The Effect of Training and Peer Mentor Shadowing Designed to Increase Mentor Capacity on Teacher Mentor Self-Efficacy

by

Teri Thomsen

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved March 2018 by the
Graduate Supervisory Committee:

Pamela Kulinna, Chair
Michele Mosco
Kelly Olson-Stewart

ARIZONA STATE UNIVERSITY

May 2018

ABSTRACT

This action research study focused on training for teacher mentors and teacher mentor self-efficacy. Specifically, this project explored the impact participation in a teacher mentor training program and teacher mentor peer shadowing had on teacher mentor self-efficacy. While there is a plethora of literature on teacher self-efficacy, minimal literature exists on the self-efficacy of teacher mentors. Bandura's self-efficacy theory and cognitive and collaborative apprenticeship provided the foundational body of knowledge in order to understand teacher mentors' experiences.

This study followed thirty-seven teacher mentors through the first half of the Arizona K12 Center's Professional Learning Series – Mentor Academy Year 1. Teacher mentors were given a pre-survey upon their first day in the training series, a mid-point survey halfway through the semester and a post-survey at the beginning of the following semester. Teacher mentor self-efficacy data was collected from the surveys and analyzed to determine the impact their participation in the training program had on their self-efficacy. Five random teacher mentors were also selected for interviews. This qualitative data were collected to compliment the quantitative survey data. The second part of the study consisted of interviewing six teacher mentors in a local secondary education school district to gauge the impact the peer mentor shadowing program had on their self-efficacy. Quantitative and qualitative data collected provided insights on the impact these supports had on teacher mentor self-efficacy.

The results of this study indicate the challenge and complexities of being a teacher mentor. The data showed that teacher mentors who lacked training prior to or upon initial entry into their new position of teacher mentor struggled to be effective

which negatively affected their self-efficacy. The data also indicated that teacher mentors who participated in the Arizona K12 Center's mentor training program had greater self-efficacy for their roles. Finally, teacher mentors participating in peer mentor shadowing opportunities found it to be of the greatest impact leading to stronger self-efficacy.

DEDICATIONS

Occurring over the course of many decades, my educational journey towards the pinnacle has been a long rough road paved with certain constants. Those constants have been my parents, my sister and my beautiful daughter.

To my parents—Thank you for putting up with the tenacious naughty teenager I was so many years ago and believing in the strong confident woman I have become. Your constant high standards, occasional tough love, and never-ending support allowed me to push myself further than any would have believed. I know you are proud of the woman I have become and that fills my heart with love.

To my sister—I am not sure you realize how amazing I think you are and how much I love you. Your strength in the face of adversity made me keep moving on when I felt like quitting. You are my sister, my idol, and my best friend, and have provided me with my most special memories. If I can be for you even half of what you are for me it will still never be enough. I love you sissy!

Finally, to my daughter—There is no love like a mother for her daughter and no love like a daughter for her mother. Our relationship is unlike anything I ever thought I would have in my life, let alone with a daughter. I have tried to be a role model for you with much of what I do as an example of how you can make your life into anything you want despite the mistakes you make along the way (because Lord knows I have made more than my fair share). Apparently, it has worked because I am so proud of you for growing up to be such a strong, educated, intelligent, giving woman. I hope this last educational accomplish will keep that spark alive in you. I love you so very much my beautiful daughter!

ACKNOWLEDGMENTS

There were many who helped me accomplish the pursuit of my doctorate degree but a few who were critical to my success.

First, I want to acknowledge the professional associations that allowed me to complete this study. To the Arizona K12 Center and the New Teacher Center, thank you so much for allowing me access to teacher mentors enrolled in the PLS-MA1. I am so grateful and proud to have worked with such an amazing institution!

My professional associations with Sun Valley were also instrumental in the collection of data. Both the mentor team and the administration were fully supportive of this study, allowing me time and access to the collect of data. I especially want to acknowledge my supervisor because this is all her fault!

Dr. Michele Wilson also deserves recognition and thanks because she allowed me to be “just” a mentor and sheltered me from the many distractions in my job which might have taken me away from my dissertation. Your gift of time was such a blessing but your gift of leadership and mentoring was even more powerful. I hope I grow up to be just like you (even if I am older than you!).

Next, I would like to acknowledge a couple of very special people in my cohort.

To my hiking buddy. Who knew I would not only find a member of my cohort to drive me on my dissertation but a hiking buddy to drive me up Bridal Veil Falls. For our friendship formed over a dissertation and solidified on the mountain trails, I am so grateful.

Richard Ramos, you are my professional idol. Someday, I want to be the kind of leader you are in every aspect of your life.

Dr. Pamela Kulinna. Thank you for being just the kind of chair I needed. Your kindness, support and guidance is why I managed to make it to the end.

Finally, to my absolute bestie in the whole world, Momma Sissy! I have no words to thank you for always thinking of me and supporting me when I really needed to be doing that for you. I love you so very much and thank God for bringing you into my life.

