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The Effect of an Adult ESL Project-Based Literacy Training on Teacher Practice

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The Effect of an Adult ESL Project-Based Literacy Training on Teacher Practice

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Education in Teaching English to Speakers of Other Languages

by

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Abstract

This case study evaluates the effectiveness of a project-based learning professional development training conducted at a literacy center for nine ESL teachers who are working in a workforce literacy environment. The researcher investigated principles of andragogy in the training and examined whether participants implemented the content of the training in their teaching environments via observation, self-reported answers on a questionnaire, individual interviews, and a focus group. There was no direct follow-up after six weeks of the training. The findings of the study indicate that none of the teachers implemented project-based learning in their teaching environment directly following the professional development training.

Keywords: Andragogy, Adult Education, ESL Professional Development, Teacher Training, Program Evaluation, Project-Based Learning, Workforce Literacy.

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Soli Deo Gloria.

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Chapter 1: The Effect of an Adult ESL Project-Based Literacy Training on Teacher Practice

What characteristics make a quality professional development (PD) program for teachers of adult English language learners (ELLs)? As many adult education programs for Teaching English as Second Language (TESL) have grown, they have identified the need to increase program effectiveness and revise program design. For continuing program improvement and funding requirements, program administrators need to make informed decisions whether teachers achieve intended learning outcomes and if they later apply what they have learned in their teaching. Stakeholders for such programs may also be external; for example, sponsors such as grantors and adult resource centers. These entities have a keen interest in whether learning outcomes are achieved, the effect of teacher training on student learning, and identifying the components of successful training programs. This case-study seeks to answer the general research question by examining the effects of a one-day professional development training for teachers at a literacy council who are working at a local factory teaching workforce literacy.

Background

The Literacy Council's (LC) vision is to ensure that all people in the county it serves possess literacy and language skills that enhance their lives and empower them to become fully participating members of the community. Established in 1964, the Literacy Council is recognized as the oldest and largest literacy council in Arkansas. In 2016, the LC served 530 adults from 54 countries (Literacy Council, 2017). The LC's programs have helped many adults reach their goals such as getting a better job, achieving financial security for their family, helping their children with their homework, increasing community involvement, and obtaining U.S. citizenship. Last year, the LC had 140 volunteer tutors who offered their time to give students a

chance to learn and improve reading, spelling, grammar, writing, pronunciation, and conversational English skills (Literacy Council, 2017).

In 2016, the Literacy Council partnered with a local chicken processing plant located in Arkansas, to create a workforce literacy program. The program has 65 employees who consistently attend classes three times a week at either 5:00-7:00 A.M., 3:00-4:30 P.M., or 10:00-12:00 A.M at two factory locations (Interview #1, March 1, 2018). Three of the four teachers have an M.Ed. in TESOL. One of the teachers has three years of experience teaching English to Speakers of Other Languages (ESL) at the Literacy Council.

Statement of the Problem

The rationale for this research project is to address the learning needs of adult English language learners (ELLs). Research shows that project-based learning—a teaching method in which students gain knowledge and skills by working for an extended period to investigate and respond to an authentic, engaging and complex question, problem, or challenge—can engage students in deeper learning (Markham, et al., 2003; Hallerman, et al., 2011). Workforce literacy centers in this region are not currently implementing project-based learning, a research-based model for engagement (Interview #1, March 1, 2018).

Demographics of Adult Literacy in the U.S.

The number of immigrants continues to increase in the United States (U.S. Census Bureau, 2012). According to the U.S. Census Bureau, by 2060, minorities will make up approximately 50% of the overall U.S. population, and nearly one in three U.S. residents would be Hispanic. The report states, “The U.S. is projected to become a majority-minority nation for the first time in 2043. While the non-Hispanic white population will remain the largest single group, no group will make up a majority” (U.S. Census Bureau, 2012). Researchers project that

minorities, 37% of the U.S. population in 2012 at the time of the study, will comprise 57% of the population in 2060. Moreover, since the 1990's, the South has seen a dramatic increase in immigration mostly due to increased economic opportunity (Bankston, 2007).

Arkansas and Tennessee had seen rapid growth in their Hispanic populations over the course of the 1990s. Arkansas's total Hispanic population, native and foreign born, had grown from 19,586 in 1990 to 43,309, in 2000, with Mexicans constituting over 70 percent of the state's Hispanics. This remarkable increase was due to jobs available in the poultry industry and to construction jobs. (Bankston, 2007, p. 40-41).

According to a study conducted in 2012 by the U.S. Department of Education and the National Institute of Literacy, 32 million adults, 14% of the population, in the U.S. can't read (Strauss, 2016). While 57% of adults in the U.S. are proficient (13%) or intermediate (44%), 21% of adults in the U.S. read below a 5th grade level, and 19% of high school graduates can't read (U.S. Department of Education, National Center for Education Statistics, 2016). Based on ethnicity, 41% of Hispanics, 24% of Blacks, and 13% of Whites in the U.S. read below a basic reading level in 2013. These alarming rates haven't improved since the previous decade. According to the National Assessment of Adult Literacy in 2003, 14% (90 million) of adult Americans demonstrated a "below basic" literacy level, and 29% tested at a "basic" reading level (Tighe, Barnes, Connor, & Steadman, 2013).

Demographics of Adults in the LC Workforce Literacy

The workforce literacy program in this study has 80% Hispanics; 3% Asian; 3% White and 15% Pacific Islanders (specifically the Marshall Islands). Between two factory plants, most of the students are female—nearly 80%. The majority—58%—are between the ages of 45-59.

Table 1: Total students at two workforce literacy sites (Personal Communication, February 7, 2018).

Total students at two workforce literacy sites		
Student Number	80	
Gender		
Male	17	21%
Female	63	79%
Age		0%
18-24	2	3%
25-44	21	26%
45-59	46	58%
60 +	11	14%
Ethnicity		
Asian	2	3%
Ethnicity		
Hispanic	64	80%
Pacific Islander	12	15%
White	2	3%
Native Language		0%
Farsi	2	3%
Marshallese	12	15%
Spanish	64	80%
Vietnamese	2	3%
English Proficiency		0%
Unknown	23	29%
ESL L1 Basic	43	54%
ESL L2 Low Beginning	7	9%
ESL L3 High Beginning	6	8%
ESL L4 Low Intermediate	2	3%
ESL L5 High Intermediate	0	0%
ESL L6 Advanced	0	0%

At the two factory plants, 54% are in ESL L1 Basic, as categorized by the six National Reporting Service levels; 17% are at a beginning level; only 3% are in an intermediate level; and 0% are in high-intermediate or advanced (Personal Communication, February 7, 2018).

Researcher's Interest

I am interested in the effectiveness of professional development for educators of adult learners. My career goals include becoming an ESL teacher trainer. This research project

combines several of my interests in andragogy, assessing professional development, project-based learning, social justice and multi-cultural education. Because I have volunteered at the Literacy Council, I was aware of their workforce literacy program. When I approached the LC administration team about holding a professional development workshop and following-up with the teachers and the program director, they welcomed the research project as a growth opportunity for their teachers.

Significance of the Study

Millions of educators engage in professional development training annually. Can a small investment of time in the form of a workshop change teacher behavior? This study assessed whether applying the principles of andragogy to a workshop helps teachers incorporate the content of the professional development training on project-based learning. While a few studies examine the impact of project-based learning on adult second language learners and the perception of teachers who have implemented PBL in their adult language classrooms, no studies exist on project-based learning in the context of a workforce literacy site.

Investigating the elements and effectiveness of a professional development workshop is essential for the continued development and improvement of teacher education. Given the substantial investment of time and resources by the Literacy Council, partner institutions such as the local chicken processing plants, and support organizations such as the Arkansas Adult Learning Resource Center, exploring the effectiveness of teacher training is worthwhile. Answers to these research questions could help grantors and funding sponsors make decisions about program funding and program content. The research could also be beneficial to the Literacy Council in adjusting the curriculum to ensure that the program better meets the needs of participants.

Purposes of the Study

The purposes of this study are to: (1) determine which of the six principles established by Knowles' theory of andragogy have been incorporated into the project-based teaching workshop; (2) assess whether or not LC teachers are applying skills and techniques taught in the project-based-learning workshop as measured by a self-reporting survey, observation, interviews, and a focus group; (3) identify what challenges (if any) they encountered; and 4) identify the successes in applying the new teaching techniques as reported by a qualitative narrative. While a mixed-methods approach was used, qualitative research formed the basis of this report and provided a holistic understanding of participants. Through observations, interviews, a questionnaire, and a focus group, the research attempts to describe the affect the training had on teacher practice.

Research Questions

To achieve these purposes, the study will explore the following research questions:

1. To what extent does the professional development training incorporate Malcolm Knowles' six principles of andragogy?
 - 1) self-concept,
 - 2) experience,
 - 3) readiness to learn depends on need,
 - 4) problem centered focus,
 - 5) internal motivation, and
 - 6) relevance.
2. How do teachers self-report that they are applying skills and techniques taught in the project-based learning workshop?

3. What challenges do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?
4. What successes do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?

Definitions of Terms

1. *Adult learners*: a person 25 years and older who is involved in learning.
2. *Andragogy*: the method and practice of teaching adult learners; adult education.
3. *English language learners (ELLs)*: students whose first language is not English and who are in the process of learning English.
4. *Language acquisition* is not here distinguished from language learning, unless context indicates otherwise.
5. *Professional development*: Process of improving and increasing capabilities of staff through access to education and training opportunities in the workplace, through outside organization, or through watching others perform the job. I use the phrase teacher training or training program interchangeably with professional development in this paper.
6. *Project-Based Learning*: A teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge (Markham, Larmer, & Ravitz, 2003).
7. *Qualitative research*: Using tools such as interviews, focus groups, observation, and questionnaires to explore the teachers' experiences in implementing knowledge and skills gained during the training program.

8. *Second language (L2)* refers throughout the article to any language being learned other than the first language.
9. *Teaching English as a Second Language* or ESL refers to teaching English in a country where English is the native language of the people, such as the U.S.

Assumptions

This qualitative research operates on several assumptions:

1. The teachers will answer the questionnaire, interview, and focus group questions in an honest and candid manner.
2. Teachers have a sincere interest in participating in the research and do not have any other competing motives, such as impressing their job supervisor, by agreeing to be in the study.
3. If a teacher-trainer incorporates the principles of andragogy, this will improve the experience for the participants and will increase the likelihood that they will apply the content of the professional development training to their teaching.

Limitations

The first limitation is the small number of participants. This study involved nine participants—four teachers who work at the chicken processing plant, four AmeriCorps teachers, who received ESL training from the LC, and the LC program director. The AmeriCorps teachers attended the training to improve their teaching at the Literacy Council. Although their work is not in a factory setting, the AmeriCorps teachers do teach workforce literacy to their adult learners. Their participation in the survey and focus group was included, but I chose not to interview them or observe their teaching environment. Because of the small sample size, the results are very specific to the design and content of the collaboration between the Literacy

Council and the workforce location. However, many implications from this research may apply in other similar contexts.

The greatest limitation of this study was time. A longitudinal study over several professional development trainings may provide stronger conclusions. Because of the time constraints of a master's thesis, this study focused on only one professional development workshop and its impact for one month. While it would be preferred to interview every teacher involved in the professional development, also due to time constraints, only two teachers were observed and/or interviewed.

Researcher's Role

I am aware of the possibility of bias in interpreting the results, given my connection to the participants of the program. In the spring of 2017, I assisted with teaching at the chicken processing plant for one week. This involvement with the program increased my desire to observe the components of the program and to discover how teachers apply what they learn. However, my awareness of the potential for bias and intentional conversations with my thesis advisor, Dr. Howlett, helped me identify bias.

Delimitations

Given no time or cost constraints, interviews with all the teachers and focus groups with their students at the plants would paint a more complete picture of how the training has been implemented. As discussed above, the feasibility and practicality of collecting such data must be carefully considered (Kirkpatrick & Kirkpatrick, 2006; Phillips, 2002). Because this study focuses on adult education, the literature review did not include the abundance of research about the effectiveness of project-based learning in K-12 settings but instead focused on adult learning settings.

Conclusion

While in depth follow-up on teaching training is infrequently carried out due to time constraints and expense, I hope my observations and follow-up interviews can uncover features that work well in such teacher training programs on project-based learning. In the case of the Literacy Council, observing, listening to, and surveying teachers who have gone through a professional development training could be helpful to understanding how other trainings impact the participants.

Chapter 2: Literature Search and Review Process

Because this case-study focuses on the specific topic of the effect of a professional development training on project-based learning for adult education at a work force literacy program, this literature review covers four research topics. This chapter reviews the literature relevant to 1) adult learning principles; 2) the assessment of teacher professional development programs and experts' recommendation on how to design effective evaluation studies; 3) typical motivations of adults in literacy programs; and 4) project-based learning. While I found research on project-based learning in children's community centers and in community-based literacy centers, I found no studies on project-based learning in an adult workforce training setting; hence, this literature review draws from a cross-section of research topics.

I first searched for the characteristics of motivated, adult learners and discovered Knowles' theories on andragogy, which describes how teaching adults differs from teaching children. I then searched for which components are needed for quality programs, starting with industry general best practices of short-term training programs and then best practices for teacher training. After a brief survey of various training evaluation models, I narrowed my focus to the literature on the evaluation of teacher education and in-service teacher training programs, from Thomas Guskey in the 1980's to Desimone in 2009. Next, I looked at the demographics and self-reported motivation of adults in typical adult education programs and compared this with the data from the Literacy Council's program. I concluded with a brief overview of research on teachers' perceptions of project-based learning, particularly with ESL adults. I found Wurdinger's (2007) study on a one-day PBL teacher training particularly relevant to my research.

