicated a strong preference for active learning. She usually enjoyed working with others and rarely worked well alone. She enjoyed trying things out, directly interacting with the material, and brainstorming ideas with others. Rosa indicated a strong preference for sensing and preferred to be detail-oriented along with working and learning with concrete facts and real world applications. She indicated a strong preference for visual learning and preferred to learn usually with charts, illustrations, pictures, and other visual aids. Rosa did not appreciate the instructor's lectures or the reading assignments. Finally, Rosa was a strong sequential learner and preferred to learn linearly with small logical steps.

Because of her strong preferences on the left dimension, Rosa may find it difficult to work or learn in environments predominantly right dimension oriented. She might not appreciate thinking things through, working alone or in small groups as reflective learners do, or using theories or abstract ideas and concepts to learn as intuitive learners do. Rosa could have difficulty with lectures, reading assignments, verbally oriented learning, or absorbing information randomly and without connections as global learners do.

Overall, the participants indicated preferences mostly for the same learning styles (Table 9). Most participants indicated a preference for active learning, with only one participant being fairly balanced between active learning and reflective learning. In addition, most participants indicated a preference for sensing learning, with two participants being fairly balanced between sensing learning and intuitive learning. Four out of 6 participants (67%) were fairly balanced between visual learning and verbal learning. The other two participants preferred visual learning to verbal learning. Four out of 6 participants (67%) preferred sequential learning over global learning, while two participants were fairly balanced between those two preferences.

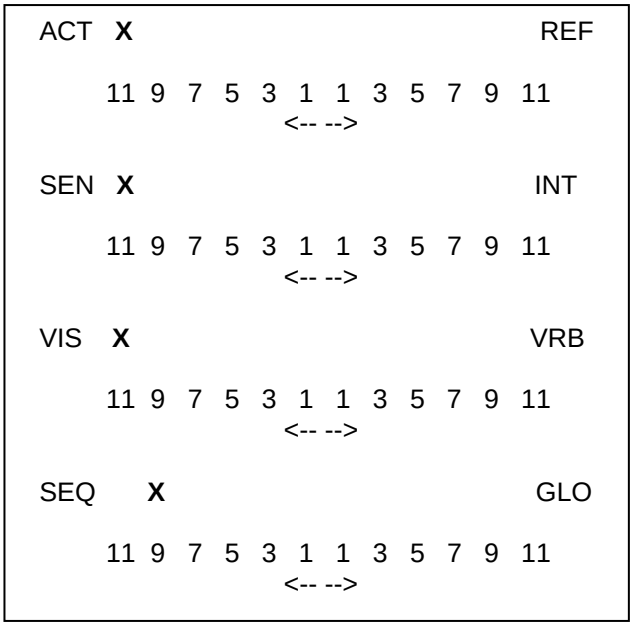


Figure 41. Rosa's ILS results.

Table 9

Summary of ILS for All Participants

Participant	Learning Style
Benita	Active, Sensing, Intuitive, Visual, Verbal, Sequential
Carmen	Active-Reflective, Sensing, Visual-Verbal, Sequential
Jasmin	Active, Sensing, Visual-Verbal, Sequential-Global
Martha	Active, Sensing, Visual-Verbal, Sequential
Natalia	Active, Sensing-Intuitive, Visual, Sequential-Global
Rosa	Active, Sensing, Visual, Sequential

Grasha Teaching Styles Survey

The Grasha Teaching Styles Survey contained 40 items and was administered online. The scores identified preferences for five teaching styles of expert, formal authority, personal model, facilitator, and delegator. The questions on the survey were scored on a 5-point frequency scale of *strongly disagree* (1), *moderately disagree* (2),

undecided (3), *moderately agree* (4), and *strongly agree* (5). The results indicated scores to be low, moderate, or high for each of the five teaching styles. The results of the Grasha Teaching Styles Survey for the instructors are shown in Table 10.

Table 10

Instructors' Grasha Teaching Styles Survey Results

Instructor	Expert	Formal Authority	Personal Model	Facilitator	Delegator
Antonio	3.0 (moderate)	3.25 (high)	3.25 (high)	3.0 (moderate)	2.5 (moderate)
Bethany	3.5 (high)	3.5 (high)	4.0 (high)	4.12 (high)	3.875 (high)

Antonio scored a 3.0 for the Expert teaching style. He moderately possessed knowledge and expertise that the participants needed and occasionally strived to maintain expert status. Antonio often looked for opportunities where he could demonstrate his knowledge and expertise and sometimes used his personal experience to validate his status as an expert. His goal was to make sure that he imparted to his participants with the same knowledge and skills that he possessed in order for them to do their jobs accurately.

Antonio scored a 3.25 for the formal authority teaching style, which was considered a high score that indicated his strong concern for using his leadership role as a facilitator to provide feedback to the participants and to present the course objectives, class rules, class agenda, and class structure. He scored a moderate 3.25 for the personal model and was careful to lead or teach by example. For Antonio, modeling his behaviors and skills for the participants was necessary to guide them to

on-the-job success. The participants would be able to hear and see him via direct observation and to perform in the same or very similar manner on the job.

For Antonio's facilitator teaching style, he scored a moderate 3.0 that indicated moderately strong feelings about the teacher-participant relationship. He occasionally demonstrated the facilitator role by guiding the participants toward self-discovery, self-reliance, and accountability. Antonio also encouraged and allowed participants to input ideas and suggestions and to decide on options and alternatives during class.

Finally, Antonio scored a moderate 2.5 for the delegator teaching style. He did not delegate many responsibilities to the participants, preferring to do several tasks on his own. He much preferred to impart his knowledge and skills on the participants rather than assign parts or whole tasks for them to complete. Antonio often did not regard his participants as independent learners ready to take on additional responsibilities and regarded them as needing his knowledge, skills, guidance, and supervision to do their jobs successfully.

Bethany's scores were higher than Antonio's for all teaching styles. She scored a moderate 3.5 for the expert style. She moderately possessed knowledge and expertise that the participants needed and occasionally strived to maintain her status as an expert. She often looked for opportunities to demonstrate her knowledge and expertise, sometimes using her personal experience to validate her status as an expert. Her goal was to make sure that she provided her participants with the same knowledge and skills she possessed in order for them to do their jobs accurately.

Bethany scored a high score of 3.5 for formal authority teaching style which indicated her strong concern for using her leadership role as a facilitator to provide

feedback to the participants and to present the course objectives, class rules, class agenda, and class structure. Bethany received a high rating of 4.0 for personal model. The high score indicated her willingness to very carefully lead or teach by example. For her, modeling her behaviors and skills for the participants was necessary to guide them to job success. The participants would be able to hear and see Bethany via direct observation and to perform in the same or very similar manner on the job.

For Bethany's facilitator teaching style, she scored a high 4.625. She felt very strongly about the teacher-participant relationship and usually demonstrated the facilitator role by guiding participants toward self-discovery, self-reliance, and accountability. Bethany also encouraged and allowed participants to input ideas and suggestions and to decide on options and alternatives during class. Finally, Bethany scored a high 3.875 for the delegator teaching style. She delegated many responsibilities to the participants, preferring to allow them to perform several tasks on their own. Bethany often regarded the participants as independent learners ready to take on additional responsibilities at their own pace.

Qualitative Results

Qualitative Analysis Procedures

The data were gathered through interviews and observations. The data were transcribed as needed and placed in a qualitative analysis program called NVivo, which allowed me to conduct a line by line data analysis. The data were placed into common themes, as previously mentioned, and further broken into sub-themes or categories. Seven common interrelated themes and 57 sub-themes emerged from the data. The specific steps I followed for data analysis were:

1. *Upload data.* I uploaded text data from the participant-observations and the interviews directly into the NVivo desktop software which was easy to utilize.
2. *Read data*. I read the data, line by line, to understand the information. I kept in mind the major and minor research questions as I read the documents. I produced notes regarding common themes that arose from the data.
3. *Develop nodes based on themes*. Once I read all documents, I created data nodes. The nodes addressed the major themes found in the research. The data nodes became drop boxes for coded data.
4. *Code data.* I went line by line within the data with a new awareness of the created nodes. I highlighted any text that represented a certain theme and assigned it to a node.
5. *Sub-themes and categories.* Depending on the complexity of the data, sub-themes and categories were needed. I examined each node, dissected it, and placed text segments into new sub-themes and categories as appropriate.
6. *Individual codes to sub-themes to themes.* Finally, I compared the data by expressing the ratio of the code to the sub-theme as well as to the theme and all of the codes.

A total of 92 codes, resulting in 56 categories, were found from the participants and data (Appendix G). For the instructors, 64 codes, resulting in 32 categories, were found (Appendix H). The themes for the participants of the study were:

1. Preferred Classroom Environment
2. Least Preferred Classroom Environment
3. Preferred Learning Style

4. Least Preferred Learning Style
5. Motivation for Learning
6. Preferred Teaching Style
7. Least Preferred Teaching Style

The themes for the instructors of the study were:

1. Fostering Participant Learning Optimization
2. Inhibiting Participant Learning Optimization
3. Preferred Teaching Style
4. Least Preferred Teaching Style
5. Use of Learning Activities

Descriptions of the Themes

The first themes in this analysis related to the participants. Preferred Classroom Environment addressed categories that described the aspects of the learning environment participants most enjoyed and felt contributed positively to their learning. The opposing theme was the Least Preferred Classroom Environment that addressed categories that described the aspects of the learning environment participants least enjoyed and felt contributed negatively to their learning.