TABLE OF CONTENTS

Page

LIST OF TABLES xiv

LIST OF FIGURES xvi

CHAPTER

1 DETAIL FOR PROBLEM OF PRACTICE AND CONTEXTUAL SETTINGS .. 1

Introduction 1

Problem of Practice Definition 1

Alternative Problem Definitions (A Short Review of the National Situation) 2

Wicked Problems 3

The Wicked Problems of Teacher Induction 3

Mentor Turnover 4

Inadequate Teacher Preparation 4

The Wickedly Wicked Problem of Alternative Certification 6

Examples of Effective Balance Between Theory and Practice 7

Mentoring Systems 8

Institutional Isomorphism in Mentoring Programs 8

Mentoring Intervention Examples 10

Mentoring Versus Coaching 10

Mentoring Programs 12

Social Context 14

Common Core Standards 14

Cultural Issues 15

CHAPTER Page

Historical Context 16

Current State of the Mentoring Program 17

New Mentor Training Program 17

Consequences of Mentor Turnover 18

Local Context 19

Current Reporting Structure 19

New Teacher Academy 20

Current State of Affairs for Mentors 21

Purpose, Rational and Research Question 21

Purpose 21

Mentor Training Program: Prong One 22

Mentor Training Program: Prong Two 23

Rational for Study 24

Research Question 24

Conclusion 25

2 MENTOR TRAINING 26

Theoretical Perspective and Frameworks 26

Introduction 26

Self-Efficacy Theory 27

Cognitive and Collaborative Apprenticeship 30

The Importance of Mentoring 33

In Support of Mentor Programs 34

CHAPTER Page

Effective Mentor Programs 39
Mentor Training Programs Currently Utilized 39
Studies (Or Lack Thereof) of Teacher Mentor Self-Efficacy 42
Conclusion 44
3 METHODS 45
Introduction 45
Research Design 45
Setting 47
Cycle Zero 49
Participants 49
Sun Valley Teacher Mentors 49
Role of Researcher 51
Intervention 52
Instrument 53
Semi-Structured Interviews 53
Limitations 54
Procedures 55
Data Analysis 56
Interview Results 56
Cycle One 59
Participants 59
PLS-MA1 Participants 59

CHAPTER Page

Intervention 60

Professional Learning Series – Mentor Academy Year One (PLS-MA1) 60

Part One 60

Part Two 62

Instrument 63

PLS-MA1 Survey Tool 63

Limitations 67

Data Analysis 68

Results 68

Dissertation 69

Interventions 70

PLS-MA1 70

Mentor Shadowing 70

Participants 70

PLS-MA1 Participants 70

Sun Valley Teacher Mentors 70

Instruments 71

PLS-MA1 71

TMSES 71

Semi-Structured Interviews 72

Mentor Shadowing 73

Survey 73

CHAPTER Page

Panel Interview 73

Procedures and Timeline 74

Procedures for Survey 74

Pre-Survey August 2017 74

Mid-Point Survey October 2017 75

Post-Survey January 2018 75

Procedures for Interviews 76

Quantitative Data Analysis 76

Qualitative Data Analysis 76

Trustworthiness 77

4 FINDINGS 78

Findings of PLS-MA1 Training (Research Question 1) 78

Quantitative Findings 79

Internal Consistency of TMSES 79

Descriptive Statistics for Mid-Point and Post TMSES 82

Graphic Representation of Changes Over Time 84

Qualitative Findings from Teacher Mentors in the PLS-MA1 Training 88

Affect 88

Negative Affect 89

Positive Affect 90

Motivation and Cognition 90

Motivation 91

CHAPTER Page

Cognition 91

Summary of Findings 91

Qualitative and Quantitative Findings of Mentor Shadowing (Research Question 2) 92

Quantitative Findings of Mentor Shadowing 93

Qualitative Findings from Mentor Shadowing 98

Sun Valley Interviews 98

Theme One. 98

Theme Two 100

Theme Three 102

TMSES Comments 104

Summary of Findings 106

5 DISCUSSION 107

Overall Themes 107

Teacher Mentors' Confidence in Their Abilities 108

Teacher Mentor Job Training 108

Mentor Shadowing Opportunities Have a Positive Impact on Teacher Mentor Self-Efficacy 109