Andragogy

Social Learning Theory.

First, can individuals learn from each other? Bandura discovered that through observing, imitating and modeling, people do indeed learn from each other (Bandura, 1977). His social learning theory of social constructivism has been highly influential to professional development and education in general. As people observe others model certain behaviors, this information serves as a guide for later action. Social learning theory explains human behavior as continual reciprocal interaction (Bandura, 1977). Bandura's work (1977) also has implications for PBL as his research findings emphasize the defining role of peers in the development of social skills. For example, the beneficial effect of observing a good example can serve as a basis for imitation of learning behavior.

Adult Learning Principles.

While all humans are social creatures who learn from each other, Knowles posits that adult learners have different needs than children. Knowles (1980) explains that adult students want the time they spend in a classroom to be as useful as possible not only for themselves as students but also as human beings. Knowles (1980) states that the adult learner comes into an educational activity largely due to experiencing some inadequacy in coping with current life problems. The adult learner wants to apply tomorrow what is learned today, and the learner enters into education with a problem-centered orientation to learning.

In 1980, Knowles created four principles about the characteristics of adult learners (andragogy) and added two more in 1984. As a person matures, the learner:

1. becomes more self-directed.
2. uses experiences to become a reservoir to draw on for subsequent learning.

3. understands that one's social role influences readiness to learn.
4. prefers problem-centered vs. theory-centered.
5. has an increase in internal motivation
6. needs to know the purpose of the learning. (Knowles, 1980, 1984).

Environment: physical, social, psychological.

Knowles recommends that instruction of adults consider the physical and psychological atmosphere. He advises avoiding a “typical” classroom setup, with chairs in rows and a lectern in front. His preference is to have the participants sitting five or six around tables (Knowles, Holton, Swanson, 2014). Merriam and Brockett (2007) agree that the environment is critically connected to adult learning outcomes. They define the environment with three categories: physical, social, and psychological. Physical factors such as “room size, temperature, lighting, acoustics, seating type and arrangements, and how technology is arranged and used in the learning space” play an important role in successful learning outcomes by cutting down on learner discomfort and distraction (Merriam and Brockett, 2007, p. 150).

The social environment “centers on the culture of the teaching learning setting... which recognizes the importance of factors such as race and sex in relation to have adult educators work with learners” (Merriam and Brockett, 2007, p. 150). Addressing the psychological environment involves creating a welcoming and supportive atmosphere. Educators and learners engage in genuine exchange of mutual respect. The educator is able to acknowledge doubts and fears of the adult learners. Furthermore, the educator does not only acknowledge, but includes the learners' previous life experiences as learning resources (a key principle of andragogy). These environmental considerations, coupled with an understanding of different cultures

represented in a program can help to make professional development trainings more effective places of learning and development.

Educators can distill these characteristics into several guidelines for adult learning.

1. Adults need to be involved in the planning and evaluation of their instruction.
2. Experience provides the basis for the learning activities and participants should diagnose their own needs.
3. Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.
4. Adult learning is problem-centered rather than content-oriented. (Knowles, Holton, Swanson, 2014).

These guidelines create a psychological climate of mutual respect, collaborative experiences, mutual trust, openness, pleasure, and supportiveness (Knowles, 1984). Moreover, Pontz (2003) highlights even more specific conditions that education for adults needs to meet: clarity of goals, adequate levels of challenge, capitalization on previous knowledge, sustainability, organizational support, and alignment of achievement with the goals set.

This study assumes that teacher training programs need to include principles of adult education to be effective. In this study, Knowles' theory is used as the theoretical framework for analyzing the PD delivery model as well as the basis for the questionnaire. I observed the PD trainer in the professional training environment to see which aspects of Knowles' best practices were implemented. I also asked the professional development training participants about the following in a questionnaire immediately after their training:

Connecting content of professional development to principles of adult learning.

Which of the following statements apply to the professional development training at the Literacy Council? (You can choose multiple entries).

- A. I was involved in the planning of the instruction.
- B. I was involved/will be involved in the assessment of the instruction.
- C. My experiences provided a basis for the learning activities.
- D. The content was relevant to my job.
- E. The content was problem-centered rather than theory-oriented.
- F. I know why the content is important.
- G. I felt respected by the trainer.
- H. I felt respected by the other learners.

Connecting physical environment of the professional development training to principles of effective learning. Which of the following statements apply to the professional development training at The Literacy Council? (You can choose multiple entries).

- A. The training environment was welcoming and supportive.
- B. The room size was comfortable.
- C. The temperature of the training environment was comfortable.
- D. I could hear the presenter clearly.

(Professional Development Questionnaire, Appendix B).

Joyce and Showers (2002) assert that in addition to knowing the rationale for gaining new skills, successful training needs to involve modeling new skills, practicing skills, and peer coaching. Successful training should also include teachers collaboratively planning and developing the lessons and materials to implement the training effectively. Let's examine frameworks for evaluating successful training.

Training Program Evaluation

Better understanding how teacher training affects teaching practices and teacher behavior is critical for educational assessment. Teacher professional development is on-going at all levels of education, and institutions allocate large sums for training to improve teacher performance and student learning. Researchers in teacher development emphasize the need to study the impact of these teacher training experiences (Desimone, 2009; Fishman, et al., 2003). Kirkpatrick (2006) states when administrations don't also allocate enough funds for evaluations, "[T]hey do not understand the tremendous power of evaluation not only to improve courses and programs, but also to reinforce mission-critical behaviors on the job, and to demonstrate the value of their efforts." Considering the time and resources spent on training, it's due diligence to evaluate which training programs are leading to greater student outcomes and use the data to improve training programs (Phillips, 2002). What gets measured, gets accomplished.

Professional development needs to "start with the end in mind," and a system needs to be in place to measure implementation. According to Kirkpatrick (1998), the evaluation phase is often neglected (due to difficulty in collecting data as well as time and other resources). This is akin to investing and not caring if one is receiving an adequate (or any) return on investment (Shenge, 2014). Yet, the accountability of training programs has emerged as an important trend, not only in the United States but also worldwide (Preskill & Russ-Eft, 2003). Preskill and Russ-Eft (2003) point out that evaluation of training is also being demanded in the nonprofit sector, including education, in the United States. As education budgets decrease, stakeholders look at what schools spend on professional development and want to know if the money could be spent in better ways. Such questions make effective evaluation of professional development programs and demonstration of tangible benefits more important than ever (Guskey, 2002).

Frameworks for the Evaluation of Training Programs

The Kirkpatrick Training Evaluation Framework.

Donald Kirkpatrick is best known for creating a 'four level' model for training course evaluation, which served as the subject of his Ph.D. dissertation in 1954. The four levels of Kirkpatrick's evaluation model are as follows:

1. Participant response - what participants thought about the training.
2. Learning - the increase in knowledge, skills, and/or change in attitudes. Evaluators can assess via a knowledge demonstration or test.
3. Behavior - transfer of knowledge, skills, and/or attitudes from classroom to the job. Evaluators usually assess through observation.
4. Results - the final outcomes that occurred because of participation in a training program.

In Kirkpatrick's four-level model, each subsequent level is built on information provided by the lower level (Kirkpatrick, 1998; Winfrey, 1999). As time and budget warrants, evaluators gather information from each previous level to provide a base for the next level's evaluation (Winfrey, 1999). Each succeeding level represents a more accurate measure of the training's effectiveness, but at the same time requires a more rigorous and time-consuming analysis (Winfrey, 1999).

Evaluation at level one gauges how participants respond – both thoughts and feelings – to a training program (Winfrey, 1999). Did the participants feel the program was relevant to their work? Did they think it was useful? Kirkpatrick (1998) recommends that every program should be evaluated for participants' reactions as baseline criteria. Again, the evaluation levels build on each other. The participants' reactions affect their learning. Although a positive reaction does not

guarantee learning, a negative reaction almost certainly reduces its possibility (Winfrey, 1999).

The participants in the LC professional development training received a questionnaire that provided feedback on the following:

1. Understanding the purpose of the professional development.
2. Rating the usefulness of key components of the professional development.
3. Perceptions of the extent to which the professional development met participants' needs. (Professional Development Questionnaire, Appendix B).

Level two assessment often involves a pre-test and post-test as the evaluators attempt to determine the extent learners have advanced in skills, knowledge, or attitude. Measurement at this level is more difficult than level one (Winfrey, 1999). Typical methods range from formal to informal testing to team assessment and self-assessment (Winfrey, 1999). To measure the advancement of skills, three weeks after the initial training, the participants in the LC professional development training were asked to participate in a focus group. (Focus Group Protocol Guide, Appendix C).

Evaluators at level three have the challenge of measuring learners' behavior change due to the training program. Are the newly acquired skills, knowledge, or attitude being used in the everyday environment of the learner? (Winfrey, 1999). This level represents the truest assessment of a program's effectiveness. Because it's impossible to know when (or if) behavior change may occur, this level requires decisions of when, how often, and how to evaluate (Winfrey, 1999; Kirkpatrick, 1998). Because of the time constraints of the study, I decided to only allow two weeks to pass after the training before I followed up with participants through qualitative research methods.

For many business training experts (Kirkpatrick & Kirkpatrick, 2006; Winfrey, 1999; Krishnaveni & Sripirabaa, 2008), level four evaluation is often considered the “bottom line.” This level of evaluation attempts to assess training in terms that business results that managers and administrators value: quality improvement, decrease in costs, higher profits, etc. (Winfrey, 1999). Level four evaluation is the over-arching motivation for a training program, yet level four results are not frequently addressed as it’s hard to link results directly with training (Winfrey, 1999). Educational training models have similar challenges in measuring level four outcomes. The outcomes of professional development are often linked to student exams, closing the achievement gap, and reduction in drop-out rates. Adult education models may use student attendance and retention as an outcome.

Phillips (2002) and others have more recently suggested the addition of a fifth level of evaluation to Kirkpatrick’s model – return on investment (ROI). According to Phillips (2002), there used to be a naïve belief that all training, including soft-skills training, was good for the organization. “Today tangible evidence is required to show a training’s impact—even with the softest training programs. This tangible evidence comes through using a comprehensive measurement and evaluation process including ROI” (Phillips, 2002). While I used Kirkpatrick’s framework of the first three levels of evaluation to inform my research design, because of the short time frame, evaluating on levels four and five are out the scope of the research project. Guskey’s model further helped me understand how these foundational principles of evaluation can be applied to educators’ professional development.

Teacher Training Evaluation Models.

Guskey's model.

Education researchers have built on Kirkpatrick's ideas to create models specific to the evaluation of teacher training programs. Closely related to Kirkpatrick's framework is Guskey's model (Guskey 2000; 2002). Guskey believes that after level two (participants' learning) the focus shifts to the organization: "Lack of organization support and change can sabotage any professional development effort" (Guskey, 2002). While teachers may enjoy the training experience and learn something new, if the administration does not adequately support change, they may never be able to implement their training effectively. Guskey adds the questions to Kirkpatrick's model: Did the professional development activities promote changes that were aligned with the mission of the school and district? Were changes at the individual level encouraged and supported at all levels? Were sufficient resources made available, including time for sharing and reflection? Were successes recognized and shared? (Guskey, 2002). After reading Guskey's work, I added questions on the questionnaire that asked the participants to answer the following topic:

Perceptions of support and encouragement to participate in professional development.

Which of the following statement best describes the support you received from LC leadership to participate in this professional development?

- A. The leadership strongly encouraged me to participate.
- B. The leadership encouraged me to participate.
- C. The leadership tried to discourage me from participating.
- D. I did not discuss the professional development with leadership prior to participating.

Perceptions of support and encouragement to apply new knowledge and skills.

Which of the following statements best describes the support you received from LC leadership to apply what you learned in your teaching environment?

- A. The leadership has encouraged me to apply what I learned and offered to help.
- B. The leadership has encouraged me to apply what I learned.
- C. The leadership has not encouraged me to apply what I learned.
- D. I have not discussed what I learned with leadership.

Ratings of the likelihood of applying new knowledge and skills in the classroom.

Which of the following statement best describes the likelihood that you will apply what you learned in the Literacy Council professional development in your teaching environment?

- A. I have already practiced project-based learning with my students, and it seemed to work well.
- B. I have already practiced project-based learning with my students.
- C. I have already practiced project-based learning with my students, but it was not appropriate for my students.
- D. I look forward to practicing project-based learning with my students in the next few weeks.
- E. I look forward to practicing project-based learning sometime later this year.
- F. I would like to practice project-based learning, but I don't have the materials that I need.
- G. I don't think that these things will work well with my students.

(Professional Development Questionnaire, Appendix B).

Desimone's Conceptual Framework.

Desimone (2009) offers another framework for studying in-service teacher professional development. She writes: “We need more work that links professional development and changes in teaching practice to student achievement” (Desimone, 2009). Desimone proposes that effective teachers’ professional development needs the critical features: content focus, active learning, coherence, duration, and collective participation. The teachers’ change in attitudes and beliefs (which corresponds to Kirkpatrick’s level 2) and increased knowledge and skill leads to change in instruction and improved student learning (Desimone, 2009). Effective professional development has the following features:

- 1) Content focus: activities that focus on subject matter content and how students learn that content.
- 2) Active learning: opportunities for teachers to engage in active learning, including observing expert teachers, leading discussions, and reviewing student work.
- 3) Coherence: school, district, and state policies that are consistent with the teachers’ knowledge and beliefs are included in the training.
- 4) Duration: at least twenty hours of contact time, activities that are spread over a semester, or intense summer institutes.
- 5) Collective participation: teachers can develop communities of learning and collegiality through engaging in learning together (Desimone, 2009).