Preferred Learning Style addressed the categories which described the learning styles participants felt worked well for them. Conversely, Least Preferred Learning Style addressed categories which described the learning styles participants felt worked least well for them. Motivation for Learning covered the reasons why the participant was in the training course as well as why the participant wanted to learn. Preferred Teaching Style addressed the categories which described the teaching style the participants most

enjoyed or felt positively contributed to their learning. Least Preferred Teaching Style addressed the categories which described the teaching style the participants least enjoyed or felt was negatively contributing to their learning.

For instructors, the second set of themes were found as described here. Fostering Participant Learning Optimization covered the aspects of the class and teaching methods the instructors felt most optimized the participant learning. Conversely, Inhibiting Participant Learning Optimization addressed aspects of the class and teaching methods the instructors felt least optimized participant learning. Preferred Teaching Style depicted the teaching styles the instructors most preferred using. Least Preferred Teaching Style addressed what the instructors least enjoyed, which was lecturing. Use during the training courses to reinforce learning.

Participant Themes

The Preferred Classroom Environment theme described the categories concerned with the classroom environment and what aspects of the classroom environment the participants responded as contributing positively to their learning. The most significant code was *Personal Workspace* (19% of the theme) as expressed by multiple participants as a much preferred environment (Figure 42). Participants did not want to work in close proximity to each other and preferred to have individual tables or desks.

When asked about what she would change in the classroom environment, Carmen responded:

Carmen: Really just a space to yourself.

Interviewer: Mm-hmm. All right.

Carmen: But other than that I mean it was okay.

Interviewer: Okay. Okay. So space to yourself, just your own work space? Have your own . . . ?

Carmen: Yes.

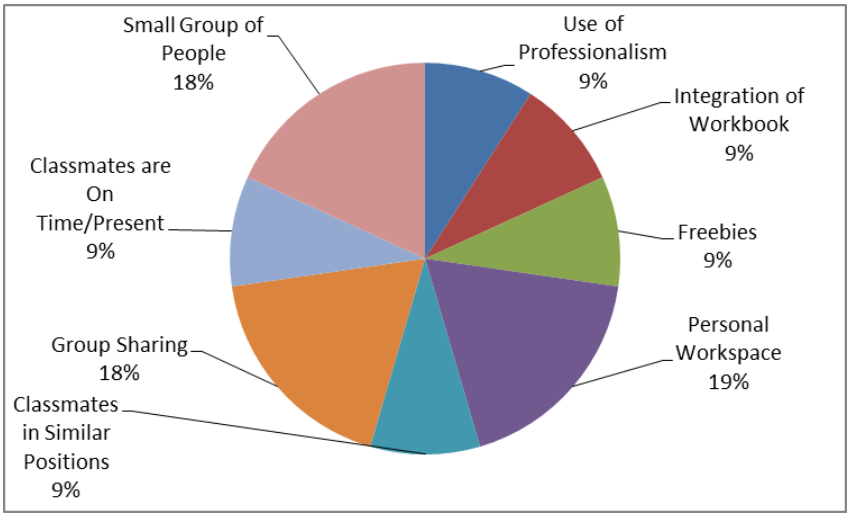


Figure 42. Pie chart of preferred classroom environment theme's categories.

When asked about changes to the workspace, Natalia echoed Carmen's concern, "I think everything was good, but if we could have a little more elbow space, it would be a little bit better."

Small Groups and *Group Sharing* were the next largest contributing codes. Participants expressed interest in working in small groups:

Martha: Mm. (pause) Let us see. (laughter) I don't know. Once again, I have maybe . . . I know that the class is pretty big.

Interviewer: Mm-hmm.

Martha: Maybe if it was . . . like have enough people but not as many, you know?

Interviewer: Mm-hmm.

Martha: I feel like that might have . . . we could have got closer.

Group Sharing was recalled as a productive part of the course and contributed positively to the learning environment. Again, Martha suggested that the group diversity was beneficial to her learning and expressed this code as follows:

> You're not alone. You have a whole bunch of people there and it's the same position that you are . . . that understand and feel exactly the way you are and you're not afraid to ask questions and not, you know, if you don't understand you're not afraid to say anything. You're not alone.

Natalia said, "Well, I'm comfortable with a classroom scenario with a group, there's a lot of people . . . contributing at the same time. I think that's the best way to learn."

Least Preferred Classroom Environment characteristics were quite numerous. The largest sector of this theme was *Computer Issues/Training Software Problem* and contained 33% of the codes for this group (Figure 43). When asked what physical things she would change about class, Martha responded, "The computers . . . were funny. We had so many troubles with the computers. Um, I also feel like if it wasn't for the instructor that we had, I don't think I would have been able to learn."

Natalia reiterated the concerns about the training computers:

> We had a lot of technical issues. . . like we weren't able to act with like different programs at different times. Or some people's computers wouldn't work at all . . . Passwords. That type of thing. But other than that everything else was fine.

Technological problems were addressed in the observation notes. For example, one notation reported:

Rosa had a blank screen, and after a few seconds, the instructor told her that they had some technical issues with that computer in the previous class and that she should move to the next computer. She did, and she was able to get to the correct screen after a few minutes.

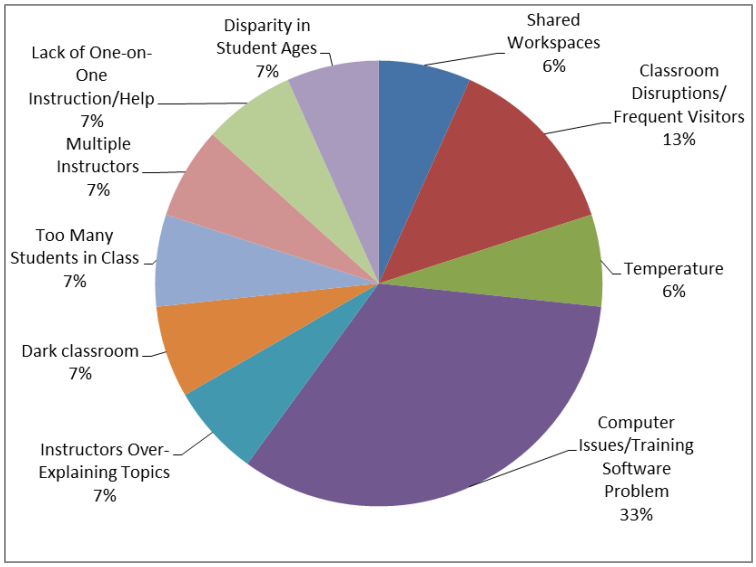


Figure 43. Pie chart for least preferred classroom environment theme's categories.

The respondents' Preferred Learning Styles included a wide variety of learning methodologies (Figure 44). The largest contributors were the codes of *Experiential, Question Asking,* and *Demonstration.* When asked about Preferred Learning Styles, Benita discussed her instructor's use of demonstration, "I'm a visual person so the way Antonio would demonstrate things using one object over here and, you know. That helped me a lot." Natalia also expressed her desire to have things demonstrated, as opposed to reading about them, "I think I, like I, um, visually. Like actually seeing how things are put together instead of just somebody reading to me or me reading myself."

Respondents explained the value of asking questions and how it contributed to learning. Jasmin described her Preferred Learning Style as including both question asking and demonstration. She said, “I want them to teach it, show it to us, then answer the questions, anything there might be, but I don’t like to just go back through it.”

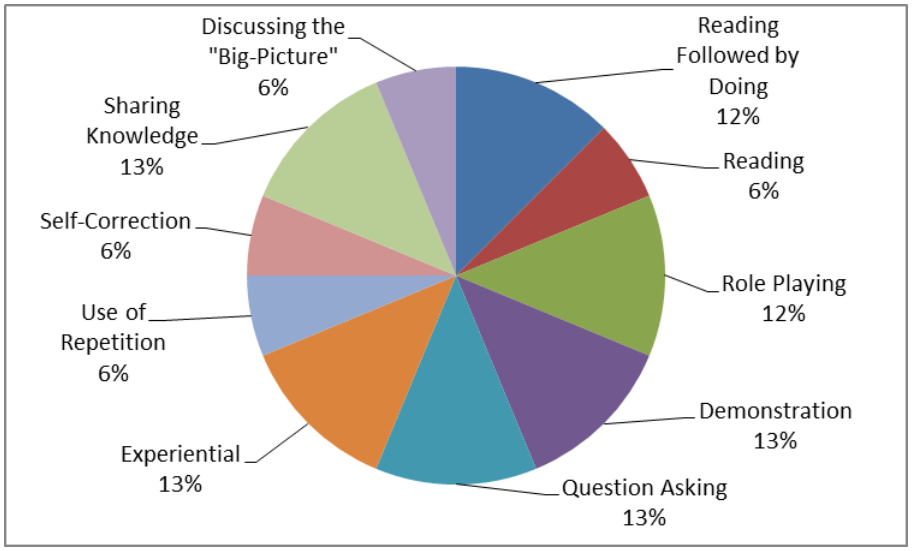


Figure 44. Pie chart for preferred learning styles.

Respondents were vocal about the learning styles they did not enjoy or find beneficial to their learning (Figure 45). Although some respondents did learn to appreciate role-plays, they did not prefer them as a method of learning as indicated in the Least Preferred Learning Style theme. Rosa said that besides disliking the reading, she hoped that she would not have to do any role plays. She expressed, “I know they’re needed to help learn the material better, like in a real world situation, but I just don’t like getting up in front of people like I’m on stage. I get embarrassed.” Carmen did not like the role-plays but did acknowledge the importance they played as a teaching method. “They’re okay. I know I’m shy, but I’m okay with the role plays if I have to do them.”