Tying the Threads Together Across Cycles 110

Constants Throughout the Cycles 110

Changes in Through the Cycles 110

Limitations of Study 111

CHAPTER Page

Complementarity of Quantitative and Qualitative Data 112

Results in Relation to Theoretical Frameworks and Supporting Literature 113

Theoretical Frameworks 113

Supporting Literature 113

Lessons Learned and Implications 115

Learning Related to the Researching Process 115

Dissemination of Study Results 115

Natural Follow-up Study 116

Personal Lessons Learned 116

Implications for Practice 117

Mentor Training 117

Recommendations for Mentor Training and Support 118

Full Release Mentors 119

Manageable Caseloads 120

Clearly Defined Program Objectives 121

Implications for School Districts 122

Implications for Research 122

Closing Thoughts 123

REFERENCES 124

APPENDIX

A THE CONTINUUM OF MENTORING STANDARDS 133

B INTASC STANDARDS 149

APPENDIX Page

C TEACHER MENTOR SELF-EFFICACY SURVEY 161

D TABLE 16 SURVEY PROMPTS 177

E TABLE 17 2017-2018 PLS-MA1 PARTICIPANT DEMOGRAPHICS 180

F INTERVIEW QUESTIONS 183

G EXPERIENTIAL LEARNING THEORY 185

H PLS-MA1 OUTCOMES 189

LIST OF TABLES

Table Page

1. Percentage of Beginning Teachers Still Teaching One Year Later 41
2. The Six Items Loading on Feedback from Sudsweeks' Survey Instrument 43
3. Sun Valley Demographics 48
4. Sun Valley Graduation and Dropout Rates 48
5. Sun Valley AzMERIT Scores 49
6. 2015-2106 Sun Valley Teacher Mentors with Years of Teaching Experiences, Content Area Taught, and Years of Mentor Experiences 50
7. Open-Ended Interview Questions 53
8. Clarifying Questions Asked During Interviews in Cycle Zero 54
9. Pilot Study of TMSES for 2016-2017 PLS-MA1 59
10. PLS-MA1 Part One – Instructional Mentoring 61
11. Continuum of Mentor Practice 62
12. PLS-MA1 Part Two – Observing and Conferencing 62
13. Teacher Mentor Self-Efficacy Survey Outline by Section 64
14. Six Items Pulled from Sudweeks (2005) for Teacher Mentor Self-Efficacy Survey 65
15. Example of Modified Questions for Teacher Mentor Self-Efficacy Survey 66
16. Origination of PLS-MA1 Outcomes and Sun Valley's Retention Goal to Survey Prompts 176
17. 2017-2018 PLS-MA1 Participant Demographics 179
18. 2017-2018 Sun Valley Teacher Mentors with Years of Teaching Experience,

Table Page

Content Area Taught, and Years of Mentoring Experience 71

19. Questions on TMSES for Mentor Shadowing 73

20. Dissertation Cycle Procedures and Timeline 74

21. Cronbach Alpha Scores for Dissertation Pre-Survey of Teacher Mentor Self-Efficacy Survey in August 2017 79

22. Cronbach Alpha Scores for Pre-Survey of Teacher Mentor Self-Efficacy Survey 81

23. Descriptive Statistics for TMSES Mid-Point Survey and Post-Survey 83

24. Descriptive Statistics for Pre-Survey August 2017 on Mentor Shadowing Items 63 and 67 93

25. Descriptive Statistics for Mid-Point Survey October 2017 on Mentor Shadowing Items 63 and 67 94

26. Descriptive Statistics for Item 65 “How long did each shadow visit last?” on Mid-Point Survey 95

27. Descriptive Statistics for Item 64 “How many times have you shadowed a peer mentor in one school year?” on Mid-Point Survey 95

28. Descriptive Statistics from Mid-Point Survey October 2017 and Post-Survey January 2018 on Mentor Shadowing 96

29. Descriptive Statistics for Item 64 “How many times have you shadowed a peer mentor in one school year?” on Post-Survey 97

30. Descriptive Statistics for Item 65 “How long did each shadow visit last?” on Post-Survey 98

LIST OF FIGURES

Figure Page

1. Apprentice stage of development from introduction to master. 32
2. Action research is a continuous cycle of planning, acting, observing, and reflecting. 46
3. Means trend data for Bandura's (1970) unpublished teacher self-efficacy instrument on Pre, Mid, and Post-TMSES. 84
4. Means trend data for Engagement on Pre, Mid, and Post-TMSES. 85
5. Means trend data for Instruction on Pre, Mid, and Post-TMSES. 85
6. Means trend data for Classroom Management on Pre, Mid, and Post-TMSES. 86
7. Means trend data for Retention on Pre, Mid, and Post-TMSES. 86
8. Means trend data for PLS-MA1 on Pre, Mid, and Post-TMSES. 87
9. Means trend data for entire TMSES on Pre, Mid, and Post-TMSES. 88

CHAPTER 1

DETAIL FOR PROBLEM OF PRACTICE AND CONTEXTUAL SETTINGS

Introduction

I am a district mentor with a small west valley high school district. Several years ago, our district committed to the support and acceleration of practice for newly hired first and second year teachers through the implementation of five district mentor positions. These positions provide dedicated site mentors who work solely with first and second year teachers spending a designated amount of time with them each week. In a confidential setting, mentors conduct a cycle of conference-data collection-conference (CDC) where the beginning teacher is encouraged to reflect on their practice using data—which comes from mentor observations of the teacher's instructional practices in their classroom—and subsequent conferences where the mentor uses cognitive coaching and reflective practices to encourage teachers to identify their own areas with a need for change.

Problem of Practice Description

The mentor program existed when I began with the district in 2009. At that time, the Deputy Superintendent of Curriculum, Instruction, and Assessment headed the district level program but it is now headed by the Director of Curriculum and Instruction. Five mentors support all schools district-wide with each mentor assigned to one of five campuses. Mentors were, and still are, responsible for providing one-on-one support for all first and second year teachers, in addition to, coordinating the new hire orientation program at the beginning of each new school year.

Originally, this program was implemented with full support from Northern

Arizona University (NAU) where NAU personnel took the lead in offering training and professional development for first and second year teachers, as well as, training and on-going professional development for district mentors.

Training for mentor teachers has been a concern as very few training programs are designed specifically for them creating a void in teacher mentor support. Additionally, no studies have been specifically conducted on mentor self-efficacy. The lack of training programs and research further create a problem of practice.