Desimone recommends how professional development should be measured. She urges researchers to move away from automatic biases against observation, interviews, or surveys in such studies. She asserts that teachers’ self-reporting about their behavior and attitude change is just as valid as outside observers’ reports (Desimone, 2009). After reading Desimone’s research,

I decided to interview a teacher, the trainer, and the program director after the professional development training to hear first-hand their opinions about implementing project-based learning (Interview Protocol Guide for Teachers, Appendix B).

Need for Early Adopters

Practice may not change just because something new has been learned. Joyce, Wolf, and Calhoun (2009) found that only 10% of practices were adopted, even after 10-15 days of training, unless followed by coaching or action research. Jefferson (2016) describes four types of teachers who respond differently to a professional development training: laggards (16%); late majority (34%) early majority (34%) and early adopters/innovators (16%). The early adopters and innovators almost immediately adopt the practices of a training, leading the way for the early majority to follow. Yet even early adopters' level of enthusiasm and engagement needs institutional support for a new practice to be adopted.

Need for Institutional Support

There is also research on PD which states that effective PD must be "job-embedded" and "on-going." There also needs to be some type of support system in place, such as mentoring or coaching. Darling-Hammond & McLaughlin (2011) recommend that staff development include teachers engaging in teaching, assessment, observations and reflections. Teachers should also work collaboratively to build professional teacher communities rather than only attempt individual initiatives (Darling-Hammond & McLaughlin, 2011, p. 578). Furthermore, the professional development must be sustained, on-going, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice (Darling-Hammond & McLaughlin, 2011, p. 578). Without all these factors in place, professional development implementation is greatly reduced.

Synthesis of the Literature on Training Evaluation

The proper evaluation of training requires administrators and program evaluators to consider the purposes of the training, the purposes of the evaluation, the audiences for the results of the evaluation, the points or spans of points at which measurements will be taken, the time perspective to be employed, and which overall framework to use. Only then can training and its evaluation produce gains that advance organizations' overall goals.

Common motivations of adults who participate in education programs

Adults participate in education programs for a myriad of reasons. In the words of Magdalene, a Marshallese student at the chicken processing plant, "I'm glad that [name of workplace] is offering English classes because I want to get a High School diploma, and I know with better English skills I can get a better job with [name of workplace]. With a GED I would be able to go to college, which is a goal that I have" (Personal communication with LC teacher, March 1, 2018).

Adult learners have the capacity of self-direction and the desire to pursue opportunities to better themselves to acquire the knowledge and skills necessary to succeed in the workforce, to earn a college or advanced degree, to learn basic skills or English language skills, or to enrich their lives (Finn, 2011, p. 36). According to an instructor at the workforce literacy program, many students want to learn English:

“[F]or relational reasons. Because their children speak English and are dating native English speakers. Besides hoping for better employment, the students are motivated by the desire to help their children with homework, to communicate with their future in-laws, and to speak with their grandchildren” (Interview with LC teacher, March 1, 2018).

Maria, a Mexican student who attends classes at the chicken processing plant, explains why she attends English classes:

I am here because I want to be a prepared person and my biggest wish is for my family to be proud of me. I would like to have a better job, grow as a person, and be able to help those who need my help. I would like to help my grandchildren with their chores, since I could not do that for my children. And someday I could get my school certification to have a better standard of living. I have dreams and I would like to fulfill them. I think that it is never too late to learn, I am happy that [name of workplace] gives us this opportunity. It was such a joy the day I came from the English class and showed my son that I scored A+ in the exam and he said ‘Good Job, Mami.’ (Personal communication with LC teacher, March 1, 2018).

Wlodkowski (2008) notes that “adults want to be successful learners” (p. 100); however, life circumstances and the busyness of daily responsibilities can have a negative impact on adults’ motivation to learn. Wlodkowski adds, “If adults have a problem experiencing success or even expecting success, their motivation for learning will usually decline” (2008, p. 100). Adult learners often have a practical mindset when choosing to participate in educational programs, and they often expect to experience success quickly. Because adult learners are busy, they must weigh the “opportunity cost” of participating and determine if they will gain more from the educational program than their costs (money, time, etc....) of participation (Finn, 2011; Tighe et al., 2013). Some educational researchers believe that project-based learning can help improve adult education, particularly in literacy and language (Liu, 2016). With this in mind, let’s look at the research for project-based learning.

Project-Based Learning

Originating from the educational philosophy of constructivism, PBL has undergone significant development as compared to the ideas proposed by John Dewey and his successor, William Kilpatrick, whose work popularized the phrase “project-based-learning” in the 1920’s. While their research was child-centered and introduced students to real-life contexts in the school environment, research in neuroscience and psychology has further extended cognitive and behavioral models of learning to show that knowledge, thinking, doing, and the context for

learning are inextricably tied. Educational researchers now know that learning is indeed a social activity; it takes place within the context of culture, community, and past experiences (Markham, Larmer, & Ravitz, 2003). More recently, the requirements of the 21st century in terms of both knowledge and skills have redefined the needs and roles of both learners and teachers. Presently, PBL addresses learners' need to be provided with real-life opportunities to apply their knowledge and skills as well as to enrich their knowledge and improve their skills during activities (Habók, & Nagy, 2016).

Because of these discoveries, PBL continues to grow in popularity, and the literature on project-based learning is expansive. Research remains focused more often on K-12 than postsecondary learning and on traditional classrooms rather than ESL learner settings. Over the past two decades, education researchers have begun to examine the impact of PBL on adult ESL learners. Significantly fewer studies focus on the connection between teachers' perception of project-based learning, particularly when working with ESL learners, specifically adults. Furthermore, I could find little to no published research on the effect of project-based learning on adults in work-force literacy programs nor teachers' perceptions of PBL in such programs.

Definition of project-based learning

Petersen and Nassaji (2016) have pointed out that there are different interpretations of PBL with various overlapping terms, for example, experiential learning, problem-based learning, inquiry-based learning, problem learning and the project method. In addition, action-based learning and discovery learning encompass similar features. An organization that promotes and defines project-based learning is the Buck Institute for Education, which published the *Project-based Learning Handbook: A Guide to Standards-Focused Project Learning for Middle and High School Teachers*. The handbook defines project-based learning as “a systemic teaching method that engages students in learning knowledge and skills through an extended inquiry

process structured around complex, authentic questions and carefully designed products and tasks” (Markham, Larmer, & Ravitz, 2003, p. 4).

Additional features of project-based learning

PBL emphasizes student-centered learning: students design and complete projects that are often chosen by them. Projects are “complex tasks, based on challenging questions or problems, that involve students in design, problem-solving, decision making, or investigative activities; give students the opportunity to work relatively autonomously over an extended period; and culminate in realistic products or presentations” (Thomas, 2000, p. 1). Hallerman (2011) also emphasized students’ role and added that the focus of PBL is building 21st century skills and a successful project assessment is based on meaningful learning and authentic tasks and products, student discovery and real-world application.

Other defining features include authentic, interdisciplinary content; teacher facilitation but not direction; explicit educational goals; cooperative learning; and reflection (Habók & Nagy, 2016). The idea that projects are collaborative and ultimately achieve some kind of result or reach some kind of goal is central to the definition of project-based learning (Petersen & Nassaji, 2016). It’s worth emphasizing that the process of completing the project is guided, but not directed, by a teacher. Additionally, PBL is a method which involves systematic planning on the teachers’ part (Markham, Larmer, & Ravitz, 2003).

Benefits of project-based learning

Railsback (2002) has identified several important benefits of project-based learning: it is active, interesting, relevant, increases communication skills, enhances motivations to learn, and is self-directed. Other benefits of project-based learning are learner-centeredness and encouragement of students' involvement and participation in classroom activities (Petersen &

Nassaji, 2016). Project-based learning taps into students' interests because it allows them to create projects that result in meaningful learning experiences (Wurdinger, 2010). Thomas (2000) reports on the effectiveness of PBL in diverse contexts, including racially diverse groups and low-achieving students.

Teacher perceptions of project-based learning

As noted by Fullan, "Educational change depends on what teachers do and think—it's as simple and as complex as that" (2001, p. 115). Without teacher acceptance, innovative methods, including project-based learning, won't make it into the classroom. A research project in Turkey revealed that teachers who were not well-informed about PBL, could not effectively guide students in this PBL, and had problems in implementing PBL. The researchers found that while teacher candidates were familiar with the basics of PBL approach, their lack of skills and knowledge in managing it caused them difficulties during their implementation process (Baysura, Altun, & Yucel-Toy, 2016).

Wurdinger et al. (2007) conducted a year-long study that looked at teacher acceptance and student engagement and discovered that providing a one-day staff training to educate teachers on how to use project-based learning enhances and promotes teacher acceptance, which is critical to implementing and sustaining the method. After the training, some teachers used individual projects; others used group projects. In both situations, teachers supported the use of project-based learning because they observed increased motivation when students engaged with their projects. Wurdinger emphasized the need for teacher collaboration for successful PBL implementation (Wurdinger, et al., 2007).

Cornell and Clark (1999) found an important conflict between perceived benefits and time-management after studying teachers moving from a teacher-directed lecture style to a

student-centered project-based learning format. They found that “free-ranging self-directed inquiry depends on a tight design structure” and “less teacher talk requires more teacher time” (Cornell & Clarke, 1999, p. 94). Even though they found that student motivation and learning increased in PBL, teachers found designing projects and preparing lessons very time intensive. After the initial adjustment, however, teachers reported being able to focus more on the students’ learning. Time-management is an important point to emphasize to educators before they implement project-based learning in their teaching. Solving problems through projects take more time than traditional methods because students may need to retry the project several times before completing it.

What students and teachers believe about PBL will affect sustained implementation. A Canadian study examined and compared ESL teachers' and learners' beliefs and attitudes toward project-based learning. Overall, both teachers and students preferred project-based learning in language classrooms to traditional lectures and textbook-based teaching (Petersen & Nassaji, 2016). Students and teachers mentioned that projects could help produce and improve language, encourage students to work collaboratively, collect information, use authentic information to share information, negotiate to complete tasks, and help students integrate into the community at large (Petersen & Nassaji, 2016, p. 27). In this study, however, students reported they didn’t enjoy participating in group work. The researchers believe this can be explained in terms of learners' educational and cultural differences. Students who are accustomed to traditional methods of teacher-centered language teaching may not be used to doing group-work projects and therefore may not feel comfortable with such activities (Petersen & Nassaji, 2016, p. 29). They recommended that teachers explicitly explain the goal, the skills developed, and the resources available for doing the project (Petersen & Nassaji, 2016, p. 30).

In an interesting, albeit discouraging, study of three categories of teachers' perceptions toward project-based-learning, PBL is among the favored methods in all three groups—1) elementary school teachers, (2) middle school teachers and (3) high school teachers. Yet it is not the most frequently implemented at any level. The researchers believe the results are connected to risk-aversion and teachers' perceived role. First, teachers tend to avoid risks associated with changing their teaching practices. "They prefer teacher-centered education because they strive to maintain control. Taking on the role of facilitator requires great effort because they often assume that this role entails losing control over classroom activity" (Habók & Nagy, 2016). Their results further show that secondary school teachers mostly use teacher-centered instruction and do not make use of the availability of Information and Communication Technologies (ICT) tools in PBL. In their research' conclusion, Habók & Nagy (2016), state that "the data suggest that teachers mostly perceive their own roles as motivating, shaping personality and transmitting values. In PBL, controlling students is mostly considered important among beginner teachers. In conclusion, the results suggest that teachers still strive to play a leading role in the classroom (Habók & Nagy, 2016).

Significance of the Current Study to Literature and Practice

Today's learners need a different set of skills that include technology literacy skills, critical thinking skills, and life skills. Because of pressures of time and the demands of job and family for adult learners, these skills are more crucial to learn as efficiently as possible. The research shows that PBL can challenge students on an individual level, meeting unique needs and interests. While a few studies examine the impact of project-based learning on adult second language learners and the perception of teachers who have implemented PBL in their adult language classrooms, I could not find studies on project-based learning in the context of a

workforce literacy site. These are the critical questions: To what extent does the professional development training incorporate Malcolm Knowles' six principles of andragogy? Furthermore, how do teachers self-report that they are applying skills and techniques taught in the project-based learning workshop? Finally, what challenges and successes do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms? Will teachers in this workforce literacy environment adopt the advantages of project-based learning after one-day training? Or will barriers – training conditions, time constraints, lack of support, teaching environment, student attitude – prevent teachers from even attempting project-based learning?

Chapter 3: Methods

The research questions are outlined in chapter one. This chapter presents my rationale for choosing a mixed methods research design for this study. Following that is a description of the participants, the instruments developed for the study, and the procedures used to conduct the research and analyze the data.

Selection of the Research Design Mixed Methods Approach

To answer the research questions, this research project used a sequential explanatory mixed methods design. Mixed methods studies combine both quantitative and qualitative research methods. This allows the researcher to capitalize on the strengths of each method to improve the credibility of the study and bring together a more complete and comprehensive explanation of the research questions (Bryman, 2006). For this study, the quantitative methods involved administering a survey to gather baseline data on how teachers perceived the training. The qualitative methods include data from a focus group, observation, and interviews.

Quantitative Methods

This rationale for a mixed methods approach supports expanding the quantitative results by further allowing teachers to reflect on why they could or could not implement the professional development training in their teaching environment. The survey was constructed to address the first research question in particular: To what extent does the professional development training incorporate Malcolm Knowles' six principles of andragogy: a) self-concept, b) experience, c) readiness to learn depends on need, d) problem centered focus, e) internal motivation, and f) relevance. Questions were designed that directly tied to each of Knowles' principles of andragogy and included questions on whether participants understood the purpose of the training, relevance, problem centered vs. theory centered, and the usefulness of key components.