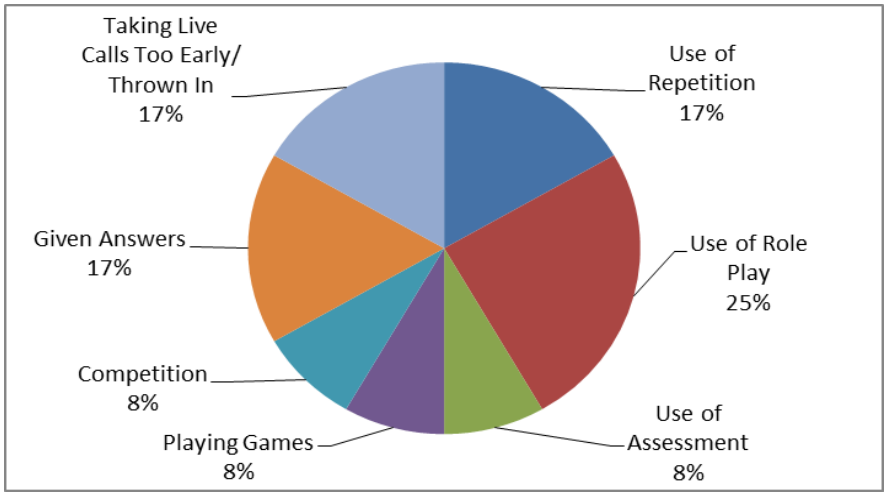


Figure 45. Pie chart for least preferred learning styles.

Natalia expressed that she was quite uncomfortable regarding the role-plays in the class during the following exchange:

Natalia: So then I would be in the front and then the instructor would be the customer, and I'd be the rep, and we'd just do roles like that.

Interviewer: So you don't like role plays.

Natalia: Not on the spot (laughter)

Interviewer: Not on the spot or not just you and the instructor? Okay. So that really made you feel uncomfortable?

Natalia: Yeah.

For the Motivation for Learning theme, motivating factors for learning and taking the training course included practical needs for the new job as well as an innate desire to learn and be successful (Figure 46). Martha, when asked about her motivations for taking the class, responded excitedly that she enjoyed learning: "Like different areas. Knowledge is like . . . I love knowing things, you know? Yeah. Um, I feel like it's

awesome, because I learned things that I never knew before. Like in that financing, you were just like, 'Whoa!'" Martha also explained how students need to want to learn:

> You had to pay attention, and you had to want to be here. If you don't want to be here, then no one really learns. But you got . . . a lot to learn because you don't want to be here in the first place. So you don't open your mind, you know, to learn what the instructor has to say.

Figure 46. Pie chart for codes for motivation for learning.

Respondents were asked what aspects of their instructors they liked. The largest response for the Preferred Teaching Style theme was that the participants wanted the instructor to be nice, funny, and entertaining (Figure 47). When asked about her instructor, Martha responded, "Because our instructor . . . I feel like that's how every instructor should be. He was funny . . . but he was on point with what . . . how he needed to take it."

Natalia explained how she believed the instructor successfully shared ideas in an entertaining way: "Well, actually one thing that . . . helped a lot with . . . I like how he

exudes ideas, like he keeps us, not entertained but, in a way, entertained . . . that focuses . . . on the material." Again, Natalia mentioned the importance of the instructor being funny and entertaining as part of a successful learning environment. "I think the training we've had for the last 4 weeks has peaked. It's been excellent for me . . . because he just, you know, he not only explains it, he'll put it in a joking way."

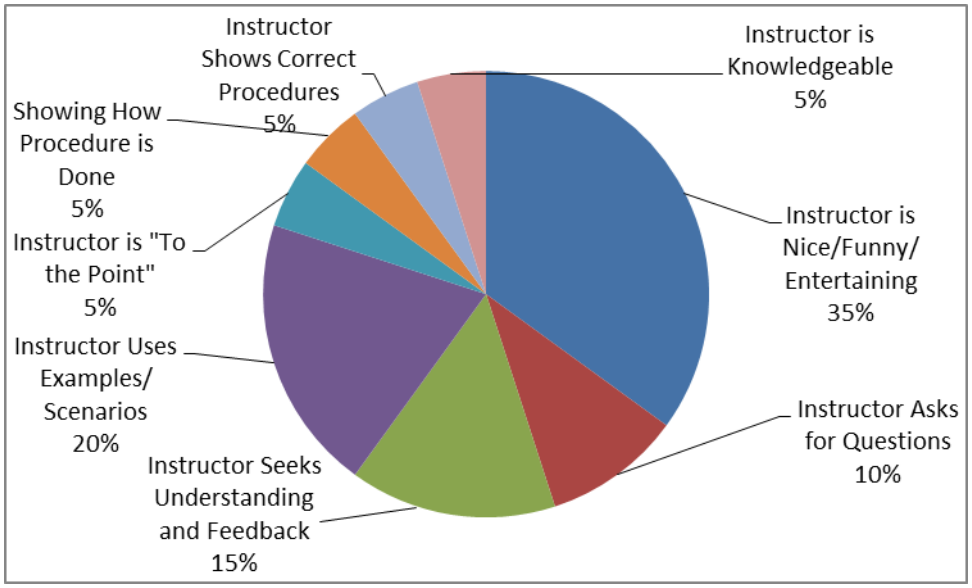


Figure 47. Pie chart of codes for preferred teaching styles.

The Least Preferred Teaching Styles theme was composed of diverse responses (Figure 48). As discussed above, the *Use of Role Plays* was not a most favored teaching technique, but the participants were also aware that role plays helped them learn. *Being Given or Fed Answers* was the next least preferred method of teaching. Several respondents expressed concern about instructors giving the answers to them. When asked about her teaching methods preference, respondent Natalia said, "Uh, I like when instructors interact with the students. Not just sit there and basically tell them what they need to know, but ask for feedback . . . and see if they have questions or

anything." Martha expressed how previous instructors had simply given her the answers, and this behavior did not help her learn new material:

> Like he knew everything, but he also was like, "Hey, I know you know, but you need to check. Make sure you know. Make sure you look it up." Because I also noticed whenever we did . . . when we did like . . . when we were doing hands on. We had people help us, but people were giving us the answers.

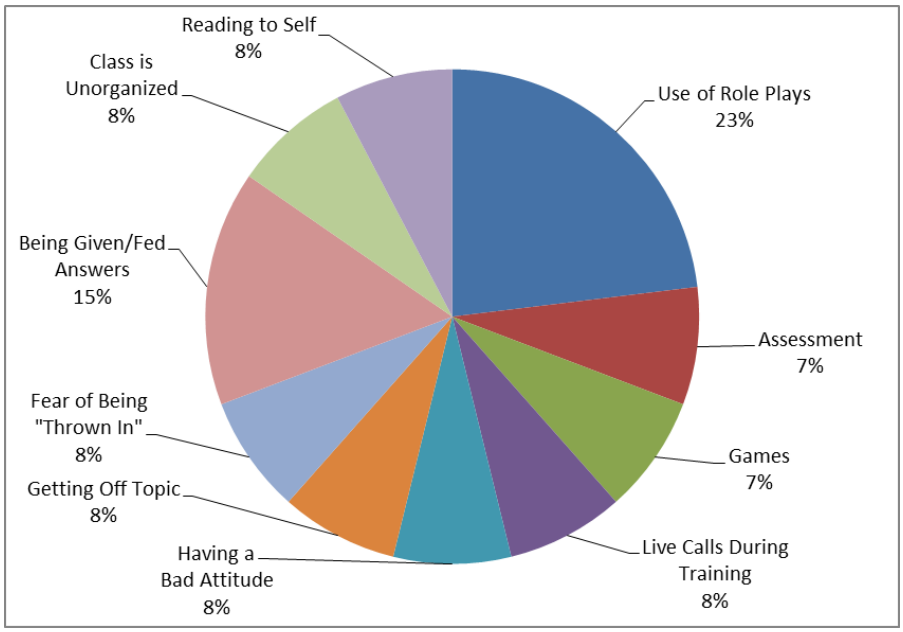


Figure 48. Pie chart of codes for least preferred teaching styles.

Instructor Themes

Fostering Participant Learning Optimization consisted of several categories with the largest being *Ask Questions to Learners* (Figure 49). Participants seemed to learn better when the instructor asked them questions and often required the participants to provide answers. In several cases, this occurred as part of a team activity, and the correct answer provided the team with points. Instructor Antonio used question-asking as a method of instruction. Antonio explained:

So, I like to pose questions and lead those questions, and then I'll let them kind of figure it out, right? I'll solicit questions from them and then I'll . . . and it's about involving everybody, right? If they don't ask questions, then I'll ask questions to them. If it's an inappropriate question I won't say it's inappropriate, but I'd rather say, "What you probably meant to say was X, Y, Z. Would that be correct?"

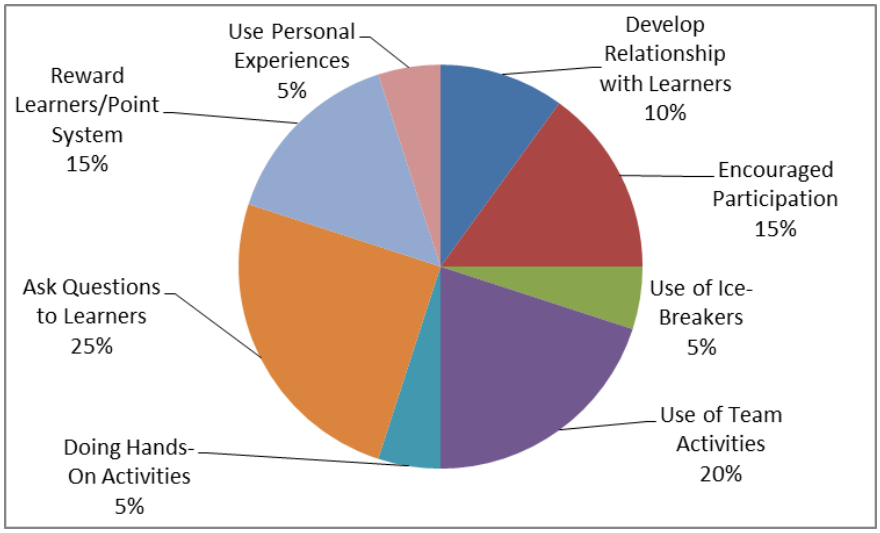


Figure 49. Pie chart of codes for fostering participant learning optimization.