Alternate Problem Definitions (A Short Review of the National Situation)

According to Cuban (1969), professionals will grapple with what appears to be a problem in need of a resolution; however, it is not a problem but a "dilemma" for which there is no solution. Solutions are not available because there are too many competing issues influencing opportunities for finding an acceptable resolution (Cuban, 1969). A mentoring program may be a useful idea for reducing teacher turnover; however, this might be one such insolvable issue because the issue itself stems from some greater problem. There may be other related problems as well, such as, too few teacher resources impeding teacher improvement leading to teacher turnover—even with effective mentors. My problem of practice, however, is mentors with little training to do their job. This section will explore two issues uncovered during the literature review: teacher turnover and inadequate teacher training.

In research conducted by Ingersoll and Smith (2003) based on a 1994-1995 Teacher Follow-up Survey, nearly 29% of teachers leave the profession within their first five years of teaching due to disgruntlement. In fact, this issue has come up repeatedly in the review of the literature so I have chosen to explore it here.

One idea permeating this issue relates to the lack of respect for teachers. Cuban (1969) believes teachers are not respected for the work they do creating an environment where satisfaction is next to impossible. Teachers who can live with this lack of respect stay in education because their calling to share their knowledge with students is stronger, making this trade-off acceptable (Cuban, 1969). Student behavioral issues could also fall into the category of lack of respect. Of all teachers surveyed, 19% were beginning teachers and nearly 35% of those beginning teachers left the profession as a direct result of student behavioral issues (Ingersoll & Smith, 2003). Teachers with issues related to student behavior classify this as a lack of respect.

Kang and Berliner (2012) found in a follow-up study that exodus from the profession could be classified as voluntary or non-voluntary/unavoidable. Non-voluntary/unavoidable exits were for reasons such as relocation, school transfers, and decisions made by others that impacted their ability to remain in their position as a teacher. Voluntary exits, however, were solely at the discretion of the teacher themselves and fell under job related stress, organizational commitment, and low job satisfaction related to unsupportive leadership, disorganization, and poor working conditions (Kang & Berliner, 2015). Ingersoll and Smith (2003) found the greatest area of disgruntlement was related to low salaries. Nearly 79% of the respondents surveyed upon exiting the profession stated they were leaving due to inadequate compensation.

Wicked Problems

The Wicked Problems of Teacher Induction

The district under study is currently in a situation Jordan, Kleinsasser and Roe (2014) would label as a *wicked problem*. Per these researchers, wicked problems are

issues very difficult to find solutions for, if at all (Jordan et al., 2014). Two wicked problems exist for our district: mentor turnover and inadequate teacher preparation. Four related areas are discussed below including: (a) mentor turnover; (b) inadequate teacher turnover; (c) the wickedly wicked problem of alternative certification; and (d) effective examples of a balance between theory and practice.

Mentor turnover. One of the wicked problems referenced by Jordan et al. (2014) my district faces is that of mentor turnover. For my district, the position of district mentor appears to be a stepping-stone for many mentors prior to moving into positions of more responsibility, such as Teacher on Special Assignment (TOSA) or Assistant Principal (AP). Showers and Joyce (1996) indicated peer mentoring pushed teachers to incorporate new instructional strategies into their practice supporting the importance of enhancing the growth of newly hired teachers; however, because of the significant learning curve for new mentors this can be very difficult to accomplish early in the new mentor's career. When trained district mentors are leaving the position at a rate of approximately 20% every year there appears to be insufficient numbers of experienced mentors who have the knowledge and finesse required to push teachers in their practice.

Inadequate teacher preparation. Another serious concern affecting our mentor program relates to the availability of experienced teachers to fill classroom positions. Education suffers from a lack of qualified teachers leaving many teaching positions unfilled (Arizona School Board Association, 2015; Cochran, 2015; Reiser, 2016; Vedantam, 2017) forcing the district into a position where we must hire teachers seeking their teaching credentials through alternative means. These teachers come to us with very little, if any, teaching experience at all. Novice teachers need support because while

earning their teacher certification they are also in the classroom, very often teaching for the first time.

Teachers can enter the classroom through two avenues both of which can leave them ill prepared for the profession. The first one, discussed here, is through attendance at a traditional teachers' college. Cuban (1969) felt traditional teacher preparation programs fall significantly short of adequately preparing teachers to enter the workforce due to a lack of preparation on the part of the traditional teacher preparation program.

Nearly all traditional teacher education programs prepare teachers for classroom instruction through a combination of coursework and student teaching prior to graduation. Ideally, this combination of knowledge gathered from a lecture or textbook-based environment and tutelage from an experienced supervising teacher through student teaching allow the student teacher to put textbook knowledge into application. The wicked problem here is that not all students graduating with earned degrees in teacher education obtain adequate skills by the time they graduate.

Part of the traditional education preparation program usually involves a semester or two of student teaching under the supervision of a cooperating teacher and perhaps other earlier internship experiences. Weaknesses in this model are found for several reasons. According to Fantozzi (2013), the co-mingling of three parties creates an issue simply from having three personalities involved: the student teacher, the cooperating teacher, and the university professor. All three have different expectations (Fantozzi, 2013). The university professor and cooperating teacher are experienced teachers and have a solid foundation of experience on which their expectations are based making them more realistic. The student teacher, however, which is the definition of novice, may have

an idealistic expectation because of their inexperience. This combination of personalities and varying levels of experience may lead to dissatisfaction and poor preparation of the student teacher.