Based on literature from research of other teacher training program evaluations, a question on perceptions of support from the administration was also included (Guskey, 2002). The questions' design was also based on the Teacher Professional Development Evaluation Guide, from the National Staff Development Council. (Haslam, 2010).

Quantitative Data Analysis

I analyzed the questionnaire results using descriptive statistics. Because of the small sample size ($n = 8$), I used raw data and chose not to use a statistical analysis program, such as SPSS.

Qualitative Paradigm

Qualitative findings are used to refine, explain, or elaborate on the quantitative results. Research on this project called for interaction between the researcher and the adults who are undergoing a professional development training, who are teaching in the workforce literacy field. It was crucial that I, the researcher, establish respectful and trusting rapport between all parties. The relationship must exist knowing that the knowledge uncovered is contextual. I needed to be respectful of varying viewpoints and the subjective opinions of the participants.

Qualitative Research Design

Because I wanted to understand an event that occurs to a group at a point of time, I included qualitative methods to reflect on what research participants meant by their answers and to provide a more engaging research experience. Thus, I used a case study approach. In a case study, I could include the background of the Literacy Council program and showed to what extent a given intervention (namely, a professional development training on project-based learning) was implemented. The case study format also provides a summary and conclusion, allowing others to learn from the results.

Instruments

In qualitative research, the main instrument is the researcher. I, the researcher, observed the training, took notes, designed the interview and focus group protocols, and conducted the focus group and interviews. According to Creswell (2009), a good interviewer needs the following skills: Technical competence, interactive competence: attention and steering, competencies in communication theory and knowing how to deal with previous knowledge and personal bias.

Qualitative Data Analysis

I recorded and transcribed 1) the focus group session with nine participants 2) the interview with a teacher and 3) the interview with the trainer and 4) program director. I coded the responses using open-coding as part of grounded theory as the research paradigm to find patterns and themes that emerged from the textual data. In the initial analysis, I used open coding to examine, compare, and categorize data. Open coding involves labeling as many relevant categories as possible. Selective coding follows this process, which involves integrating the categories to form a theory.

Research Procedures

The work force literacy teachers at the Literacy Council were invited to a professional development training on February 9, 2018, facilitated by one of the instructors in the program. Directly after the training, the teachers received a questionnaire about their opinions on the training and asked to rate the likelihood of implementing project-based learning. Two weeks after the initial training, I conducted a focus group. Based on the training and focus group, I interviewed a teacher who seemed most likely to implement the project-based learning in her

teaching environment. With her permission, I also observed the class to see if they are able to successfully incorporate project-based learning into the curriculum.

Table 2: Date collection.

Date	Event or Activity	Comments
9/10/2017	Received approval from thesis advisor	
10/5/2017	Met with LC Exec. Director	
11/7/2017	Received letter of support from LC	
2/1/2018	Notified Participants via LC	
2/9/2018	Professional Development Training	At LC
2/21/2018	Focus Group	At LC
2/27/2018	Interview with teacher and teaching observations	At workforce literacy location
3/1/2018	Interview with PD trainer	At LC
3/15/2018	Interview with program director	At LC

Participants

There were nine female participants in the study, eight teachers and one supervisor, who attended the professional development training on February 9, 2018 at the Literacy Council. The participants also received lunch and snacks. Five of the participants were White, one was from Iran, one from South Korean, and one of Hispanic origin. Each received a stipend of \$75.00, prorated at \$15.00/hour, and the professional development trainer received \$175.00 compensation.

Procedure

The professional development training occurred in a classroom environment that was reasonably distraction-free. On arrival, the participants completed consent forms and were reminded that they could withdraw from the study at any time. They also signed photography consent forms. Participants received instructions orally and in writing. At the end of the training, participants completed a survey with nine multiple choice or closed questions and one open-ended question. One participant left at noon and did not complete a survey.

Ethical Considerations

Participants agreed to, and signed a form indicating, informed consent. Participants were advised of their rights to privacy and that there were no adverse consequences from withdrawing from the research study.

Plans for Presenting the Results

The case study will be presented to a thesis committee at the University of Arkansas. The research will be shared with the Literacy Council and presented at the 2018 ARKTESOL (Arkansas Teachers of English to Speakers of Other Languages) conference.

Summary

The purpose of this chapter was to provide a rationale for the methodology of this study and detail the data collection methods and instruments used. It also identified and described the participants and the mixed methods data analysis process.

Chapter 4: Quantitative Findings

The participants (n = 8) who took the survey were comprised of four AmeriCorps teachers, the LC program director, and three teachers who work at the workforce literacy program at the two chicken processing plants in Arkansas. One participant left the training at noon because of prior commitments and did not fill out a survey. Because she did not complete the training, I did not follow-up with her for observations or an interview. The remaining teachers all answered a nine-point survey after the professional development training on February 9, 2018. Six of the eight wrote additional brief comments at the end of the survey.

Results

On the survey, participants first indicated they understood the purpose of the professional development in the first survey question.

Question 1: **Understanding the purpose of the professional development.** Which of the following statements best describes the primary purpose of the training at the Literacy Council on February 23?

The purpose of the professional development was: (You may select multiple responses).

- A. To communicate new ideas for me to consider using in my teaching environment.
- B. To provide an opportunity for me to learn from other teachers.
- C. To help me understand project-based learning.
- D. To help me apply/implement project-based learning in my teaching environment.
- E. Not clear.
- F. Other

Table 3: Understanding the purpose of the professional development.

Options	N	%
To help me apply/implement project-based learning in my teaching environment.	6	75%
To communicate new ideas for me to consider using in my teaching environment.	5	62.5%
To help me understand project-based learning.	5	62.5%
To provide an opportunity for me to learn from other teachers.	3	37.5%
Not clear.	0	0%
Other	0	0%

Question 2: Rating the usefulness of key components of the professional development. Which of the following statements best describes the usefulness of the training at the Literacy Council?

- A. It was a good start.
- B. It was a good start, but I have lots of questions.
- C. It was a good start, and I look forward to using the new ideas in my teaching environment.
- D. It provided everything I need to use the new ideas in my teaching environment.
- E. I don't think that these ideas will work well in my teaching environment.
- F. It's too soon to tell.

When rating the usefulness of key components of the professional development, 75% (6) said it was a good start or "It was a good start, and I look forward to using the new ideas in my teaching environment. 25% (2) said the training provided everything they need to use the new ideas in their teaching environment. Seven of the eight participants (87.5%) said that the professional development addressed some of their professional learning needs. One person said it address her professional learning needs completely.

Which of the following statements best describes the usefulness of the training at Ozark Literacy Council?

8 responses

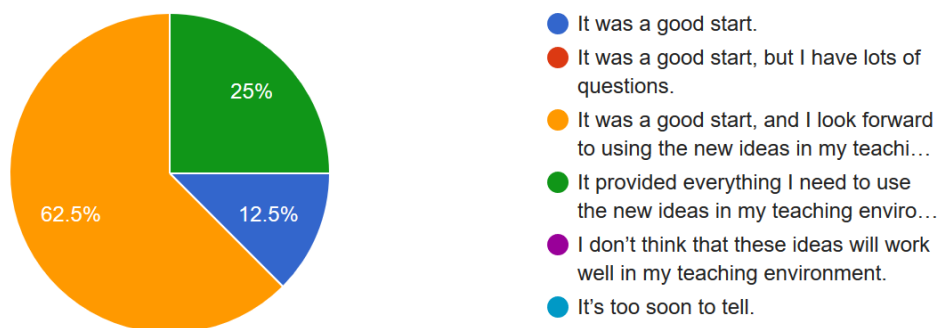


Figure 1: Rating the usefulness of key components of the professional development.

Question 3: Perceptions of the extent to which the professional development met participants' needs. Indicate the extent to which the training at the Literacy Council met your professional learning needs.

- A. It addressed my professional learning needs completely.
- B. It addressed some of my professional learning needs.
- C. It did not address my professional learning needs.
- D. This professional development did not help much because I was already familiar with the topic.

Indicate the extent to which the training at Ozark Literacy Council met your professional learning needs.

8 responses

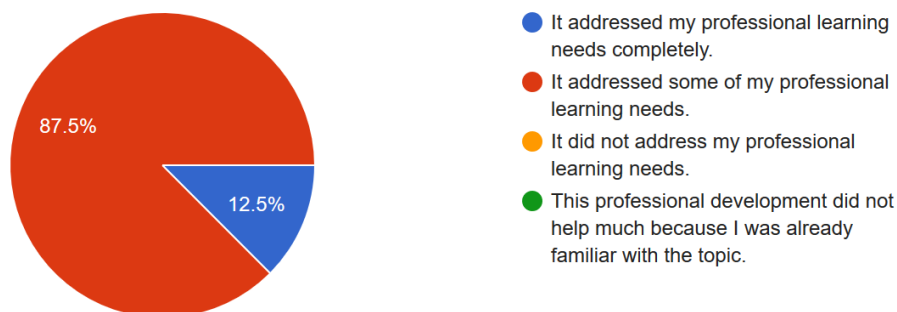


Figure 2: Perceptions of the extent to which the professional development met participants' needs.

Question 4: **Perceptions of support and encouragement to participate in professional development.** Which of the following statement best describes the support you received from the LC leadership to participate in this professional development?

- A. The leadership strongly encouraged me to participate.
- B. The leadership encouraged me to participate.
- C. The leadership tried to discourage me from participating.
- D. I did not discuss the professional development with leadership prior to participating.

Which of the following statement best describes the support you received from OLC leadership to participate in this professional development?

8 responses

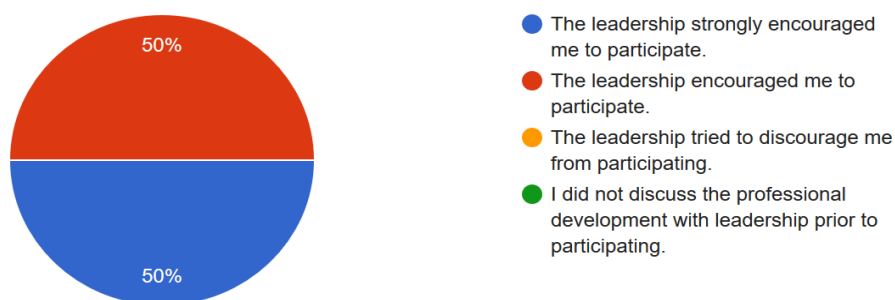


Figure 3: Perceptions of support and encouragement to participate in professional development.

All eight participants said that the leadership either strongly encouraged or encouraged them to participate. Everyone also indicated that the leadership at the LC will encourage them to apply their new knowledge and skills.

Question 5: **Perceptions of support and encouragement to apply new knowledge and skills.** Which of the following statements best describes the support you received from the LC leadership to apply what you learned in your teaching environment?

- A. The leadership has encouraged me to apply what I learned and offered to help.
- B. The leadership has encouraged me to apply what I learned.
- C. The leadership has not encouraged me to apply what I learned.
- D. I have not discussed what I learned with leadership.

Which of the following statements best describes the support you received from OLC leadership to apply what you learned in your teaching environment?

8 responses

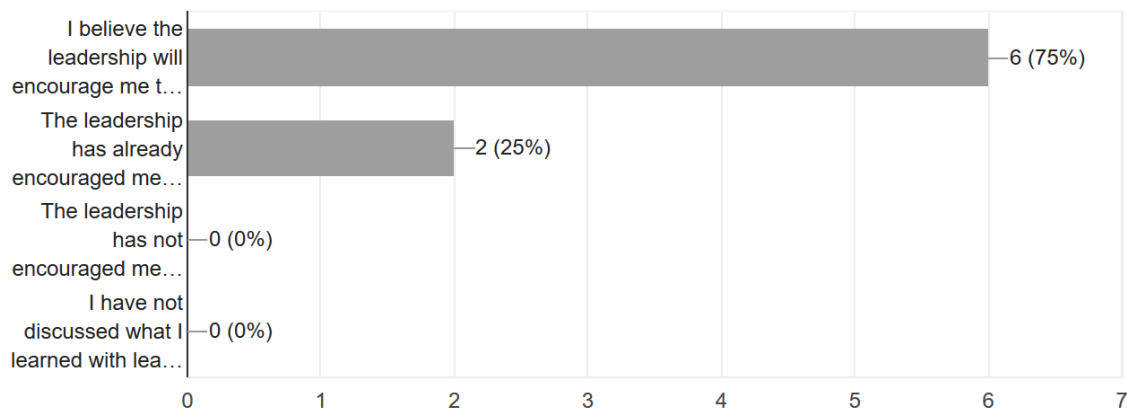


Figure 4: Perceptions of support and encouragement to apply new knowledge and skills.

Question 6: Ratings of the likelihood of applying new knowledge and skills in the classroom. Which of the following statement best describes the likelihood that you will apply what you learned in the Literacy Council professional development in your teaching environment?

- A. I have already practiced project-based learning with my students, and it seemed to work well.
- B. I have already practiced project-based learning with my students.
- C. I have already practiced project-based learning with my students, but it was not appropriate for my students.
- D. I look forward to practicing project-based learning with my students in the next few weeks.
- E. I look forward to practicing project-based learning sometime later this year.

F. I would like to practice project-based learning, but I don't have the materials that I need.

G. I don't think that these things will work well with my students.

Which of the following statement best describes the likelihood that you will apply what you learned in the Ozark Literacy Council professional development in your teaching environment?