Field note observations suggested that using question-asking techniques made the participants more alert, and they appeared to be learning. The following represents a field notation about question-asking:

Rather than ask the participants if they had any questions, he asked four questions related to the topic. The participants seemed to be more astute and provided eye contact with this exercise. Foregoing formalities, various participants simultaneously provided the answers to the questions immediately following each question. After each correct answer, they seemed to want

another question. The instructor acknowledged how glad he was that they understood the content and then he asked if they had any more questions.

Factors which contributed to Inhibiting Participant Learning Optimization were distributed among the codes of *Lack of Examples During Instruction*, *Being Asked to Read, Technology/Computer Issues, Individual Exercise,* and *Large Class Sizes* (Figure 50). These codes suggested that the participants preferred to work together in smaller classes. At one point during observations, an individual exercise was taking place. The participants instead began to work together in pairs or small groups. The observation notes included the following:

> Although it was intended to be an individual exercise, several participants began to work in pairs with the participant sitting to his/her left or right. They whispered to each other and seemed to ask each other questions related to the exercise. They looked like they were afraid to get caught working together, often looking up at the instructor for approval.

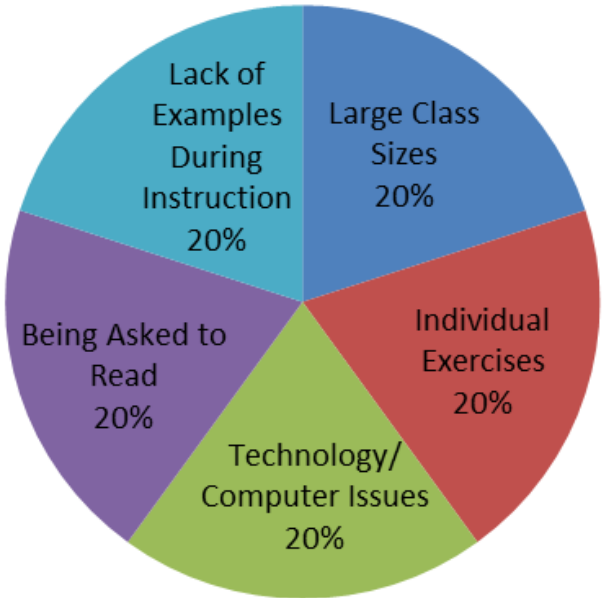


Figure 50. Pie chart of codes for inhibiting participant learning optimization.

The use of examples had been a common preference expressed by most of the participants. Within the observation notes, several of the participants discussed their preferences for demonstrations and examples to their instructor. One notation recorded the following observation:

> Before starting, however, he told the class that he would email the presenter to see if he could come back later in the day or the next day to answer their questions. Benita immediately chimed in and said that the presenter should give them examples of what he was talking about, because it was too hard to understand without hearing sample calls to follow the guidelines. Martha, Natalia, and Rosa agreed and so did the instructor.

Instructor's Preferred Teaching Style was a very diverse theme (Figure 51). Both instructors named several different teaching styles or methods that they used in the course. The largest category with 20% of the codes is the *Use of Activity or Activities*. Instructor Antonio expressed the following during this exchange in his interview:

> Interviewer: Awesome. And then what about . . . and I mentioned this also but the student participation, the mode of student participation, do you facilitate by the presentation? Meaning, do you like students to be active, where they're talking, they're moving, they're giving their ideas, or do you prefer them to just sit back and listen to you?
>
> Antonio: No.
>
> Interviewer: Is it a mix?

Antonio: Yeah. I think it's a mix, but the majority of it is really them being active.

When asked about her teaching preference, instructor Bethany said the following:

Oh goodness. I think that I only have their attention for a short period of time, so I find that when the learners are smiling, when they're engaged, when they're interacting they're still learning, and I think that I have their attention for a longer period of time.

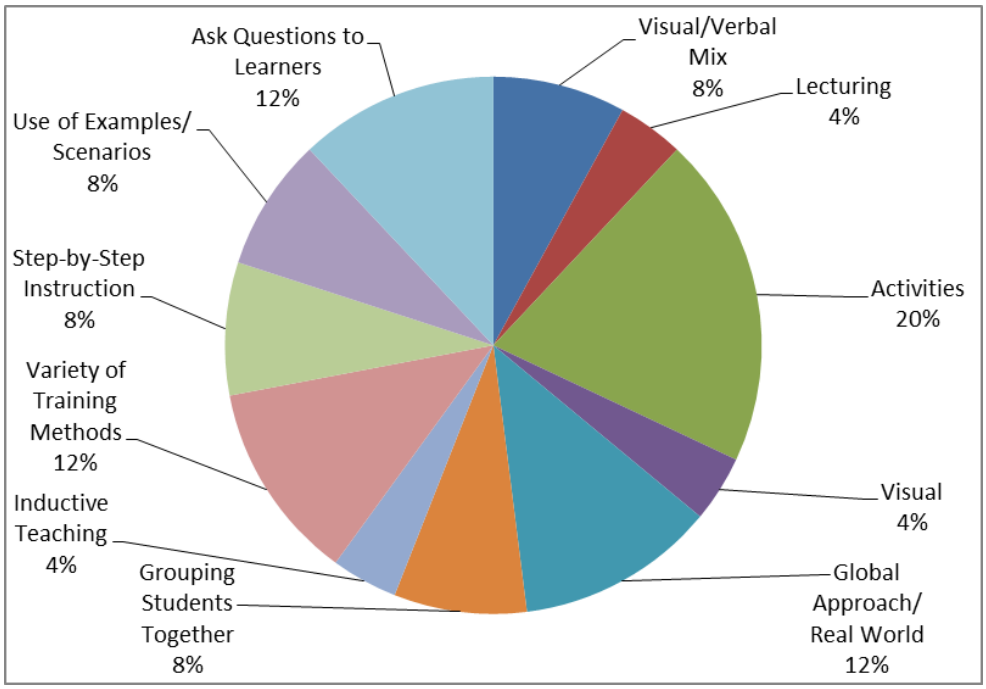


Figure 51. Pie chart of preferred teaching styles.

Bethany also saw the value of keeping the participants actively engaged. Instructor Bethany reiterated the use of *Activity* in the classroom, but indicated that she used a mixed approach that utilized multiple methods:

You know, depending on what portion of the material. There are portions when them being active and engaged is required. And then there's other times when I

may be teaching them a step-by-step process and . . . I'm sorry, go through a workbook then that, when I'm doing things like that then I need them to be a little bit more passive, and actually, like, listen so they can see the steps first and then go through it themselves. So, I would say it's really a blend of both depending on where I am in the process.

The Least Preferred Teaching Style was lecturing. The only style that the instructors mentioned during their interviews as being their least favorite was the use of lectures. Bethany described herself as not a lecturer and her preference to utilize other methods in the following exchange:

Interviewer: Some people like to use humor. Some people like to . . . you talked about engagement, some people like to use games or refreshers. Some people like to do animation or theatrics in the classroom.

Bethany: Oh, I do some of all that.

Interviewer: Some people are lecturers or people are . . .

Bethany: I'm not a lecturer.

Interviewer: Okay.

The Use of Learning Activities theme was comprised of several active teaching techniques (Figure 52). Both instructors reported utilizing learning activities in some fashion or another. The instructors' most used learning activity was the *Teach-Back* technique. When asked about teaching methods, instructor Antonio said:

So I mean that really varies, but I'll give an example. It could be the teach-back where you just separate them into teams . . . and that gets them more involved and gets them off their seat. Teach-backs are good as long as they're controlled,

because if it's too long or too complicated, then you got to come back and clean it up, so that can be counterproductive in a way.

Bethany: So let me start by saying that. I don't lecture.

Bethany also utilized the Teach-Back technique and discussed the following:

One of the things that I've learned over my career that I've loved is, you know, when we start a new hire class, you separate them into groups. . . . We use that to really get that participation rate up, and it works and that's just one of the things that we do, and then we do teach-backs, you know, where we have them on some of the topics that's not as difficult. It really doesn't require a facilitator to really, I guess, facilitate that, just kind of giving them the opportunity to be more involved in their own learning. So doing the teach-back has them present the topic to the class and then teaching what they know. And then, you know, giving them all the . . . so they can do that effectively but . . . so things like that are things that I like to do.