Further complicating the matter is that cooperating teachers may not know what the university expects from them when it comes to the supervision of the student teacher (Fantozzi, 2013). Without knowledge of the instructional theories and practices advocated by the university, cooperating teachers cannot adequately support the ongoing development of their student teachers (Fantozzi, 2013). As such, there will be a disruption in the ability of the student teacher to implement their theory and learning into instructional practice.

Finally, what is learned in textbooks and a structured classroom environment is not always readily translatable into the teacher's first real classroom experience. Actual learning comes in the form of day-to-day activities throughout the school year. Most student teacher experiences consisting of one or even two semesters do not give student teachers an actual portrayal of a typical year. This possible lack of classroom-based teacher learning may leave them very ill prepared putting them in a situation where they frequently fail if they do not have adequate district support as a new teacher.

The wickedly wicked problem of alternative certification. Not all teacher education programs are lacking in on-the-job training for new teachers. The Arizona Department of Education (2015) has endorsed twelve programs they call alternative pathways to teacher certification from a variety of institutions providing just this kind of teacher education while working as a temporary teacher. These programs are also known as teacher-in-residence or teaching intern programs at other institutions. Since teachers

in these programs work as they learn theory and background knowledge for educating students, they come to the profession unprepared for the classroom because they are missing the theory and background, as well as, instructional experience. To solve one problem, yet again, another wicked problem is created (Cuban, 1992; Jordan et al., 2014).

To assist school districts in their need to fill the more than 1,000 vacant teaching positions in the state (Cochran, 2015; Irish, 2016), the Arizona Department of Education (ADE) has created a Teaching Intern Certificate available to individuals holding any bachelor's degree or equivalent (Arizona Department of Education, 2016). Teacher interns who meet the requirements stipulated by ADE are issued a certificate allowing them to begin teaching in the classroom. Their course work in education occurs simultaneously while actively working as a teacher. At this point, they are then teaching in any classroom for which their certification entitles them without the direct, day-to-day observation and supervision of a cooperating teacher—as is required for college students who are completing their student teaching. Usually, these teachers do not have even one semester of theory or instructional practice leading them into the classroom. They start blind without any idea of what they need or how to begin teaching.

Examples of effective balance between theory and practice. Effective examples of embedded teacher training programs do exist. For example, Arizona State University (ASU) offers a program entitled ITeachAZ where seniors in the Mary Lou Fulton Teacher's College (MLFTC) teach full-time in a cooperating district with a mentor teacher. With their mentor teacher, student teachers plan lessons and instruct students. Additionally, ITeachAZ incorporates cohort programs which exist between MLFTC and state school districts allowing student teachers to also attend their ASU

courses on site at their school while also teaching under supervision (Arizona State University, 2017).

Programs such as ITeachAZ appear to be extensive in educating and supporting new teachers, however, these programs are not pervasive. There are far too few available for those willing to enter the career field of teacher education. As such, in a profession where one perfects their craft through continuing education and practice, the lack of adequate teacher preparation is the most-wicked of problems in education (Jordan et al., 2014).

Mentoring Systems

Mentoring has become a staple of many school districts who hire new-to-the-profession teachers with nearly all these school districts implementing some type of mentoring program (Denton & Hasbrouck, 2009; Neumerski, 2012; Teemant, Wink, & Tyra, 2011). Researchers like Marzano and Simms (2012) and previous administrators like Hall and Simeral (2008) have published books based on their research studies and personal experience in education in the areas of mentoring. Ideally, using mentoring programs, teacher capacity can be increased and turnover reduced through support provided by mentoring teachers (Hall & Simeral 2008; Marzano & Simms, 2012). The idea sounds promising to the point districts are ready to make that isomorphic change (DiMaggio & Powell, 1983).

Institutional Isomorphism in Mentoring Programs

According to DiMaggio and Powell (2014), organizations facing the same set of obstacles will end up mimicking each other to work their way through these obstacles. This mimicry, according to DiMaggio and Powell (2014), is called mimetic isomorphism,

a reaction that occurs because of not knowing how to handle challenging situations or obstacles. As such, districts will mimic each other as evidenced by mentoring programs (DiMaggio & Powell, 2014). As is the case in nearly all Arizona school districts (Cochran, 2015), our district is faced with a limited availability of qualified, experienced teachers and the exodus of experienced teachers who are leaving their districts or the field entirely. The challenge facing the school district under study is even greater because they are left without a mentoring program when their previous mentoring program was no longer available, which is exactly one of the issues presented by DiMaggio and Powell (2014). According to the idea of isomorphism, the most significant issue is that when organizations copy the ideas of another they end up putting themselves in a position where they are unable to make changes down the road (DiMaggio & Powell, 2014); however, this is not the only issue with teacher induction through use of mentoring programs.