8 responses

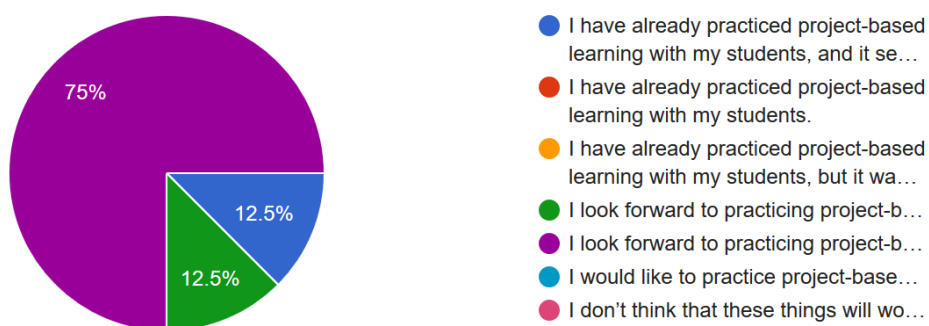


Figure 5: Ratings of the likelihood of applying new knowledge and skills in the classroom.

In terms of rating the likelihood of applying new knowledge and skills in the classroom, 75% said they look forward to practicing project-based learning sometime later this year. One person said she already has implemented PBL. Another participant said she plans to implement PBL in a few weeks.

Question 7: **Connecting content of professional development to principles of adult learning.** Which of the following statements apply to the professional development training at the Literacy Council? (You can choose multiple entries).

- I was involved in the planning of the instruction.
- I was involved/will be involved in the assessment of the instruction.
- My experiences provided a basis for the learning activities.

- D. The content was relevant to my job.
- E. The content was problem-centered rather than theory-oriented.
- F. I know why the content is important.
- G. I felt respected by the trainer.
- H. I felt respected by the other learners.

Table 4: Connecting content of professional development to principles of adult learning.

Which of the following statements apply to the professional development training at the Literacy Council?

Options	N	%
To help me apply/implement project-based learning in my teaching environment.	6	75%
I felt respected by the trainer.	5	62.5%
I know why the content is important.	5	62.5%
My experiences provided a basis for the learning activities.	5	62.5%
I felt respected by the other learners.	5	62.5%
The content was problem-centered rather than theory-oriented.	3	37.5%
I was involved/will be involved in the assessment of the instruction.	1	12.5%
I was involved in the planning of the instruction.	0	0%

Question 8: Connecting physical environment of the professional development training to principles of effective learning. Which of the following statements apply to the professional development training at the Literacy Council? (You can choose multiple entries).

- A. The training environment was welcoming and supportive.
- B. The room size was comfortable.
- C. The temperature of the training environment was comfortable.
- D. I could hear the presenter clearly.

Connecting physical environment of the professional development training is a key component of the principles of effective learning. All the participants said the training environment was welcoming and supportive. Six out of eight of the participants said the room size was comfortable, the temperature of the training environment was comfortable, and they could hear the presenter clearly. On this question the participants could mark multiple answers, two people circled only one answer. Based on the other six participants' responses, it's worth noting the possibility of misunderstanding of the question.

Which of the following statements apply to the professional development training at Ozark Literacy Council? (You can choose multiple entries).

8 responses

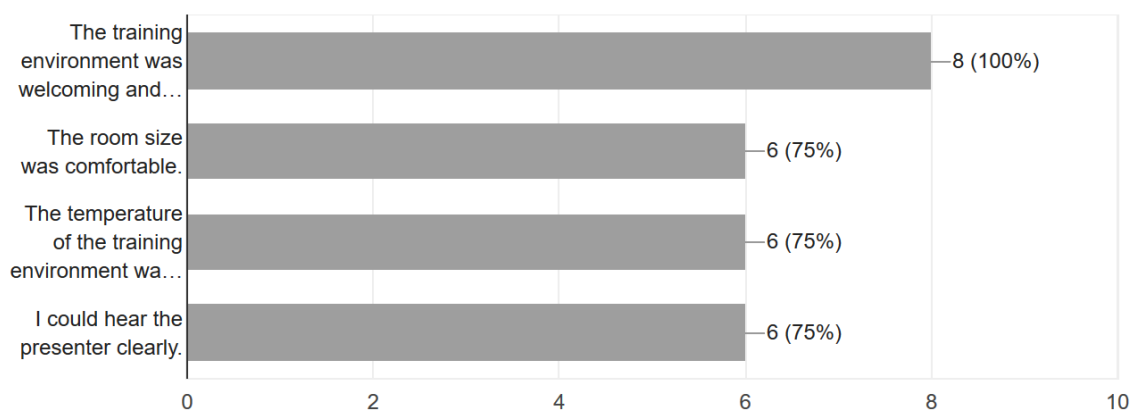


Figure 6: Connecting physical environment of the professional development training to principles of effective learning.

Question 9: Overall ratings of the usefulness of the professional development compared with other professional development. Which of the following statements best describes how the professional development compares with other professional development in which you have participated during the past year?

- A. This professional development was more useful than other professional development that I have participated in.
- B. This professional development was about the same as other professional development that I have participated in.
- C. This professional development was less useful than other professional development that I have participated in.
- D. I don't have an opinion.
- E. I don't have an any opinion because I haven't participated in any other professional development in the last six months.

The penultimate question asked participants to compare the professional development with previous professional development they experienced in the past year. Three participants said they haven't participated in any other professional development in the last six months. The other participants said the training was more useful than other professional development that they have participated in (4) or the same as other professional development they have participated in (1).

Finally, participants had an opportunity to state any additional comments about the training. Overall, the final comments, written by six out of eight participants, indicated a positive perception of the training.

Table 5: Perceptions Towards Professional Development Training

The professional development exceeded my expectations. Prior to the training, I questioned how I would implement this knowledge in my classroom, but after completing the training, I can see clear applications of my new knowledge.
 I really enjoyed the training and the hands-on group dynamic. I am leaving with ideas and resources to implement PBL.
 Although I do not think I can use this immediately, I would like to develop further classes with this in mind.
 I found it very useful!
 Very organized training!
 I really enjoyed this! I'm looking forward to use what I learned in the future. I'm excited!

Summary

This chapter reports the findings of the quantitative portion of the research study: a nine-point survey taken by eight participants of the training on February 9, 2018. Further analysis and recommendations are shared in Chapter 7.

Chapter 5: Qualitative Research Procedures

The conceptual design for the case study: Grounded Theory

The qualitative part of the study includes data from observations, interviews and a focus group. It supports and expands the quantitative results by further exploring the opinions and experience of teachers as they considered implementing project-based learning in their teaching environment. Figure 7 illustrates the qualitative conceptual research design.

To analyze the data, I chose to use grounded theory as the research paradigm. A grounded theory may use qualitative data, quantitative data, or a mixed methods approach. In grounded theory, the researcher uses triangulation to analyze the data, as the researcher can be more confident if various methods lead to the same result (Scott, 2009).

Coding the Data

Open coding data is a main feature of grounded theory. Open coding means coding “everything for everything” (Scott, 2009). Ultimately, key themes

emerge, and the researcher can uncover the core category that explains the behavior in the research focus area. The researcher writes memos throughout the process to help uncover patterns. In this deconstruction stage, the researcher repeatedly reads interview and focus group

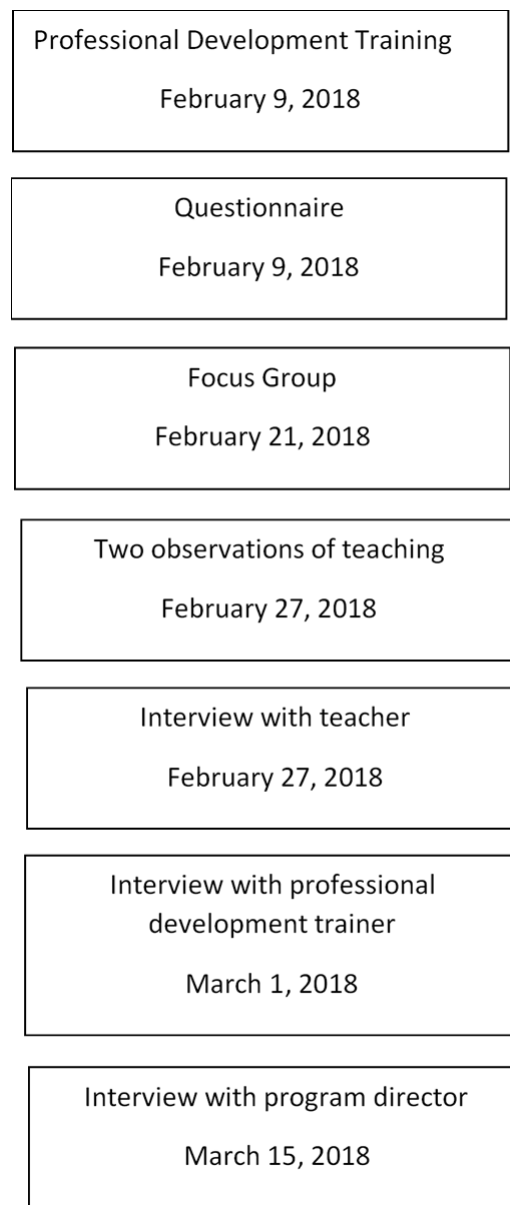


Figure 7: The Conceptual Design for the Case Study

transcripts to break down data into categories or “codes.” Once the core category is selected, the data (interview transcripts and observation notes) are reanalyzed for themes in the selective coding process. In this interpretation stage, the researcher compares data codes within and across transcripts and notes and explores relationships among themes, including negatives results that don’t confirm themes. Ultimately, in the reconstruction stage, the researcher presents the codes and contextualizes them according to existing theoretical perspectives and practice (Sargeant, 2012).

Researcher’s Role and Interests

It should be noted again that I am not only a researcher, but also a volunteer, and I have volunteered with the Literacy Council as a volunteer teacher at their center and at the work force literacy plants. The professional development trainer, is also a M.ED. TESOL student at the University of Arkansas in addition to a teacher at the Literacy Council. Through discussing our research interests, we discovered an opportunity to collaborate on this project. The PD trainer is researching project-based learning, and I am interested in the effects of professional development training on teacher practice. While being close to the project motivates my desire to undertake this research, I am aware of the possibility of bias in interpreting the results. However, being aware of the potential for bias has helped me stay focused on what the data reveal and I have been careful not to interpret the data in any preconceived ways.

Settings

Training Setting. The professional development training was held at the Literacy Council’s conference room. The room had a projector and an ample number of tables and chairs. Because the LC does not have classes on Fridays, the training was the only event occurring at the center, ensuring privacy and quietness.

Workforce Literacy Settings. The workforce literacy observations were conducted at two chicken factory plants in Arkansas. In both locations, a cafeteria is used for a classroom. The room is filled with employees changing shifts and eating lunch. Televisions are on in the background (field notes, February 27, 2018).

Participant Selection for the Study

In qualitative research, participants are selected who can best inform the research questions and enhance understanding of the phenomenon under study (Sargeant, 2012). Moreover, purposeful sampling is generally used in case study research. One of the limitations of the study is the small sample size. The LC has a small staff, and even fewer teachers teach at the workforce literacy sites. All the Literacy Council teachers—both workforce literacy and AmeriCorps teachers—were invited to participate in the training. Of the nine participants in the training, only three also worked at the workforce literacy sites. Two of the three participants who work at the workforce literacy sites agreed that I could observe their teaching environment and interview them.

Interviews

For this research project, I interviewed three people: the trainer for the professional development on project-based learning; a teacher at a workforce literacy site; and the program director at the Literacy Council. The interviews were held at the subject's place of work, either in the program director's office or the workforce literacy site. The interview's protocol explored the research questions in more depth and allowed the teachers to talk about the opportunities and challenges they faced in implementing the training on PBL. The interviews' and focus group's protocol can be found in Appendix A-B. I taped the interviews on an audio recorder and transcribed the notes in full.

Focus Group

The focus group of nine participants was held at the LC's training room. The focus group's protocol explored the research questions in more depth and allowed the teachers to talk about the opportunities and challenges they faced in implementing the training on PBL. The focus group's protocol can be found in Appendix C. I taped the focus group on an audio recorder and transcribed the notes the day following the focus group.

Validity and Reliability

Creswell (2009) suggests several strategies for increasing the validity and reliability of the findings and ensuring their accuracy and credibility. One is using a variety of data sources to triangulate or corroborate evidence from several sources. In this study, I used both quantitative and qualitative survey items and focus group interviews to gather data and explore the research questions. I enlisted the help of a colleague outside of this project who was familiar with the training to check the study design and data analysis and give feedback about whether my findings and conclusions were grounded in the data. She participated in the focus group interviews and reviewed my coding of the qualitative data.

Summary

The purpose of this chapter was to provide a rationale for the methodology of this mixed methods study and detail the data collection methods and instruments used. It also identified and described the participants and the data analysis process. Because generalization to populations is not appropriate in most of case studies, a small sample size is noted, but is not considered problematic.

Chapter 6: Qualitative Findings

Analysis of the Professional Development Training

The training was held at the Literacy Council on February 9, 2018. During the training, I video-taped the session and noted observations in a research journal during and directly following the training. I also evaluated the training with a professional development rubric, adapted from an evaluation tool from the Center for Educational Leadership, which can be found in Appendix E (Leading for Effective Teaching Rubric, 2012). As the researcher and non-participant observer of the training, my goal was to investigate if the training answered the first research question: To what extent does the professional development training incorporate Malcolm Knowles' six principles of andragogy?

1. self-concept,
2. experience,
3. readiness to learn depends on need,
4. problem centered focus,
5. internal motivation, and
6. relevance.

1. Adult learners have a mature self-concept.

Knowles believed that adult learners thrive in collaborative relationships with their teachers. Learners become more productive when they're considered to be colleagues by their instructors. When their contributions are acknowledged, then they are willing to put out their best work. Furthermore, because adults are at a mature developmental stage, they have a more secure self-concept than children. This allows them to take part in directing their own learning.