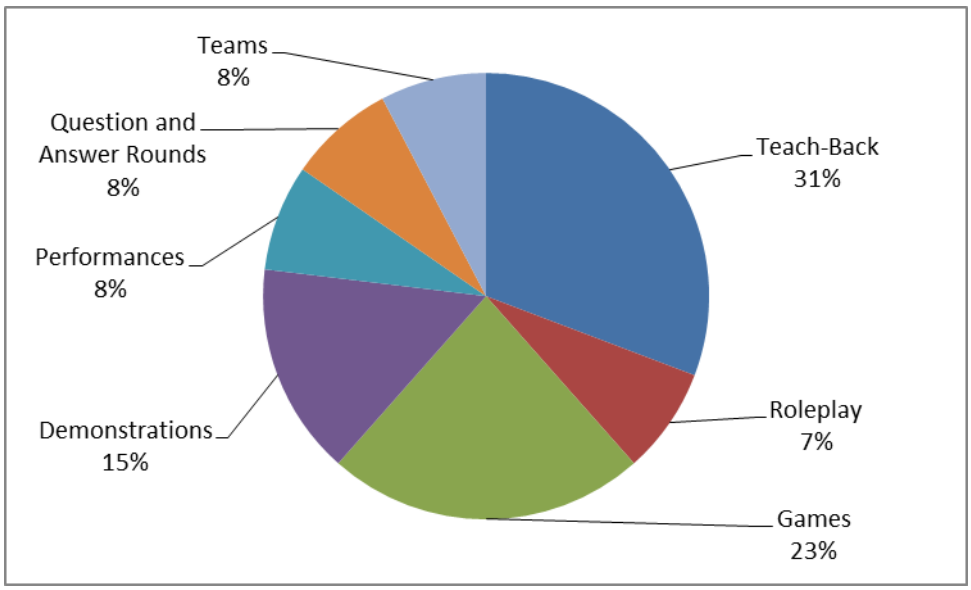


Figure 52. Pie chart for use of learning activities.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This research study examined the participants' perceptions, motivations, and performance during and after attending a 6-week corporate training program. The purpose of this research was to determine (a) how instructors' teaching styles supported participants' learning styles and their perceptions of classroom environment and motivation to learning and (b) how the relationships between the instructors and participants impacted participant performance during the training program. The six research questions, noting that the first question was the study's major research question, that guided this study were the following:

1. What do participants consider as an optimal learning experience?
2. What do participants indicate for their preferred learning style?
3. What do participants indicate for their preferred classroom environment?
4. What do participants indicate for their motivation to learn?
5. What do instructors indicate for their preferred teaching style?
6. What strategies do instructors utilize that foster or inhibit the participants' learning optimization?

This ethnographically informed research case study was conducted because of the need for corporate learning organizations to acknowledge the diversity of learning styles that exist in the classroom. I used participant-observation and semi-structured, face-to-face interviews with six classroom participants and two classroom instructors at a corporate learning organization. Additionally, I used the results of two Level 1 and four Level 2 evaluations, the Index of Learning Styles (ILS), and the Grasha Teaching

Styles Survey. This data provided evidence to help instructional designers and trainers to design and facilitate training programs and courses that cater to the various learning needs and challenges of each classroom participant (Cegielski et al., 2011). By doing so, learning organizations ensured everyone has the opportunity to learn effectively (Honey, 2005). Additionally, learning organizations benefit by having appropriately trained employees. This chapter provides interpretations of the findings in relation to the research questions, a discussion, and recommendations for corporate learning organizations, including leaders, training personnel, and classroom participants who need and desire to learn at an optimal level. Finally, suggestions for future research are presented.

Findings and Interpretations

Optimal Learning Experience

The first research question allowed for discovering what participants considered an optimal learning experience. The combination of four of the seven major themes from the participants, including their preferred learning environment, their preferred learning style, their motivation to learn, and their preferred teaching style created the optimal learning experience for each participant. Additionally, the results of the Level 1 evaluations regarding the participants' perceptions of their instructors, the course material, and the course experience were used collaboratively with the four themes. The Level 2 evaluations were used to validate or refute the findings of the observations, interviews, Level 1 evaluations, and the ILS.

Overall, the participants desired to learn in an environment in which they could work in groups and have their own individual work space during lectures or non-activity

moments. They desired to do learn with plenty of direct engagement and interaction and with supplemental resources and visual aids for stimulating and reinforcing learning. The team exercises, review games, and discussions were highly favored by the participants over working independently or listening to lectures. The participants preferred to have fully functioning equipment so they could rely on themselves to research answers and complete assignments. Finally, they desired to have an instructor with a facilitator teaching style. (These themes and results are discussed more for subsequent research questions.)

The findings from the Level 2 evaluation indicated that for most participants, their performance aligned with their personal perceptions of the classroom experience and with my direct observation of their behaviors and comments in class. Most participants who scored high on the weekly assessments had a positive reaction to the instructor's teaching style, the course material, and the course experience. Jasmin and Rosa were the only exceptions. Jasmin had the highest grades on the weekly assessments but expressed mixed feelings about the class along with a negative perception of the course experience. On the contrary, Rosa had the lowest grade average on the weekly assessments but expressed positive feelings about the class. This could be due to her positive feelings about the instructor. Antonio spent a lot of time with Rosa to help her understand the content. He also offered lots of encouraging words and support.

Preferred Learning Style

The second research question addressed the participants' preferred learning style. The participant-observations, interviews, and the analysis of the Level 1 evaluations and the ILS dimensions provided the data for answering the question. Most

participants indicated a preference for active learning. Only one participant attained balance between active learning and reflective learning. The participants preferred to have hands-on activities, demonstrations, and group activities that involve sharing knowledge (Santo, 2006). I noticed that their behaviors became positive during direct engagement activities, such as review games and group discussions, and they became indifferent or negative during periods of non-direct engagement activities, such as lectures.

Additionally, most participants indicated a preference for sensing learning. Two participants were balanced between sensing learning and intuitive learning. Overall, the participants preferred to be practical in their learning and to receive factual information more than theoretical information. According to the *Reading Followed by Doing* category within the Preferred Learning Style theme, participants preferred to practice and apply the lessons they learned. They did not prefer to be creative or explore various options for solutions (Felder & Spurlin, 2005).

Four out of six participants were balanced between visual learning and verbal learning. The other two participants preferred visual learning to verbal learning. Most participants appreciated the mixed or blended course curriculum and facilitation that included supplemental visual resources, such as PowerPoint presentations, job aids, demonstrations, and the participant guide, as well as occasional verbal stimulation for learning, such as reading and listening (Santo, 2006). I noted that many participants took notes during lectures and activities in their participant guides and asked questions throughout the training period.

Finally, four out of six participants preferred sequential learning to global learning, while two participants were balanced between the two styles. The participants preferred to learn concepts in step-by-step, logical sequences, rather than by attempting to put pieces of information together to resolve the problems (Santo, 2005). A majority of the training topics involved numerous software systems, which required step-by-step progression without allowing for deviation and only allowing limited options for completion. The participants learned policies and procedures thoroughly, and these were written in step-by-step, logical sequences.

Preferred Classroom Environment

The third research question focused on the participants' preferred classroom environment. Participants preferred to have their own individual workspaces or desks rather than to sit side by side at the long tables. This consideration aligns with McNulty and Schmidt's (2005) suggestion that seating arrangements do affect the learning process. Participants enjoyed working with each other and being able to move around during group activities but desired to have their own workspaces to return to after group activities. I noted that while sitting close in proximity to each other, the participants often engaged in conversations with each other during lectures, when completing individual work, and during the assessment. Sufficient spacing, such as having individual desks that could be separated at the instructor's discretion, would have made a positive difference during the training class (Bixby, 2012).

The participants preferred small class sizes in order to participate more often and get their questions addressed. This particular new hire training class was much smaller than previous classes and did enable participants to ask as many questions as needed

without feeling as if they did not have enough time to learn. They were able to complete each training topic, including the lecture and associated activities, in a timely manner. Overall, the participants felt they had sufficient time to practice what they learned. They seemed concerned that they needed to practice during the training period as much as they could to minimize the potential for mistakes once they entered production.

The participants knew that once the training course ended and their quality and overall performance would be monitored and tracked. Mistakes, depending on quantity and severity, could cost them their jobs. They felt that they could learn better and perfect their skills with more time allotted to practice. This finding directly supports Sims' (2004) assertion that effective time management in the learning environment is critical for effective transfer of training and for participants to have positive perceptions about the learning experience.

Motivation to Learn

The fourth research question focused on the motivating factors that aided the participants' learning. The participants expressed how thankful they were to have a job, which was a key motivator to their learning. They were especially grateful to have a job with benefits and perks, something that most of them had never experienced. With such company benefits as health insurance and life insurance for themselves and for their families, the participants felt a sense of accomplishment and an obligation to learn and retain as much information as necessary to ultimately do a good job after training. They wanted to be assertive and take ownership of their learning by taking notes during class, asking questions, and making suggestions that would help improve their learning. This expectation aligns with Schramm's (2011) suggestion that organizations expect

employees to take control with independent learning and with Jeffrey et al.'s (2010) supposition that self-directed learners must have some level of control over the learning process.

Another major motivating factor and company benefit that was a welcome surprise to the participants was tuition reimbursement. Several participants expressed an interest in going to college for the first time or in returning to college to pursue a degree. College was something about which many of them had only dreamed. If these new employees maintained their employment for six months, met certain performance requirements, and majored in a discipline where their knowledge could benefit the company, then the company would reimburse them for the costs of their college tuition and other related fees. This benefit would be a financial blessing to them because their salaries alone would not be enough to cover their school expenses. Obtaining a degree, along with continuing to acquire new knowledge and skills, would help them advance more quickly into leadership roles at work. This finding regarding employability has support from Rock and Garavan (2006).

Preferred Teaching Style

The fifth research question centered on the preferences for the ways the participants wanted to be taught. The participants most preferred to have a nice, funny, and entertaining instructor. They considered Antonio to be a nice and courteous person and to exhibit the level of humor or entertainment they preferred. Antonio, however, allowed the participants to express these behaviors during class as they happened naturally. During review games, for instance, participants jokingly taunted and teased each other to promote friendly competition. At times, they laughed at their own failures

and during various opportunities for personal disclosures. These types of interactions increased daily as they continued to get to know each other better.