Mentor programs are implemented to varying degrees which gives rise to another problem, specifically, efforts to keep costs down. When districts strive to reduce the cost of their mentor program it affects the type of program ultimately implemented. Denton and Hasbouck (2009) provide a nearly inexhaustible list of mentoring program examples. At the lowest level, possible districts appear to implement mentoring programs; however, their program consists of encouraging teachers to work with more experienced peers if they need assistance. Middle of the road programs, such as the studied district, demonstrate an intentional commitment to their mentoring program including formal training programs for their mentors as well as the new teachers the mentor program is designed to support. Then, of course, there are the elite mentoring programs such as the

ones offered by very few states (19 TAC Chapter 153 Subchapter BB, 2010; Oregon, 2014) where their programs are formal, fully governmentally supported offering the potential for the most success towards achieving the goal of actuating teacher growth and capacity.

The idea of mentoring is to provide support for teachers in an effort to increase their effectiveness at an accelerated rate (Hall & Simeral, 2008; Marzano & Simms, 2012). The most effective mentoring programs are structured and affect every member of the organization in a positive manner. According to Sutton and Rao (2014), the only way to improve practices is to touch everyone in the organization and move them all forward one small step at a time rather than asking just one person to take a huge step. Sutton and Rao (2014) cite case after case of effective mentoring examples. For example, Facebook requires that all new hires go through six weeks of "Bootcamp" with engineers—not the human resources department. Another example involves the hiring of an athletic director by Hendrick Motorsports who is tasked to work with all pit crew members on a nearly daily basis (Sutton & Rao, 2014). On the opposite end of the spectrum, Sutton and Rao (2014) cite Starbucks' mediocrity in 2007 as an example for what can happen if new employees are hired and ignored. Mentoring at its best takes each new teacher, pairs them with a mentor and provides time for the pair to learn and grow, in many cases, together. The new teacher learns to become reflective and perfect their craft while the mentor learns to refine their mentoring stances to move that teacher forward.

Mentoring Intervention Examples

Mentoring versus coaching. At this point, it is important to clarify the meaning of mentoring, as well as, elucidate the variety of mentoring programs, or supports,

available. Often, school districts will use the vernacular of mentoring yet the program they actually implemented is instructional coaching. On the other hand, on the other hand, they may have implemented mentoring programs yet not provided the necessary supports to ensure a truly effective mentoring program is sustained.

To begin, the terms mentoring and coaching tend to be used interchangeably. This is not accurate as a distinct difference exists between them. According to a senior program consultant at the New Teacher Center (Villarreal-Carman, 2016), the most distinct difference between coaching and mentoring is accountability. Under coaching the accountability piece is missing. If considering the analogy of a volleyball coach teaching a player to spike the ball, the actual accountability piece does not present itself until that player is part of a team in a volleyball match. It is similar when coaching teachers. Villarreal-Carman (2016) describes coaching teachers as missing that accountability piece because there is no actual follow through. Coaches give instructional advice, often making recommendations but many times the follow-through piece is missing.

Mentoring, on the other hand, is much more structured. Teacher mentors hold teachers accountable for improvements in their instruction. Instructional recommendations or suggestions are made with the mentoring relationship structured in a manner requiring mentors to follow through. Very often this involves collecting data regarding implementation of instructional strategies whereby the mentor and mentor teacher discuss the delivery of the strategy (Villarreal-Carman, 2016). As such, for the purposes of this study, the vernacular of mentoring will be used because it specifically addresses the meaning and purpose of this study.

Mentor programs. Mentor programs run the gamut from site-based, with mentors having no release period for their assigned task, to state-funded, fully supported mentoring programs. Many districts claim to have mentors or mentoring programs, however, they are nothing more than peer coaches which do not meet the aforementioned definition of a mentor. Rather, a true mentor is typically trained in the art of mentoring and often compensated through stipends, release time, or both. Additionally, mentors may be site-based or they may be district-based. And, in some cases, they must even be state-endorsed, trained, or certified.

New Mexico's Public Education Department provides an example of a strong mentoring program because they are structured, organized, and state-supported through grant funding. Public school districts are required to implement mentoring programs; however, to receive offered supports they must submit and receive approval prior to being awarded available grants. Approved programs require all teachers in their first years of teaching to participate in and successfully finish the mentor program offered by their school district. Additionally, training on research-based instructional methods and building rapport is a required component for all mentors. District mentoring programs are evaluated every three years with those maintaining adherence to the stipulated regulations continuing to receive funding which provides stipends to district mentors as well as supports mentors and beginning teacher trainings (New Mexico Public Education Department, 2008).

Another example representing a state supported and funded mentoring program comes from the Oregon Department of Education. Unlike the New Mexico Public Education Department's mentoring program, Oregon's program is strictly voluntary.

Additionally, Oregon's program not only supports beginning teachers but beginning administrators as well. Funding is provided through grants if school districts adhere to state regulations and participation in the collection of data through annual surveys. Training must be provided for mentors prior to the start of the school year in addition to ongoing professional development regarding best instructional practices and building rapport. Regulations also specifically stipulate mentors shall not be involved in evaluating beginning teachers nor shall data collected by the mentor on the beginning teacher be utilized in the evaluation process (Oregon Educational Act for the 21st Century, 2015). Finally, beginning teachers must also receive research-based trainings supporting their professional development in the classroom (Oregon Department of Education, 2014).