First of all, the training was led by the participants' colleague. Research on effective teacher professional development programs shows that trainings should be peer-led by respected colleagues (Hayes, 2011). "Teachers evaluate sources of knowledge not only by their perceived competence, but also by their perceived understanding of and respect for the role of teachers as professional actors in the school system (Wermke, 2010). Although some of the participants had not met before this training, they spent nearly an hour on ice-breaker activities and introductions. I observed that they developed an ease in the training environment, evidenced in their participation in the trainer-trainee dialogue and their collaboration with each other. I noted all the participants seemed increasingly comfortable and even eager to talk as the training continued. The trainer used Socratic dialogue and small group discussions to make the training more self-directed and engaging.

2. Adults bring life experiences and knowledge to learning experiences.

The learning process is about experience. Educators encourage learners to connect past experiences with knowledge and activities. An effective trainer knows how to relate learners' experience to the current learning material. This training had a very specific purpose: introduce project-based-learning to teachers of adults at the Literacy Council and workforce literacy sites. The trainer encouraged learners to apply their knowledge of teaching their students in their unique environments to the application. The trainer's examples included content specific to the teachers' classrooms. After the learners discussed the definition and components of PBL, the trainer asked them to "Set the Scene." The learners were asked to imagine the following: You teach ESL to plant workers in a local chicken processing factory.

Level – Upper Beginner to Intermediate

Classroom – the main plant break room

Time- 5am to 6:30am

Students- 8 students, mostly Hispanic

Tools & Materials – small white board, markers

The trainer then handed out brief “biographies” of students that she had compiled using a mixture of data from real students in the program. In small groups, learners discussed how implementing PBL with these specific learners would create unique challenges.

For example:

Maria G. is from Mexico. She is an upper beginner in all language skills. She’s doesn’t always respond well in class. She sometimes grudgingly participates and does not respond well to error correction. She is a dedicated student and attends class at every opportunity and she has a good rapport with her fellow Spanish-language classmates.

While learners responded enthusiastically to the role-play, the trainer missed an opportunity for them to expand further on their previous knowledge. At the beginning of the training, learners were asked to answer the prompt “Share your experiences, ideas and prior knowledge about project-based learning.” Perhaps because this question was at the beginning of the presentation, when learners were not as familiar with each other or the concepts of PBL, learners didn’t seem inclined to speak up. Besides this question, the trainer did not draw upon learner’s experiences outside the classroom, either from previous work experiences or from hearsay examples. When one learner said that she had managed a project-based learning project at a former job, she was not asked to elaborate.

3. Adults are goal-oriented.

Adult education is about goals. Adult learners aim to acquire relevant and adequate knowledge and for this reason intended learning outcomes should be clearly identified. Educators should align the learning activities such that these objectives are fulfilled within a certain period. According to the professional development rubric, “PD facilitator explicitly communicates expected outcomes, and shares evidence of meeting outcomes by end of PD” (Leading for Effective Teaching Rubric, 2012). While the professional development was

interactive and organized, the trainer did not state explicit goals or learning objectives for the training, nor expected outcomes for learners to implement post-training. The learners also didn't create goals for themselves on how to use the training in their teaching environment. Only one person indicated on the survey that she expects to be involved in the assessment of the training.

4. Adults are problem-centered (as opposed to theory-centered).

It is very important for educators to identify appropriate ways and convert theoretical learning to practical activities. Only three of the eight participants said the content was problem-centered rather than theory-oriented. The first half of the training was heavily theory-oriented, and the remainder of the training was practical. In the second half of the training, learners collaborated in groups to solve challenges related to the content. The participants were encouraged to provide constructive feedback to one another and engaged in reflective dialogue. While the second half was in line with a feature of the rubric: PD facilitator encourages participants to self-assess areas of strength and need relative to PD content. The training did not include time for participants to “reflect upon the connection between PD content and personal professional growth goals” (Leading for Effective Teaching Rubric, 2012).

5. Adults are internally motivated and self-directed.

Adult learning should be self-directed. Adult learners need to be given the freedom to assume responsibility for their own choices. In line with research that effective PD training should not be mandatory, the professional development training was optional for the teachers. All the teachers who were invited, attended the training, indicative of internal motivation. Ideally, within the training, “The students themselves play [a role] in the initial choice of subject matter and in the decisions related to appropriate working methods, the project timetable and the eventual ‘product’” (Thomas, 2000 p. 1). As supported by the survey results, learners were not

involved in the planning of the content nor did they have direct influence over the content during the training. However, as noted earlier, the trainer used Socratic questioning and small group discussions to allow learners to guide their learning, which allows some opportunity for autonomy.

6. Adults are relevancy oriented.

Professional development design should focus on developing relevance. Adult learners benefit by relating the assigned tasks to their own learning goals. If the activities they are engaged in directly contribute to achieving their personal learning objectives, then they will be inspired and motivated to engage in projects and successfully complete them. The training was relevant to the learners. Because they have freedom in how to implement the curriculum guidelines, they all could choose to apply PBL to their teaching environments. The trainer also linked the content to 21st century skills, emphasizing that PBL helps develop collaboration, critical thinking, creativity, and innovation.

Summary of Observation of PD Training

The PD training had several elements of effective training. It was voluntary, peer-led, curriculum-centered, collaborative, incorporated role-play, relevant, and attended by the program director. However, the training missed critical elements in both andragogy and standards-based PD. It did not include the following best practices in Knowles' adult-learning strategies: learner involvement in PD design or learner assessment. The training also did not meet standards for follow-up support. The participants did not collaborate to create actionable steps or action plans to define next steps for implementation, reflect on the connection between PD content and personal professional growth goals, nor discuss expectations for ongoing institutional support and assessment of progress (Leading for Effective Teaching Rubric, 2012).

Analysis of the Focus Group

Data from the focus group with training participants built on the training and expanded the survey results by further exploring the perceptions of teachers as they considered implementing PBL. The purposes of this study were to answer the sub-questions:

2) How do teachers self-report that they are applying skills and techniques taught in the project-based learning workshop?

3) What challenges do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?

4) What successes do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?

Applying Skills and Techniques as Reported in the Focus Group

None of the teachers were able to immediately implement project-based learning in their classroom. However, most of the teachers expressed interest, and even enthusiasm, about PBL.

In the focus group, one teacher said:

We broke into small groups [in the professional development] and brainstormed ideas in a group about project-based learning. The group I was in talked about doing a newsletter and perhaps using that to profile the class in general, and to showcase this class at [name of workplace]. Within the newsletter, we might profile individual students. We even talked about sharing recipes and really make it personal to them. We even took it so far as to start a mini free food pantry to address the hunger needs in that community. I don't know if my class could start a project that robust. But I think it's feasible. I've started planting the seed with my class about starting a newsletter (Focus Group, February 21, 2018).

Two additional teachers mentioned creating a newsletter with their class soon. All the teachers seemed to have a positive impression of PBL. One teacher said, "We're talking about vegetables right now in the book. With them, we could bring seeds and plant the seeds in a small

cup. The learning is not taking away from the syllabus, it's just part of it." (Focus Group, February 21, 2018).

Other teachers have plans to implement PBL in the future:

I'm really considering integrating PBL next term in March. Just to try to experiment with it and see how it goes. I have a lot of different types of people in my classroom and also I feel like it could go really well. I have no idea what kind of project we would do, but I guess that's kind of up to my students, right? But I just kind of want to see how it goes with them, maybe next term. We're going to work it into my syllabus (Focus Group, February 21, 2018).

The teachers understood the benefits of the new skills, and several expressed interest in incorporating PBL into their teaching. However, none of the teachers had immediately adopted PBL in their classroom. This lends support to the adult learning theory model stating that professional development must be in line with teachers' career development. While the training highlighted beneficial instructional skills to employ in the classroom, specific conditions may not have been met to implement the instructional practice. Furthermore, none of the teachers were involved in the design or assessment of the training. Their involvement may increase likelihood of implementation.

Challenges

Teachers' Perceptions of Student Hesitancy about PBL

Several teachers and LC's program director expressed doubt that students would accept this method.

But realistically, even if all teachers want to do [PBL] how do we educate the students about the best way to learn? Even with our advanced class, they are reluctant to do it. We were trying to put together a cooking class, and students didn't attend very much. Our teachers are wonderful. They have a great skillset and their lesson plans are three pages long. It's not about their skill, but the students come to my class and say, 'I want to learn about reading and writing. I don't want to learn about cooking. I want more vocabulary and grammar.' (Focus Group, February 21, 2018).

Another teacher said she believed fear was the reason for student's reluctance.

I already shared the whole idea of PBL [with my class]. Some of them were scared, and said, ‘No, we can’t do that.’ But even though some of them showed some interest, I guess they’re not ready yet” (Focus Group, February 21, 2018).

The program director stated the need for explicit teaching, “We need to teach students about this learning style. A lot of students—especially students from Asian countries—are accustomed to one-way teaching.” (Focus Group, February 21, 2018).

Another teacher expressed concern about age, but seemed more optimistic about overcoming this challenge:

That [reluctance] comes from our generation, and the old version of teaching and learning. PBL is a new way of learning. Maybe we need to talk with the students and share new methods. It’s all about adjustment and trust. (Focus Group, February 21, 2018).

While the teachers were familiar with the basics of PBL approach, their lack of skills and knowledge in managing it caused them difficulties during their implementation process. This supports the research noted in the literature review that teacher acceptance is crucial to implementation (Baysura, et al., 2016; Wurdinger, et al., 2007). Furthermore, research shows that students who are accustomed to traditional methods of teacher-centered language teaching may not feel comfortable with group-work at first (Petersen & Nassaji, 2016, p. 29). To help ease students’ reluctance to try PBL, Petersen and Nassaji (2017) recommended that teachers explicitly explain the goal, the skills developed, and the resources available for doing the project.

Student Attendance as a Barrier

Teachers noted the challenge of inconsistent student attendance. One teacher described previous attempts at experimenting with instruction: “I’ve tried to divide the class into sections where we focus on speaking and then writing, but when people arrive late or early then they miss an entire section (Focus Group, February 21, 2018).” Another teacher said, “My students’ attendance changes every class. I don’t have any consistency (Focus Group, February 21, 2018).

The trainer was able to respond to this concern in the focus group.

What I would do is rather than creating stringent student roles, is I would focus on the project goals. Don't assign specific students to roles but keep it flexible. Whatever student is there can take up a role and accomplish project goals. I know it works that way in theory and can be more challenging in real life. (Focus Group, February 21, 2018).

Analysis: The teachers' concern about attendance is valid. Adult literacy programs are characterized by high attrition rates and absenteeism in workforce and community-based education is a real and pervasive challenge (Greenberg, Wise, Frijters, Morris, Fredrick, Rodrigo, & Hall, 2013). Ironically, recent research shows that PBL can improve student attendance. As students' interest in a relevant and meaningful project increases, so does their engagement (Creghan & Creghan, 2015). However, the training did not include information about this potential benefit of PBL.

Analysis of the Interviews

Data from the interviews with two teachers and the program director built on the training, the survey results, and the focus group by further exploring the perceptions of teachers as they considered implementing PBL. The purposes of this aspect of the study were also to answer the sub-questions:

2) How do teachers self-report that they are applying skills and techniques taught in the project-based learning workshop?

3) What challenges do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?

4) What successes do teachers express who participated in the workshop faced in implementing the training on project-based learning in their classrooms?

Applying Skills and Techniques as Reported in the Interviews

As stated previously, none of the teachers were able to immediately implement project-based learning in their classroom. Yet similarly to the focus group, the teacher interviewed expressed interest in incorporating PBL.

I'd definitely like to do a project...I would definitely like to try with my GED class. We were about to do the English portion. I had an awesome idea. I was going to give them several examples. Like a packet of like how to for advice for your job at [name of workplace]: If someone were to take over your job what would you tell them on how to survive for their specific position. It would give them a lot of writing practice. (Interview # 2, February 27, 2018).

Analysis: While this teacher's quote demonstrates awareness of the benefits of PBL and even enthusiasm, she did not have a concrete plan to implement PBL in her classroom in the time between the training and the interview. This hesitation to try a new technique is supported by research. As mentioned in chapter two, Pontz (2003) highlights specific conditions that education for adults needs to meet: clarity of goals, adequate levels of challenge, capitalization on previous knowledge, sustainability, organizational support, and alignment of achievement with the goals set.

Challenges

Workforce Setting

Teaching in a factory setting has many challenges (field notes, February 27, 2018). The classes meet in a small breakroom or in the main cafeteria. The students do not receive compensation or paid leave for attending classes. The teachers have a general outline of topics to cover from the Arkansas State curriculum for adult education, but teachers have freedom to choose topics and adapt materials, with the program director's approval (Interview #3, March 15, 2018). Currently, the teachers use paper handouts and a whiteboard to teach (field notes, February 27, 2018). An instructor with the program spoke about the multiple instructional challenges:

The biggest challenge is not being in a traditional classroom setting. Everything stems from that. Even if we had all the money in the world, we have no place to put a projector because we're teaching in a cafeteria. Aside from a small corner in a hallway, we don't have a storage place for materials. The noise and disruption from the televisions in the cafeteria impact our teaching. People are constantly moving in and out of the breakroom. Students also come and go to the class depending on their shift schedule. Students might arrive at 6:00, 6:10, 6:20, and the first may need to leave at 6:40, and so on. The students' levels range from illiteracy in their first language to intermediate in English. The hours are also a huge challenge. The students work an eight-hour shift with a 20-minute lunch break and minimal bathroom breaks. The students are either coming to work before or after their shift, and they come to the class physically tired. (Interview #1, March 1, 2018).