The participants appreciated Antonio's use of humor and entertainment to deliver the training content in a way that they understood. His facilitation style was very personable and caring, and he adjusted his delivery of the content depending on the topic and the participants' reactions to it. According to Martha and Natalia, Antonio knew how to make the topics fun and interesting, which is exactly what they expected him to do.

The participants felt a little differently about Bethany. She did not exhibit the same facilitation characteristics as Antonio; however, she effectively delivered the content so they could understand it. She effectively used examples and scenarios during her lectures and explanations of activities that helped to reinforce their learning. Her style was just different and not as appealing as Antonio's use of examples and scenarios.

Bethany realized that she did not make as personal a connection to the participants as she would have preferred and attributed it to her limited exposure to them, giving validation to Richardson et al.'s (1997) assertion about the importance of instructors recognizing the teaching style preferences of their participants for a positive classroom experience. Had Bethany facilitated a few more topics and spent more time interacting with the participants, their reaction to her teaching style may have been more positive. On the contrary, when Bethany did not facilitate, she did not come into the classroom, at least not during any of the participant-observation periods.

Surprisingly, Bethany displayed the facilitator teaching style more than Antonio, yet Antonio exhibited more of an expert teaching style. Both of these styles were what the participants wanted and expected from their instructors (Grasha, 1996). Bethany had limited exposure to the participants which coupled with her lack of expert teaching style characteristics, representing her lowest score on the Grasha Teaching Style survey. Bethany's experience validated Leong's (2005) recommendation to instructors to get to know their participants' interests, concerns, and motivation for learning in order to better stimulate learning and promote a positive learning environment.

Strategies for Learning Optimization

The sixth research question addressed what strategies the instructors used or did not use that helped or inhibited the creation of a positive learning experience. The participants greatly appreciated opportunities to ask questions and the time and thoughtfulness the instructors took to answer those questions. The instructors used the question and answer technique with each of the topics. This method of instruction allowed the participants to explore the topics through group discussions, writing exercises, and individual verbal responses. This method provided the instructors with a level of measurement to understand the participants' acquired new knowledge and readiness for the next topic.

The participants enjoyed the group activities much more than they did the individual work assignments. The instructors were well trained to make the necessary adjustments to the curriculum design and training agenda to accommodate the participants' needs and desires. This flexibility supported Bedi's (2004) claim that a learning mismatch will occur if instructors do not shift their teaching strategies to adjust

to their participants' needs. Whenever the instructors asked the participants to work in pairs or groups, the participants showed excitement, especially for the review games which promoted friendly competition. The participants liked the synergy generated when they shared personal experiences and bounced ideas off of each other. This is a key component to Adult Learning Theory (Kelly, 2006). During the group discussions and review games, the participants often showed spirited behavior and emotion, causing the instructor to intervene to decrease their excitement levels.

Recommendations

Encourage More Interaction

First, interaction among the participants should have been encouraged and fostered during the early part of the training course. Although participants felt comfortable with each other toward the end of the course, having them establish tighter personal and working relationships with their colleagues would have allowed them to open up and disclose more information to each other and their instructor throughout the course rather than near the end of the course.

During the first day of new hire training, the concentration was on establishing classroom rules and order and the expectations for learning rather than on allowing the participants to get to know each other and those whom they would work for and with while acquainting themselves with their physical surroundings. The participants took a tour of the building's two floors to get an idea of where certain departments were situated. The instructor guiding them along the aisles and pointed to and announced each department as they passed it. On a couple of occasions, the manager or a supervisor from a department greeted the participants in the aisles. The guided tour

also included stops at the cafeteria, break rooms, conference rooms, and restrooms. Had the tour included a more thorough insight into the departments, perhaps a short visit with a department leader or representative, a demonstration of work flow, and an overview of the department onsite, the participants might have acquired a better understanding of how and why processes existed.

Even if an abbreviated tour had occurred first, it should have been followed up by an expanded tour. With a majority of the participants being visual and sequential learners, a broader, more elaborate tour could have both appeased the class and provided a deeper understanding of the training content. Further, taking the time to explain the layout of the training classroom, the equipment that would be used, and why furniture and fixtures were placed in their particular configurations, rather than reviewing the rules of conduct would have reduced their apprehension and discomfort earlier in the training program. Once the participants could gain comfort with the learning environment, they could feel more at ease about their classmates and instructors and could share more freely during class and group activities. This finding is supported by Sims (2004) who argued an environment is safe when it is open and values others' opinions and ideas.

The second point about encouraging interaction involves the need for the co-instructor to have been more involved and engaged with the participants outside of her designated facilitation time. The co-instructor expressed that she did not feel that she was as connected to the participants as she should have been. In essence, the class regarded Bethany in a similar manner as they regarded the supervisors that periodically visited the room to observe them. They did not feel as comfortable with Bethany as

they did with Antonio. Although they responded to her questions and participated in each of the activities that she facilitated, the participants did not interact with her beyond those encounters. In situations with classes that have a lead instructor who facilitates the majority of the class time and a co-instructor who facilitates some of the class time along with supporting the lead instructor in other ways, it is just as important for the co-instructor to be engaged with the participants throughout the length of training period as it is for the lead instructor. The lead instructor and the co-instructor should be regarded as a team with shared goals and accountability for success for the entire class. Had Bethany spent more interpersonal time with the participants, their perceptions of her might have been more positive.

Finally, the supervisors who frequented the training room should have interacted with the participants in a non-offensive way. The supervisors appeared in the room with expressions more like soldiers on guard looking for opportunities to make judgments based on only these observations alone. When they entered the room, they were silent, impersonal, and disengaged. Their only motive seemed to be to make mental notes about the participants' behaviors. There is nothing wrong with supervisors wanting to check up on their soon to be team members; however, if one of the goals of training is to make the participants' feel comfortable and safe, then the supervisors need to present themselves differently during their classroom visits. Rather than standing by silently, the supervisors could join the participants in their environment, participate in discussions and group activities, and encourage the participants. The supervisor's role needs to be clearly understood prior to the training class, and the dates and times of the supervisors' visits need to be scheduled ahead of time. Such scheduling could help the

instructor stay on track; be useful for reinforcing learning reinforcements; and promote a safe, warm, and comfortable environment for the participants. Additionally, it might jumpstart a positive working relationship between the participants and their supervisors before the participants enter production.

Make Necessary Adjustments

Instructor Antonio was skilled enough to recognize the need to adjust his delivery style during the training period. For instance, whenever the majority of the participants seemed disconnected or disengaged with a lesson, Antonio stopped lecturing and facilitated a stimulating activity, such as a discussion or review game, or he gave the class a short stretch break. Making immediate changes to meet the needs of the participants is an integral instructor role (Weinstein, 2000).

However, just as it was important to make necessary adjustments, an adjustment to the learning environment could have facilitated the learning process (Sims, 2004). Jasmin's demeanor in class often brought the overall mood of the class down. She did not prefer to learn in the way the class was designed. To show her displeasure, Jasmin became disengaged and non-responsive or negative at times.

Early intervention for Jasmin, for example, may have helped her see the benefit and need for going through multiple steps and following the participant guide to ensure that quality standards were being followed. Helping her see the bigger picture behind the requirements of federal regulations and internal quality assurance might have changed her perceptions about "learning the computer stuff" and "the over teaching of policies and procedures." Obviously, Jasmin was a quick learner and retained the information provided to her as her high assessment scores proved. She might not have

needed as detailed a review of the content as the other participants. An adjustment for her might have been offering the curriculum with less structure and fewer details to cater to her specific learning needs.

Conversely, a necessary adjustment for Rosa could have been using curriculum with in-depth details, structure, and perhaps, repetition to allow her to practice as much as she needed to increase her skills and retention of the material. Campbell (1991) warned that instructors often resort to using their own learning styles instead of attempting to teach to the learning styles of their participants. However, Godfrey (2010) suggested that instructors should learn how their participants learn and accommodate to those various learning styles. By doing so, instructors ensure healthy learning experiences for their participants (Farooq & Regnier, 2011).

Improve Training Technology

Adequate technology in the training classroom is essential for optimal learning. Adequate technology includes fully functioning computers with advanced software programs, along with other up-to-date technological advances, such as smart boards and e-learning tools (Bixby, 2012). One of the main criticisms the participants had about their learning experience was the breakdown in computer technology. Computer slowness and constant glitches caused a few delays in training that were very frustrating to the participants. With so many technological advances, such as social media, mobile learning capabilities, and web and video enhanced training, the participants expected much better technological capability during the learning experience. Learning organizations have to allot a significant amount of their training budget to maintaining and improving the technology components of their training

programs. At the least, the training classroom environment should mirror the production environment. Participants need to use of the same technology in class that they would use in production for learning to be reinforced and for training to transfer to production.

Promote Creativity

The instructors showed skill for using a variety of delivery techniques in the classroom, such as humor, group activities, lectures, and review games. The participants were very receptive to the blended approach to learning new material. However, two areas that participants were reluctant about were reading and role plays. Participants showed a lack of interest to the repetitive reading assignments throughout the training period. Only when an incentive was added for the volunteer that read did the participants show any kind of interest in reading. The participants indicated that the reaction to reading aloud was related to being mostly visual learners who were stimulated by using charts, graphs, diagrams, illustrations, pictures, video, and demonstrations.

Although some aloud reading is ideal, especially when the audience includes a person who prefers verbal learning, the participants become disengaged when their predominant learning style is not acknowledged or accommodated by the instructor. In this case, as stated previously, the instructor could have learned how the participants preferred to learn and made adjustments to accommodate their learning style preferences. For instance, for alternatives to reading assignments with classroom full of a majority of visual learners, the instructor might employ a simulation, demonstration, or illustration of the policy or procedure that provides the same meaning as the reading.