School districts may also implement mentoring programs. Two examples come from the Ripon Area School District in Ripon, Wisconsin and the School Board of Highland County in Sebring, Florida. Both districts have partnered with their educational associations to provide beginning teacher induction and mentoring programs. Neither district has full release mentors so mentors also have teaching responsibilities, although, each district does provide their mentors with a stipend. Both districts do require mentors to be experienced teachers, receive recommendation from an administrator, and participate in mentor training provided by the associated districts. (Ripon Area School District, 2012; School Board of Highlands County, 2009)

As demonstrated, mentoring may be instituted in a variety of manners, some being fully state supported while, in others, districts and schools bear the burden of all mentoring costs. Regardless of the type of mentoring program instituted, however, a true

mentoring program focuses on new teacher growth through the practice of facilitating self-reflection.

Social Context

After World War II, mass education solidified on a national level in the United States with all children required to attend school (Meyer, Ramirez, & Soysal, 1992). According to Meyer et al. (1992), this typically occurs because of some need to address issues related to society. This section addresses issues related to our present social context, specifically, governmental mandates that students be college and career ready upon graduation, and the cultural issues affecting education.

Common Core Standards

Over the years, trends in educational reform have been in the forefront of American politics. These trends have created such programs as Goals 2000, No Child Left Behind, and most recently, the common core initiatives. The Common Core Standards represents the common core initiatives as a set of standards created at a national level and implemented at the state level where K-12 students are required to be prepared upon graduation from high school to enter either the workforce or college (Common Core Standards, 2015). Numerous arguments abound regarding the feasibility of such a program, as is typical with most national or state initiatives. Doyle (2012) conducted a study of the arguments for and against the Common Core Standards and determined that competing arguments were found in equal number.

Supporters for the Common Core Standards come from those with financial interests, political interests, and those interested in the general welfare of a child's education (Doyle, 2012). Financial supporters stand to gain a substantial amount of

money from the outsourcing of contracted services to the issuance of new textbooks aligned to Common Core Standards. Political backers stand to get their names in the press, as well as, their constituents' interests approved by tying them to the backs of common core initiative items. Those that have the general welfare of the child in mind are typically backers because of altruistic measures.

Of course, there are those who decry the Common Core Standards. Some believe it will water down the curriculum, making it "flat" and "historical" in nature (Doyle, 2012). Others argue the security of the nation will be compromised due to a lack of creativity, citing countries who have national curriculums such as England and China as examples because of their lack of Nobel Prize winners (Doyle, 2012).

Regardless of whether the Common Core Standards are supported or not, it appears to be here to stay for now and, therefore, affects the social context of schools. Teachers are expected to develop students who can enter either the workforce or the college classroom fully prepared. This leads to a shift in instructional focus for teachers, especially because of federal money being tied to the success of students. Beyond the common core initiatives, many other cultural issues may influence school settings.

Cultural Issues

Merriam-Webster online dictionary (n.d.) defines culture as "the beliefs, customs, arts, etc., of a particular society, group, place, or time," as well as, "a particular society that has its own beliefs, ways of life, art, etc." Using this definition of culture, students of the 21st century could be described as having their own culture. They may not learn differently than they did centuries ago but they do have many more readily available resources for learning than they ever did, such as the internet, cell phones, and access to

social media. Couple that with the abundance of research reports on the brain and learning as well as the role of physical activity in learning and there is now more need than ever to work with incoming teachers to foster their growth utilizing these cultural paradigms shifts in their instructional practices.

For many years, researchers have looked at education in diverse cultural contexts focusing heavily on the educational environments of lower socioeconomic status (SES) environments. In short, SES, coupled with teacher attitudes about SES, can negatively affect student success. Mentoring programs work to address these issues so teachers create mindsets that firmly establish the belief that all students can succeed.

Historical Context

Initially, the idea of implementing a mentor program came about because of a professional relationship between the studied district's then Deputy Superintendent of Curriculum, Instruction, and Assessment and an educational professor at NAU.

When the district mentoring program was first implemented in 2006, the district and district mentors had support through a NAU grant-funded program called the Teacher Induction Program (TIP) operated out of the College of Education at NAU. A tenured NAU professor led the program with support from a project director; however, the grant eventually terminated with NAU relinquishing support. At that point the school district was forced to assume control with the 2013 mentoring team assuming all responsibility.

Through the TIP program, sixteen two-hour professional development (PD) workshops were provided annually to new teachers, as well as quarterly one- or two-day PD workshops for all district mentors. TIP also assumed responsibility for training all newly hired mentors. Further, data collection tools and conferencing journals required to

perform duties associated with mentoring were provided to district mentors by TIP for their use. TIP also conducted the analysis of collected time and data records providing reports to the Director of Curriculum and Instruction. At the height of the TIP program, TIP serviced at least eight west valley school districts, including the studied district.

By the time the program was discontinued at the end of the 2012-2013 school year, all west valley school districts except the studied district had dropped out of TIP. During the 2013-2014 school year, the services provided by TIP were so sparse even the studied district opted out of the formal TIP program and district personnel assumed responsibility. As such, they were left without any means of support for new teachers and mentors, leaving a huge void in their mentoring program.

Current State of the Mentoring Program

With the elimination of TIP, district mentors in the studied district have been required to provide PD to first and second year teachers since 2014. The continued use of TIP materials violated copyright laws requiring the development and implement of their own curricula. It also required the development and creation of data collection and conferencing tools as previous tools were copyrighted by TIP, too. Finally, the district found itself responsible for mentor training, as well.