The rotating schedule is a challenge as well as the short-notice of schedule changes. The teachers' class schedule is not consistent as the work schedule depends on chicken growth. "If the chickens don't grow fast enough, management will shift the schedule. "Night shift usually starts at 9 PM so my classes go until 8:45 so they can get their gear. But sometimes they have too many workers, so employees are sent home or classes start an hour later" (Interview # 2, February 27, 2018). The teachers at the workforce literacy sites often don't receive their schedule until Monday morning, even though they may teach on Monday evening. "I plan for four days, but I often only work three days" (Interview # 2, February 27, 2018).

Analysis: Challenges that are unique to workforce literacy are legitimately difficult to overcome. Research shows that not only workforce literacy ESL teachers, but many ESL educators for adults have struggled to move beyond skills-based instruction to implement more student-centered andragogy that "prepares students to become active citizens and to solve real-world problems" (Carlock, 2016). Barriers within the workforce setting cannot be overcome by the teacher alone. Collaboration needs to occur among the teachers, students, program director at the literacy center and program director at the workforce site to communicate resource and scheduling needs.

Perception of Age as a Barrier

The program director of the LC particularly emphasized age as a barrier to implementing PBL in the interview:

I also think that age affects the likelihood of students wanting to do this method. I don't think our older students would want to try (Interview #3, March 15, 2018).

Analysis: Project-based learning is not restricted by age. In fact, as a 21st century skill, PBL is not only useful for people of all ages but is becoming increasingly important in the workplace. Employers value the ability to work on a team, problem-solving skills, written and verbal communication skills, and initiative. PBL can help develop all these skills. The teachers may need to explain the process of PBL and encourage adults to take risks. PBL does require students to take ownership and self-direct their learning, and adult students may need to reconsider their educational frame of reference. The research on project-based learning shows that it closes the achievement gap for underserved populations, improves understanding and retention of content, and increases motivation for all students, including adults.

Perception of Proficiency Level as a Barrier

The program director also expressed concerns in both the focus group and the interview about the efficacy of PBL for beginning-level ELL students.

I don't think PBL will work for the lower-levels. They need to be exposed to quantity of English. They need to be exposed to letters. We can use a lot of activities reinforcing pronunciation and other things...It also doesn't include enough listening for students who are very beginning level... To me, I think PBL can be beneficial for high-beginning and up, but for pre-basic and basic, I can't see it working (Interview #3, March 15, 2018).

Analysis: Implementing PBL in a classroom with students who have lower levels of English proficiency would be challenging. However, it's not impossible; and the benefits may outweigh the challenges. Projects allow students to solve an authentic, real-world problem they are interested in, using knowledge that they already have—despite the language. Teachers need to

be very intentional to how to scaffold the content, from the initial explanation of the project to the student's presentation of their work. For example, even at the very basic level, through the help of a translator, a teacher could ask students what questions they are interested in learning about. Through a survey, possibly translated into their L1, the students could choose a project. The project could be creating an alphabet book for a grandchild or creating a map of the bus system.

Time Management as a Barrier

The program director indicated that she didn't perceive PBL as an efficient teaching method:

Let's say I'm learning French. I know how to learn different languages, because I already have learned English [as an ESL student]. If I only have one hour of language class, I don't want to go to a class where the teacher is like, "And now we're going to cut paper" We only have an hour or two hours to work on material so it's not efficient [to use PBL] (Interview #3, March 15, 2018).

Analysis: According to research on PBL, teachers do need to spend more time preparing lessons. Cornell and Clarke (1999) reported that even though teachers found that student motivation and learning increased in project-based learning, they also found designing projects and preparing lessons very time intensive. After the initial adjustment, however, teachers reported being able to focus more on the students' learning. Time-management is an important point to emphasize to educators before they implement project-based learning in their teaching. Solving problems through projects take more time than traditional methods.

Additional Teacher Training Needed

The program director emphasized the importance of the teacher as to whether PBL can be successfully implemented.

The teacher is a big factor. PBL is a riskier learning style. The teacher needs to believe in the method. The teacher also needs to be more like a coach or a facilitator. The teacher

may misunderstand how to do PBL and think that they don't do any work during the class. If they don't have the right training, I don't think they'll be able to do it well. We are using a lot of volunteer teachers, so it would be hard to give them the right training (Interview #3, March 15, 2018).

Analysis: The program director's belief that additional teacher training is needed lines up with the research about effective professional development. According to Desimone (2009), effective professional development has content focus, active learning, coherence, duration (at least twenty hours of contact time, spread out over a semester), and collective participation. After examining the effect of a one-day PD teacher training, Wurdinger (2007) also emphasized the need for teacher collaboration for successful project-based learning implementation

Summary

The qualitative data from the professional development observation, focus group, and interviews showed how teachers considered applying their training in their teaching environments and highlighted the challenges teachers faced in doing so. The teachers and program director acknowledged benefits of PBL, such as "hands-on learning" and "teamwork." They agreed that PBL can supplement classroom instruction and help meet curriculum goals. Still, the teachers expressed many concerns about the perceived challenges, from student resistance to inconsistent attendance and shift schedules. The final chapter will delineate the limitations for the current study and makes recommendations for improved practice and future research.

Chapter 7: Conclusion and Recommendations

To explore the research questions, I observed a one-day training at a literacy council, facilitated a focus group, observed two teachers, and conducted three interviews. This chapter contains a summary of the study methodology and a discussion of the findings by research question. It also discusses the relevance of this study considering other related research. Finally, it delineates the limitations for the current study and makes recommendations for improved practice and future research.

Summary of the Methodology

I transcribed the interview responses, grouped the data into themes, and used them to complement the information gathered on the survey to describe the experience of the teachers as they considered implementing the project-based learning in their teaching environments.

Documenting Training Impact

This study received guidance from the four-step framework for training evaluation established by Kirkpatrick (Kirkpatrick & Kirkpatrick, 2006; 2007) and used by others in educational research (Desimone, 2009; Guskey, 2000). It went beyond the initial measure of participant satisfaction (Kirkpatrick's level 1 evaluation) and delved into an assessment of teachers' gains in knowledge, attitudes, or skills (level 2). The teachers' behavior changes in the classroom after two weeks from the training (level 3) and if they influenced student learning outcomes (level 4) are beyond the scope of this research project.

Presentation of the Findings

First, to what extent did the professional development training incorporate Malcolm Knowles' six principles of andragogy? While 75% participants indicated they understood the purpose of the professional development training, and 62.5% said they felt respected by the

trainer and other learners, other features were not as highly rated (Table 3). Participants noted that they were not involved in the planning (0%) or assessment of instruction (12.5%).

Furthermore, three of eight (37.5%) considered the content more theory-centered than problem-oriented.

As for research questions 2-4, regarding teachers' reporting of applying skills learned as well as challenges and successes, the obstacles faced do seem daunting. The teachers revealed they are hesitant about implementing project-based learning for four main reasons:

- Workforce environment (lack of a classroom, changing shift schedules, and inconsistent student attendance).
- Perception that age is a barrier.
- Perception that proficiency level is a barrier.
- Perception that students won't accept PBL.

Limitations

This study was based on survey and interview data. Survey data provided self-reported teacher perceptions about the usefulness and principles of andragogy. Because this study involved a case study with a specific location and small sample size, it's important to not draw unwarranted inferences. In most case studies, it's not appropriate to generalize to larger populations. This case study was also limited by a short duration of time. A longer period of six months to a year is needed to see the true conclusions of this study.

Recommendations for Professional Development Training

The observations, focus group, and interviews indicate that additional teacher training and stronger institutional support are needed before the teachers incorporate project-based learning in their class. The research findings support current research on professional

development that teachers need more than one training before implementing a new teaching technique. They also need institutional support and peer support, which could be provided from assigned mentors or instructional coaches. I conclude with the following recommendations to increase the effectiveness of a teachers' professional development training.

More Training Needed

The program director said in the interview that "additional training is needed" (Interview #3, March 15, 2018). Research supports the conclusion that educational organizations require long-term strategic plans for PD and implementation. Change does not happen quickly. Currently, the LC has no long-term strategic plan for PD and implementation (Interview #3, March 15, 2018). Three of the eight participants said they haven't participated in any other professional development in the last six months. Four other participants said the training was more useful than other professional development that they have participated in. Desimone (2009) states that effective professional development needs at least twenty hours of contact time, with activities that are spread over a semester or a summer.

Need for Institutional Support

The literature highlights the critical need for institutional support in the implementation phase of training to maximize the benefits of a professional development program. Guskey (2002) pointed out that organizational support for change is necessary for teachers to be able to apply what they learn in their training program. A lack of administrative support for making curricular and andragogic changes can be a significant barrier for teachers and may reduce the effectiveness of professional development (Darling-Hammond & McLaughlin, 2011). This study supports that claim. The program director expressed many concerns about implementing PBL, particularly in lower-proficiency classes. While the teachers have freedom to adapt the

curriculum, the program director needs to approve the changes. Based on the focus group and interviews, the program director will need to be further convinced that PBL can be effective, particularly with older learners and lower proficiency students.

Match a mentor or coach to each training participant

Research consistently shows that teachers need to be provided time and opportunity to observe, practice, receive feedback, and consult with colleagues and a mentor (Onchwari, & Keengwe, 2008; O'Connor O'Connor & Ertmer, 2006). Darling-Hammond & McLaughlin (2011) recommend that teachers work collaboratively to seek new knowledge and build professional teacher communities rather than embarking on individual initiatives. Besides assigning a mentor, the organization could also provide teachers time to observe colleagues who are early adopters.

Recommendations for Future Research

This study was a beginning point for examining the impact of a one-day training. Using Kirkpatrick's evaluation framework as a guide (Kirkpatrick & Kirkpatrick, 2006), it looked at the implementation of program training over six weeks. Outlined below are several suggestions for extending this research.

Continue to monitor long-term impact.

The participants were not able to implement project-based learning in the six weeks after the training. However, because of the limited time duration of the study, a longer time frame would be necessary to draw final conclusions. Not only did the trainees express that they enjoyed the training in both the survey and in the focus group, but they all indicated that they would try to incorporate project-based learning at some point in the future.

Work with program directors.

The role of institutional support in implementing program training is critical, and it begins with the leadership of supportive supervisors. Darling-Hammond and McLaughlin (2011) suggest that administrators create settings that allow teachers to take risks, admit mistakes and make corrections, and experiment with new teaching techniques.

Study Professional Development Designed with Adult-Learning Strategies

While participants rated the professional development training an overall positive experience, the training did not incorporate all six principles of andragogy. Additional research needs to be undertaken to see if a training that intentionally includes all six principles is more effective.

Create a long-term Impact Model for Future Teacher Training Evaluation Studies

Fishman et al. (2003) calls for more research on the impact of teacher professional development: “We continue to know relatively little about what teachers learn from professional development, let alone what students learn because of changed teaching practices” (p. 643). Future studies on in-service training should continue to examine the long-term impact of such a training (Kirkpatrick & Kirkpatrick, 2006) so that in-service curriculum designers and program funders can be assured that the training English teachers receive meets the needs of participants and makes a difference in the classroom. Future studies could focus on documenting student learning outcomes once teachers have implemented their training.

Concluding Statement

Based on the research methods, none of the teachers chose to implement project-based learning in their teaching environment directly after the professional development training. Challenges in the workforce environment in addition to the program director’s and teachers’

perceptions that age, proficiency level, and student acceptance were barriers all affected implementation. Yet the training still had value. The professional development helped strengthen the knowledge and skills of the teachers who attended. Not only was it a chance to learn content related to project-based learning, which could benefit them in their future teaching, but it was also an opportunity to network with colleagues. As an observer, I noted many conversations about teaching and idea sharing between teachers who had met for the first time at this training. Furthermore, this project was a first step that will hopefully lead to many more studies of the long-term impact of teacher professional development programs.

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Appendices

Appendix A. Interview Protocol Guide for Administrators**Interview Protocol Guide for Administrators**

Participant: _____

Date: _____ Start Time: _____ End Time: _____

I have been observing the professional development at The Literacy Council to learn more about the experiences of teachers who participated in both the professional development training and on implementing that training. Today I will ask you some general questions related to your experiences with implementing project-based learning in your administrative environment. Everything you say will be held in strict confidence, and your name will not be used in any way. Do you have any questions before we begin the interview?

1. Tell me about your work at your location.
2. How long have you been working in this program?
3. How did you become familiar with project-based learning?
4. What are your views/opinions about project-based learning?
5. Were you, or the teachers who work for the organization, able to implement any part of project-based learning training into your teaching environment? (If no, skip to question 8).
6. If yes, which parts did you implement?
7. What did you observe/assess about student learning?
 - a. How would you describe the success of the project-based learning in your teaching environment?
 - b. What types of challenges did you face in implementing project-based learning in your teaching environment?
8. If no, why weren't you, or the teacher who work for the organization, able to implement project-based learning?
9. In relation to the PBL training, is there anything else that you would like to add?

Appendix B. Interview Protocol Guide for Teachers

Interview Protocol Guide for Teachers

Participant: _____

Date: _____ Start Time: _____ End Time: _____

I have been observing the professional development at The Literacy Council to learn more about the experiences of teachers who participated in both the professional development training and on implementing that training. Today I will ask you some general questions related to your experiences with implementing project-based learning in your teaching environment. Everything you say will be held in strict confidence, and your name will not be used in any way. Do you have any questions before we begin the interview?

1. Tell me about your work at your location.
2. How long have you been working in this program?
3. How did you become familiar with project-based learning?
4. What are your views/opinions about project-based learning?
5. Were you able to implement any part of project-based learning training into your teaching environment? (If no, skip, to question 6).
6. If yes, which parts did you implement?
7. What did you observe/assess about student learning?
 - a. How would you describe the success of the project-based learning in your teaching environment?
 - b. What types of challenges did you face in implementing project-based learning in your teaching environment?
8. If no, why weren't you able to implement project-based learning?
9. In relation to the PBL training, is there anything else that you would like to add?