Instructors need to design and deliver training programs able to target the various learning styles they might encounter in their classes (Leong, 2005).

Suggestions for Future Research

During this ethnographically informed case study, I attempted to acknowledge and increase understanding for designing and delivering training programs that meet the needs of diverse learning styles. Learning professionals and learning organizations may not be fully aware of these learning styles needs. Budget constraints and lack of acceptance might have prevented the enhancement of training programs in such a way.

I utilized both quantitative and qualitative methods with six training classroom participants and their two classroom instructors during a 6-week new hire training class. The goal of was to learn the participants' perceptions about their optimal learning experiences, preferred learning styles, preferred classroom environments, and motivation to learn as well as about the instructors' preferred teaching styles. I sought to learn what strategies the instructors utilized that fostered or inhibited the participants' learning optimization.

Much was learned in this case study; however, further research is recommended. First, a comparison of at least two classes is suggested. Although, the goal of qualitative research is not to generalize (Glesne, 2011), it would be helpful to know how the dynamics and interactions of a different group of participants would aid in the understanding the various learning styles' characteristics. What if no Jasmin-like participant was in the next class? What if another instructor was less skilled at making necessary adjustments? The immediate reactions of the participants on their Level 1

evaluations might have been different. Such differences could impact on participants' perceptions, behaviors, and ILS scores.

Second, a comparison between a process-only class and a non-process-only class might evoke different outcomes on all evaluations and surveys. For instance, most of the class consisted of sequential learners who learned linearly and in small, incremental steps. This linear sequence is exactly how process training is designed, so naturally, the majority of the participants appreciated this type of training. If these same participants had to attend a 6-week training class that was predominantly soft skilled, then they might have struggled to understand the content or might not have appreciated the content's delivery.

Third, rather than use a learning style indicator for the participants and a teaching style indicator for the instructors, study needs to be conducted with one learning style indicator for both participants and instructors. Most instructors resort to using teaching techniques that match their own learning styles (Campbell, 1991). They assume their learning style is the most effective way to interact or communicate with others (Taylor, 1995). Therefore, understanding instructors' learning styles rather than or in conjunction with understanding their teaching styles may offer additional insight about the contributors or inhibitors of their preferred strategies for helping participants learn. Using the same instrument for both instructors and participants might improve data analysis because the design removes the need to cross-examine differently measured the learning and teaching characteristics.

Fourth, an attempt to match the learning styles of participants with the learning styles of instructors should be conducted to determine if participants perform better, the

same, or worse. Even if the 6-week new hire training class had to have up to three or four instructors to test the Matching Styles Theory, which suggests that the transfer of learning increases when the learning styles of participants and their instructors are matched (Jeffrey et al., 2010), it could reveal critical information needed by instructional designers and instructors preparing curriculum for future classes. As examples, Rosa might have performed better on her assessments, Carmen might have interacted more in class, and Jasmin might have exhibited more positive behaviors if they were taught by an instructor with the same or very similar learning styles to theirs (Okanlawon, 2006). Carmen experienced a little application of this theory when Bethany facilitated her topic. Carmen expressed being used to Bethany's style of teaching and understood Bethany better than she understood Antonio.

Finally, further research need to include a study on non-profit learning organizations or institutions of higher learning where participants attend training or a learning event because they want to attend and not because they are required to attend. If they do not agree or have a dislike for the learning environment or the instructor, they could choose to leave. They might be much more critical of their learning experience because if they do not have an investment in it or if their employment is not at risk if they choose to quit. If the goal of the research is solely to understand learning and teaching styles, the data collected during interviews and observations and the results from the various instruments could yield an outcome much different from the experiences provided by the employees of a corporate learning organization. Nonetheless, the information revealed from this research study might be helpful for non-profit organizations designing training programs to meet clients' needs.

Ethnography can be very useful in corporate learning settings. Along with quantitative tools that measure a participants' readiness and skill level in certain topic areas, rich qualitative tools, such as interviewing and participant observation are also instrumental in a getting a full understanding of the participants' perspectives and their performance. For training and development specifically, asking participants for their thoughts and insights on the relevancy of training topics or directly observing their behaviors and performance post training would help designers and instructors target certain areas and make revisions and adjustments accordingly.

Conclusion

Training is more than a review of policies and procedures. Training establishes expectations that classroom participants will be able to make an easy transition from training to production. Moreover, effective training involves a multi-faceted approach to learning that involves the instructor, the participant, and the learning organization. A well-designed training curriculum needs to meet the needs of the multiple learning styles that exist in the classroom. The technology and resources that aid in the positive transfer of learning need to be functional and effective. Even with minimal training budgets, instructors and designers must ensure that every participant has the opportunity to learn at their optimal potential. This assurance includes providing a blended design, facilitation, and instructors skilled at making immediate adjustments when necessary.

Ideally, participants would have multiple class options and the ability to choose a class meeting their exact needs (Fatt, 2000). For example, a participant might choose to attend Class Option B over Class Option A because B offered no reading

assignments, no lectures, self-directed study, and full simulations. Class B operated exactly how the participant preferred to learn. Another participant might choose to attend Class A because the instructor assigned reading, provided several 20-minute lectures, and did not include a lot of group activities. Class A operated exactly how the participant preferred to learn. Practically speaking, instructors can be proactive and learn to adjust to the learning styles of their participants. They can accomplish this task with any one of the hundreds of learning style surveys that exist, many of which are free and administered online.

Once instructors know who they are going to be training for the next several weeks, then they can make sure they use those techniques that reach the needs of their participants' multiple learning styles. Leong (2005) and McPherson and Willis (2010) agreed that when training programs are designed and delivered in a way that meets the needs of the participants' learning styles and when instructors create the appropriate learning environment, the participants, the instructors, and the learning organization benefit advantageously.

APPENDIX A

LEVEL 1 COURSE EVALUATION LEAD INSTRUCTOR

Level One Course Evaluation

Please select the rating which most closely describes your reactions to the learning event you have just attended. Your feedback enables us to provide you and future learners with the best possible learning experience. Thank you for your participation!

1-Strongly Disagree 2-Moderately Disagree 3-Neutral 4-Moderately Agree 5-Strongly Agree

Name:

Instructor

1. The instructor was courteous and professional throughout the course.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

2. The instructor communicated clearly and was easy to understand.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

3. The instructor facilitated training in a way that held my interest.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

4. The instructor demonstrated knowledge of the program materials.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

5. The instructor encouraged participation and involvement from the entire group.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

6. The instructor solicited questions and allowed adequate time to answer questions.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

7. The instructor allowed adequate time to practice what I learned.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

8. The instructor presented the material at an appropriate pace.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

9. The instructor used relevant and understandable examples and/or illustrations.

	1	2	3	4	5

Strongly disagree ● ● ● ● ● **Strongly agree**

10. The instructor provided support and/or feedback throughout the course.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

11. Overall, I feel the instructor really helped me to learn and apply the material.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

Course Materials

12. The course objectives were clearly identified.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

13. The PowerPoint presentation/visual aids helped me to understand the information.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

14. The information in the Participant Guide was easy to read and understand.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

15. The appearance and format of the printed materials helped me access and retain information.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

16. The examples and/or illustrations presented were relevant and understandale.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

17. The course materials were presented in a logical sequence.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

18. Overall, I was satisfied with the course materials.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

Course Experience

19. The course was the right length for covering the subject.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

20. The course increased my capability of performing current or future job responsibilities.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

21. The exercises we did in class were effective in helping me learn.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

22. The course content met my expectations.

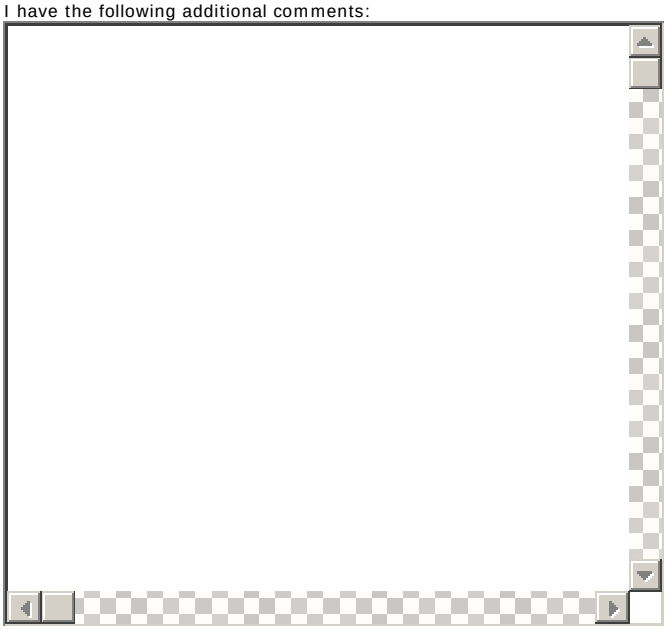
	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

23. Overall, the course was a valuable use of my time.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

Overall Course Perception

24. I have the following additional comments:



Submit answers

APPENDIX B

LEVEL 1 COURSE EVALUATION CO-INSTRUCTOR

Level One Course Evaluation Co-Instructor

Please select the rating which most closely describes your reactions to the learning event you have just attended. Your feedback enables us to provide you and future learners with the best possible learning experience. Thank you for your participation!