Appendix C. Interview Protocol Guide

Focus Group Protocol Guide

Participants: _____

Date: _____ Start Time: _____ End Time: _____

I have been observing the professional development at The Literacy Council to learn more about the experiences of teachers who participated in both the professional development training and on implementing that training. Today I will ask you some general questions related to your experiences with implementing project-based learning in your teaching environment. Do you have any questions before we begin the focus group?

1. Were you able to implement any part of project-based learning training into your teaching environment?
2. If yes, which parts did you implement?
3. What did you observe/assess about student learning?
 - a. How would you describe the success of the project-based learning in your teaching environment?
 - b. What types of challenges did you face in implementing project-based learning in your teaching environment?
4. If no, why weren't you able to implement project-based learning?
5. What are your views/opinions about project-based learning?
6. In relation to the PBL training, is there anything else that you would like to add?

Appendix D. Questionnaire for the LC Professional Development Training

Questionnaire for the LC Professional Development Training

You are being asked to complete this questionnaire to learn more about the experiences of teachers who participated in both the professional development training and on implementing that training. This questionnaire includes general questions related to your experiences with the professional development training. Your answers will be held in strict confidence, and your name will not be used in any way. This questionnaire should take approximately 5-10 minutes to complete. Directions: Please choose the single best answer unless instructed otherwise.

1. Understanding the purpose of the professional development.

Which of the following statements best describes the primary purpose of the training at the Literacy Council on February 9?

The purpose of the professional development was: (You may select multiple responses).

- A. To communicate new ideas for me to consider using in my teaching environment.
- B. To provide an opportunity for me to learn from other teachers.
- C. To help me understand project-based learning.
- D. To help me apply/implement project-based learning in my teaching environment.
- E. Not clear.
- F. Other

2. Rating the usefulness of key components of the professional development.

Which of the following statements best describes the usefulness of the training at the Literacy Council?

- A. It was a good start.
- B. It was a good start, but I have lots of questions.
- C. It was a good start, and I look forward to using the new ideas in my teaching environment.
- D. It provided everything I need to use the new ideas in my teaching environment.
- E. I don't think that these ideas will work well in my teaching environment.
- F. It's too soon to tell.

3. Perceptions of the extent to which the professional development met participants' needs.

Indicate the extent to which the training at the Literacy Council met your professional learning needs.

- A. It addressed my professional learning needs completely.
- B. It addressed some of my professional learning needs.
- C. It did not address my professional learning needs.
- D. This professional development did not help much because I was already familiar with the topic.

4. Perceptions of support and encouragement to participate in professional development.

Which of the following statement best describes the support you received from LC leadership to participate in this professional development?

- A. The leadership strongly encouraged me to participate.

- B. The leadership encouraged me to participate.
- C. The leadership tried to discourage me from participating.
- D. I did not discuss the professional development with leadership prior to participating.

5. Perceptions of support and encouragement to apply new knowledge and skills.

Which of the following statements best describes the support you received from the LC leadership to apply what you learned in your teaching environment?

- A. I believe the leadership will encourage me to apply what I learned and offered to help.
- B. The leadership has already encouraged me to apply what I learned.
- C. The leadership has not encouraged me to apply what I learned.
- D. I have not discussed what I learned with leadership.

6. Ratings of the likelihood of applying new knowledge and skills in the classroom.

Which of the following statement best describes the likelihood that you will apply what you learned in the Literacy Council professional development in your teaching environment?

- A. I have already practiced project-based learning with my students, and it seemed to work well.
- B. I have already practiced project-based learning with my students.
- C. I have already practiced project-based learning with my students, but it was not appropriate for my students.
- D. I look forward to practicing project-based learning with my students in the next few weeks.
- E. I look forward to practicing project-based learning sometime later this year.
- F. I would like to practice project-based learning, but I don't have the materials that I need.
- G. I don't think that these things will work well with my students.

7. Connecting content of professional development to principles of adult learning.

Which of the following statements apply to the professional development training at the Literacy Council on Feb. 9? (You can choose multiple entries).

- A. I was involved in the planning of the instruction.
- B. I was involved/will be involved in the assessment of the instruction.
- C. My experiences provided a basis for the learning activities.
- D. The content was relevant to my job.
- E. The content was problem-centered rather than theory-oriented.
- F. I know why the content is important.
- G. I felt respected by the trainer.
- H. I felt respected by the other learners.

8. Connecting physical environment of the professional development training to principles of effective learning.

Which of the following statements apply to the professional development training at the Literacy Council? (You can choose multiple entries).

- A. The training environment was welcoming and supportive.
- B. The room size was comfortable.
- C. The temperature of the training environment was comfortable.
- D. I could hear the presenter clearly.

9. Overall ratings of the usefulness of the professional development compared with other professional development.

Which of the following statements best describes how the professional development compares with other professional development in which you have participated during the past year?

- A. This professional development was more useful than other professional development that I have participated in.
 - B. This professional development was about the same as other professional development that I have participated in.
 - C. This professional development was less useful than other professional development that I have participated in.
 - D. I don't have an opinion.
 - E. I don't have an any opinion because I haven't participated in any other professional development in the last six months.
10. Is there anything else you'd like to say about the Project-Based Learning professional development training at the Literacy Council?

Appendix E: Professional Development Rubric

Professional Development Rubric							
		Level 1 <i>Not Meeting Standards</i>	Level 2 <i>Partially Meeting Standards</i>	Level 3 <i>Meeting Standards</i>	Level 4 <i>Exemplifying Standards</i>	Evidence	SCORE
Strategic Design	Shared Goals	<ul style="list-style-type: none"> • PD has specific and measurable goals or outcomes. • PD facilitator explicitly communicates expected outcomes, and shares evidence of meeting outcomes by end of PD. 					
	Adult Learning Strategies	<ul style="list-style-type: none"> • Learning strategies align with intended outcomes, adult learner needs, and content. • Multiple learning strategies are used to provide application of principle to practice. • PD includes best practice demonstration or exemplar modeling. • PD structure supports learners at various stages of implementation and levels of use, and accommodates various adult learning styles, preferences and motivations to learn. 					
	Follow-up Support	<ul style="list-style-type: none"> • PD facilitator encourages participants to self-assess areas of strength and need relative to PD content, and to reflect upon connection between PD content and personal professional growth goals. • Actionable steps or action plans have been created in collaboration to define next steps for implementation. • Expectations for ongoing support and assessment of progress are outlined and integrated with school follow-up structures (peer observations, administrative observations and feedback, department meetings, teacher mentors, etc.) 					
Modeling Effective	Quality Teaching	<ul style="list-style-type: none"> • Content and delivery of PD models aspects of quality teaching and essential elements of effective instruction, including: <ul style="list-style-type: none"> • anticipatory/ warm-up activity • teaching input • modeling • multiple checks for understanding • guided practice • independent practice • proving activity • closure with opportunity for feedback 					

	Effective Use of Time	<ul style="list-style-type: none"> • The majority of PD time is focused on learning related to the strategic focus rather than announcements of other 'business' • Appropriate time is allocated to each segment of professional development (i.e., warm-up) to ensure that there is proper time to complete the proving behavior and provide closure. • Structures are in place to ensure smooth transitions between topics and appropriate opportunities for balanced teacher input 		
Data	Data Analysis	<ul style="list-style-type: none"> • The PD content is aligned with the needs of the Literacy Council. • Evidence has been researched and presented to confidently suggest that current PD or strand of PD will produce desired results. • PD facilitator has communicated what data will be reviewed and how frequently it will be reviewed to determine progress toward implementation goal or student performance target. • Data has been disaggregated in a way that is clear, specific and actionable for the area of focus. 		
Collaboration	Collaborative Learning Community	<ul style="list-style-type: none"> • The PD lesson-design promotes collaboration and group problem solving on issues of importance to student achievement • Collaborative groups are strategic, allowing participants to interact and learn with a variety of colleagues (grade-level, subject alike, etc.). • PD participants are encouraged to provide constructive feedback to one another and engage in reflective dialogue. • Each PD participant has a personal understanding of the role he/she owns in the collaborative implementation of practices outlined in PD and how he/ she will be held accountable for implementation. 		

TOTAL

Adapted for use from Leading for Effective Teaching, 2012. Center for Educational Leadership. University of Washington. Retrieved from <https://www.k-12leadership.org/leading-effective-teaching>.

Appendix F. Informed Consent Form

Informed Consent for School Faculty/Staff Member

Introduction: You are being asked to participate in a research study. It is important that you read the following information and ask as many questions as necessary to be sure you understand what you are being asked to do.

Title of Research Project: The Effect of an Adult ESL Project-Based Literacy Training on Teachers' Practice

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Purpose: The purposes of this study are to (1) determine which of the four principles established by Knowles' theory of andragogy have been incorporated into the project-based teaching workshop; (2) assess the rate at which LC teachers are applying skills and techniques taught in the project-based-learning workshop as measured by a self-reporting survey and observation (3) identify what challenges (if any) they encountered and successes they have had in applying the new teaching techniques as reported by a qualitative narrative.

Procedures:

You are being asked for your permission to:

1. Participate in a professional development training on project-based learning led by a teacher employed by The Literacy Council.
2. Complete a follow-up questionnaire. The questionnaire will take between 5 to 10 minutes.
3. You may be asked to participate in an interview about your experiences working with the work literacy program at [name of workplace]. The interview will last between 20 and 50 minutes. The audio from the interview will be recorded.
4. You may be asked to be observed for two to three class sessions of your teaching after completing the project-based learning training.
5. To use your image, voice, and/or appearance as such may be embodied in any pictures, photos, video recordings, audiotapes, taken or made on behalf of the research project.

Potential Benefits and Risks of the Research: You will receive four hours of professional development training, snacks and lunch, and a \$75 stipend (pro-rated at \$15/hour) for participating in the training. Your participation in this study will contribute to the fields of language and workforce literacy education. There are no anticipated risks or discomforts associated with participation in this study. Refusing to participate in this study will not in affect your access to the professional development training.

Right to Withdraw: You are free to refuse to participate in the research and to withdraw from the study at any time until data collection is complete, at which point the identifying information will be removed from the data. Your decision to withdraw will bring no negative consequences.

Confidentiality: Participants will be assigned code names that will be used to match the applications and interview recordings. Results from the research will be reported using pseudonyms. All information collected will be kept confidential to the extent allowed by law and University policy. The linking code names will be destroyed after data collection is complete. This will then make the data anonymous, but it is not initially being recorded anonymously.

Questions about the Research: If you have any questions about the research, please ask them now. If you have questions later, you may contact Rachel Gerner either by phone (479-301-9193) or by e-mail (rgerner@uark.edu).

This research project has been reviewed and approved by the Institutional Review Board for the Protection of Human Subjects at The University Arkansas. You may also contact the University of Arkansas Research Compliance office listed below if you have questions about your rights as a participant, or to discuss any concerns about, or problems with the research.

Ro Windwalker, CIP
Institutional Review Board Coordinator
Research Compliance
University of Arkansas
109 MLKG Building
Fayetteville, AR 72701-1201
479-575-2208
irb@uark.edu

Informed Consent:

I, _____ (**please print**), have read the description including the purpose of the study, the procedures to be used, the potential for benefits and risks, the confidentiality, as well as the option to withdraw from the study at any time. I have been able to ask questions and express concerns, which have been satisfactorily responded to by the researcher. I understand that participation is voluntary. I understand that no rights have been waived by signing this consent form. My signature below indicates that I agree to participate in this study and that I have received a copy of this agreement from the researcher.

Signature

Date

Appendix G. Media Consent Form.**PHOTOGRAPHY CONSENT FORM / RELEASE**

I, (print name) _____ hereby grant permission to Rachel Gerner, to take and use: photographs and/or digital images of me for use in news releases and/or educational materials. These materials might include printed or electronic publications, web sites or other electronic communications. I further agree that my name and identity may be revealed in descriptive text or commentary in connection with the image(s). I authorize the use of these images without compensation to me. All negatives, prints, digital reproductions shall be the property of Rachel Gerner.

_____ (Date)

_____ (Signature of adult subject)

Appendix H: The Literacy Council letter of support

OZARK
LITERACY
COUNCIL

November 6, 2017

Ro Windwalker, CIP
IRB Review Board Coordinator
Research Compliance
University of Arkansas
109 MLKG Building
Fayetteville, AR 72701

Re: Rachel Gerner

Hello, Dr. Windwalker,

We are delighted that Rachel Gerner, graduate student in M.Ed. TESOL, is pursuing a research project that involves Ozark Literacy Council. She has met with me and members of our teaching staff to explain her project and research – The Effect of an Adult ELL Project-Based Literacy Training on a Teacher's Practice.

She has our support and permission to work with our teachers and students as needed at the Ozark Literacy Council throughout her research and to use our facilities.

Should you need more information, please do not hesitate to contact me. We have been very impressed by Ms. Gerner's level of detail, planning and design of her project.

Best regards,

A handwritten signature in black ink, appearing to read 'Patty Henson Sullivan', written in a cursive style.

Patty Henson Sullivan
Executive Director

Appendix I: IRB Approval



To: Rachel Gerner
 ADSB 220
From: Douglas James Adams, Chair
 IRB Committee
Date: 01/25/2018
Action: **Expedited Approval**
Action Date: 01/25/2018
Protocol #: 1710079370
Study Title: The Effect of an Adult ELL Project-Based Literacy Training on Teachers' Practice
Expiration Date: 01/04/2019
Last Approval Date:

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Tina Howlett, Key Personnel