1-Strongly Disagree 2-Moderately Disagree 3-Neutral 4-Moderately Agree 5-Strongly Agree

Name:

Co-Instructor

2. The co-instructor was courteous and professional throughout the course.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

3. The co-instructor communicated clearly and was easy to understand.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

4. The co-instructor facilitated training in a way that held my interest.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

5. The co-instructor demonstrated knowledge of the program materials.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

6. The co-instructor encouraged participation and involvement from the entire group.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

7. The co-instructor solicited questions and allowed adequate time to answer questions.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

8. The co-instructor allowed adequate time to practice what I learned.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

9. The co-instructor presented the material at an appropriate pace.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

10. The co-instructor used relevant and understandable examples and/or illustrations.

	1	2	3	4	5	
Strongly disagree	●	●	●	●	●	**Strongly agree**

11. The co-instructor provided support and/or feedback throughout the course.

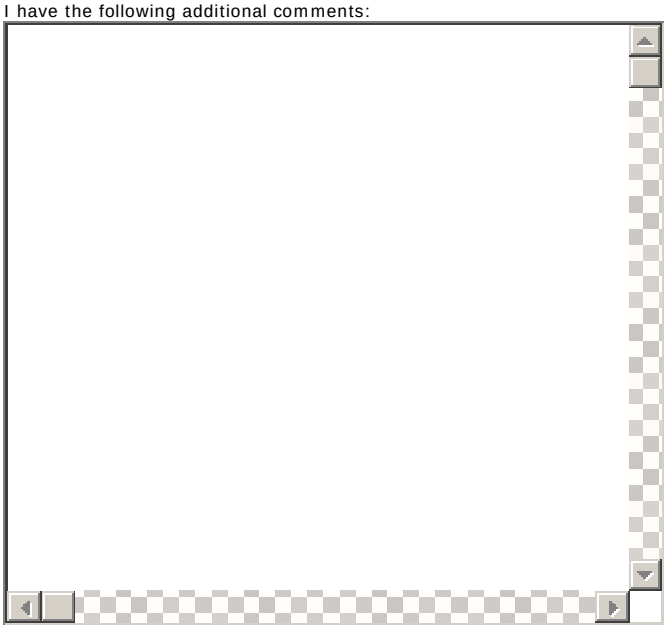
	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

12. Overall, I feel the co-instructor really helped me to learn and apply the material.

	1	2	3	4	5	
Strongly agree	●	●	●	●	●	**Strongly disagree**

Overall Course Perception

25. I have the following additional comments:



Submit answers

APPENDIX C

OBSERVATIONAL CHART FOR PARTICIPANTS

Observational Chart for Participants

Participant	Verbal Cues	Non-Verbal Cues	Learning Style
A			
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			
L			
M			
N			
O			
P			
Q			
R			
S			
T			

APPENDIX D

OBSERVATIONAL CHART FOR INSTRUCTORS

Observational Chart for Instructor

Instructor	Verbal Cues	Non-Verbal Cues	Teaching Style

APPENDIX E

INTERVIEW PROTOCOL FOR PARTICIPANTS

Participant Interview Questions

Prior Auto Finance Servicing Experience:

1. How would you describe your level of knowledge and understanding with auto finance servicing prior to attending this class?
2. Have you ever taken a formal training class before? If so, when?
3. What type of training was it?
4. What did you like most about that training class?
5. What did you like least about that training class?

Expectations:

1. Based on your past training experience, describe your ideal learning environment.
2. Before the first day of this class, what was your expectation of this learning environment?
3. If you could, what changes would you make to the learning environment?

Classroom Training Experience:

1. Describe your learning style (how you learn best).
2. Describe your preferred teaching style (how you desire instructors to teach/facilitate)
3. Overall, how does this training class compare to any that you've taken in the past?
4. What would you say was the most effective part of this training class?
5. Were there any distractions to learning in this training class? If so, what were the top 3 distractions in your opinion?
6. Distraction 1 _____ How did this distraction affect your learning?
7. Distraction 2 _____ How did this distraction affect your learning?
8. Distraction 3 _____ How did this distraction affect your learning?

Learning Motivation:

9. Given your level of knowledge and understanding of auto finance servicing prior to attending this class, how satisfied are you with what you just learned?
10. How confident are you in your ability to use the skills on the job that you just learned?

APPENDIX F

INTERVIEW PROTOCOL FOR INSTRUCTORS

Instructor Interview Questions

Training Design

1. How do you design training materials to ensure that the training content is fully transferred to the participant?

2. How do you organize your training presentation? (i.e., inductively – phenomena leading to principles, or deductively – principles leading to phenomena)

Facilitation

3. Generally describe your facilitation style?

4. What mode of presentation do you prefer (i.e., visual or verbal)?

5. What mode of student participation do you facilitate by the presentation (i.e., active – students talk, move, reflect, or passive – students watch and listen)?

6. What type of perspective do you provide on the information/content presented (i.e., sequential – step-by-step progression (the trees), or, global – context and relevance (the forest)?

7. What are some activities that you present during the training program to engage participants?

8. Describe techniques that you use when participants struggle or have difficulty learning the content?

APPENDIX G

PARTICIPANT CODES

Participants

Theme	Categories	Code *n*	Theme %	Total Codes %
Preferred Classroom Environment	Use of Professionalism	1	9.09	1.09
	Integration of workbook	1	9.09	1.09
	Freebies	1	9.09	1.09
	Personal workspace	2	18.18	2.17
	Classmates in similar positions	1	9.09	1.09
	Group Sharing	2	18.18	2.17
	Classmates are on-time/present	1	9.09	1.09
	Small group of people	2	18.18	2.17
Least Preferred Classroom Environment	Shared workspaces	1	6.67	1.09
	Classroom Disruptions/Frequent visitors	2	13.33	2.17
	Temperature	1	6.67	1.09
	Computer issues/training software problem	5	33.33	5.43
	Instructors over explaining topics	1	6.67	1.09
	Dark classroom	1	6.67	1.09
	Too many students in class	1	6.67	1.09
	Multiple instructors	1	6.67	1.09
	Lack of one-on-one instruction/help	1	6.67	1.09
	Disparity in student ages	1	6.67	1.09
Preferred Learning Style	Reading followed by doing	2	12.50	2.17
	Reading	1	6.25	1.09
	Role Playing	2	12.50	2.17
	Demonstration	2	12.50	2.17
	Question asking	2	12.50	2.17
	Experiential	2	12.50	2.17
	Use of repetition	1	6.25	1.09
	Self-correction	1	6.25	1.09
	Sharing knowledge	2	12.50	2.17
	Discussing the "Big-picture"	1	6.25	1.09

(table continues)

(*Table continued).*

Theme	Categories	Code *n*	Theme %	Total Codes %
Least Preferred Learning Style	Use of repetition	2	16.67	2.17
	Use of role play	3	25.00	3.26
	Use of assessment	1	8.33	1.09
	Playing games	1	8.33	1.09
	Competition	1	8.33	1.09
	Given answers	2	16.67	2.17
	Taking live calls too early/thrown in	2	16.67	2.17
Motivation for Learning	Desire/drive to be at new job	2	40.00	2.17
	Love of knowledge	1	20.00	1.09
	Needs instruction for job	1	20.00	1.09
	Build upon existing knowledge	1	20.00	1.09
Preferred Teaching Style	Instructor is nice/funny/entertaining	7	35.00	7.61
	Instructor asks for questions	2	10.00	2.17
	Instructor seeks understanding and feedback	3	15.00	3.26
	Instructor uses examples/scenarios	4	20.00	4.35
	Instructor is "to the point"	1	5.00	1.09
	Showing how procedure is done	1	5.00	1.09
	Instructor shows correct procedures	1	5.00	1.09
	Instructor is knowledgeable	1	5.00	1.09
Least Preferred Teaching Style	Use of Role Plays	3	23.08	3.26
	Assessment	1	7.69	1.09
	Games	1	7.69	1.09
	Live calls during training	1	7.69	1.09
	Having a bad attitude	1	7.69	1.09
	Getting off topic	1	7.69	1.09
	Fear of being "thrown in"	1	7.69	1.09
	Being given/fed answers	2	15.38	2.17
	Class is unorganized	1	7.69	1.09
	Reading to self	1	7.69	1.09
Total Number of Codes		92		100.00

APPENDIX H

INSTRUCTOR CODES

Instructors

Theme	Categories	Codes *n*	Theme %	Total Codes %
Fostering Participant Learning Optimization	Develop relationship with learners	2	8.33	3.13
	Encouraged participation	3	12.50	4.69
	Use of ice-breakers	1	4.17	1.56
	use of team activities	4	16.67	6.25
	Doing hands-on activities	1	4.17	1.56
	Ask questions to learners	5	20.83	7.81
	Reward learners/point system	3	12.50	4.69
	Use personal experiences	1	4.17	1.56
Inhibiting Participant Learning Optimization	Large class sizes	1	20.00	1.56
	Individual Exercises	1	20.00	1.56
	Technology/computer issues	1	20.00	1.56
	Being asked to read	1	20.00	1.56
	Lack of examples during instruction	1	20.00	1.56
Preferred Teaching Style	Visual/Verbal Mix	2	8.00	3.13
	Lecturing	1	4.00	1.56
	Activity	5	20.00	7.81
	Visual	1	4.00	1.56
	Global approach/real world	3	12.00	4.69
	Grouping students together	2	8.00	3.13
	Inductive teaching	1	4.00	1.56
	Variety of training methods	3	12.00	4.69
	Step-by-step instruction	2	8.00	3.13
	Use of examples/scenarios	2	8.00	3.13
	Ask questions to learners	3	12.00	4.69
Least Preferred Teaching Style	Lecturing	1	100.00	1.56
Use of Learning Activities	Teach-Back	4	30.77	6.25
	Role play	1	7.69	1.56
	Games	3	23.08	4.69
	Demonstrations	2	15.38	3.13
	Performances	1	7.69	1.56
	Question asking rounds	1	7.69	1.56
	Teams	1	7.69	1.56
Total number of codes		64		100.00

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