New Mentor Training Program

Without available training programs, mentors are not able to adequately accelerate new teacher practice. Reading of any variety of books and research reports available on mentoring practice is a very time consuming and daunting process and may be the only source of mentor training for some mentors. There is a fairly new program available to mentor teachers through the Arizona K-12 Center in association with the

New Teacher Center. This series is called the Professional Learning Series (PLS) and is offered for mentors over a three-year period with the first year called Mentor Academy Year One (PLS-MA1) and subsequent years called Mentor Academy Year Two and Year Three (Arizona K12 Center, 2017). Ideally, the years indicated the years of experience of the mentor while each of the three years are designed for mentors working with beginning teachers (Arizona K12 Center, 2017). The district under study was primarily interested in the PLS-MA1 program as this is the first series of the three-year PLS program. According to the Arizona K12 Center's website the PLS-MA1

> …consists of four, two-day sessions… [with a]…sequenced curriculum…building the knowledge, skills, and understandings critical for new teacher mentors and coaches in a range of program contexts. Each session has a specific focus, which provides for the collection and analysis of data from the field. (Arizona K12 Center, 2017)

Consequences of Mentor Turnover

To complicate matters, the mentoring program seemed to be a stepping-stone for teachers seeking an administrative role. When fully staffed, the district had five dedicated mentors, one at each of the five high schools. From January 2012 through the publication of this dissertation, one new district mentor replaced one experienced mentor every year with the experienced mentor leaving for a position of more responsibility. What was most concerning related to the loss of the TIP program was the lack of training for mentors. From 2014-2016 no training existed for newly hired mentors. Without adequate training, mentors may suffer from low self-efficacy early on in this role which could last for several years into their career as a teacher mentor (Portner, 2005). Issues

related to low self-efficacy are a bi-product of the challenge of accelerating new teacher practices combined with a lack of adequate mentor training. The idea of accelerating new teacher practice or assisting new teachers in their professional growth more quickly than could be accomplished without a mentor is not impossible without adequate training but it makes it very difficult. With the absence of TIP, inadequate support for both new teachers and mentors created barriers to both as well as the development of individuals' effectiveness related to teaching and mentoring respectively.

Local Context

Current reporting structure. Loosely coupled systems are typical for educational institutions because much of what occurs in the ranks of the institution is outside the direct and immediate supervision of its upper echelon (Weick, 1976). As defined by Weick (1976), the overall structure of the district would be considered a loosely coupled system, as he indicated to be the case with most educational settings. What makes the district loosely coupled is the autonomy each school is granted within the district when it comes to their teacher evaluation structure. This structure is simple in that teachers report either to the school principal or one of several assistant principals. It is solely up to each campus administrator's discretion as to who reports to whom. The district office is not involved at any level unless a teacher is put on an improvement plan. At Castle High School (CHS), the principal would take responsibility for all first-year teachers because she was a mentor prior to becoming an administrator. She used this opportunity to further mentor new teachers and develop their practice. If the principal must assign first year teachers to assistant principal evaluation lists she tended to match content areas between first year teachers and assistant principals' previous instructional

experience.

Although the district in general is a loosely coupled system, it did demonstrate a tightening of organizational structure when it comes to first and second year teachers. In addition to reporting to the principal, all first and second year teachers are also assigned to a district mentor. This relationship is significantly different from the one they have with their principals. First and foremost, it is a confidential relationship with a foundation built upon trust and rapport. As a mentor, it is critical to the effectiveness of the relationship that they establish a strong rapport with their teachers for this is where the most support occurs leading to teachers' self-efficacy in the classroom. (Aguilar, 2013; Knight, 2007; Portner, 2005; Robbins, 2015). Teachers are encouraged to openly reflect upon their practice with their mentor but this is only accomplished through the security they have in their mentor's ability to honor their confidentiality outside of closed-door conversations. The structure between the mentor and teacher would be considered tightly coupled according to Weick (1976) because the instruction of the new teacher is closely observed through frequent conferences and observations.

New teacher academy. A tighter model is seen again in the requirement of first and second year teachers' participation in the district's New Teacher Academy (NTA) upon hire. NTA is a training program for first and second year teachers. Participation is expected and specifically written into their contract; therefore, it is a condition of employment in the district. The NTA consists of a formal structure for meeting weekly with the campus mentor in addition to attending eight professional development workshops that take place after school. First year teachers (called Beginning Teachers, or BTs) and second year teachers (called Evolving Teachers, or ETs) do not report to the

district mentor, nor does the district mentor evaluate their performance. This is the responsibility of campus administration. Rather, the mentor is responsible for assisting the BTs and ETs with accelerating their growth and teaching them how to become a reflective teacher. Even though the NTA program is formal and fully district supported, a confidential relationship is the standard and the mentor is expected to hold firm to this when speaking with school administrators and district personnel.

Current State of Affairs for Mentors

The self-administrating mentor program (since 2014) has proven to be exceptionally challenging for mentors. The burden of creating and implementing BT and ET workshops in addition to the materials required to support the CDC cycle has been exceptionally challenging. The additional burden of high mentor caseloads exceeding the recommended fifteen teachers by as much as eighteen teachers for some mentors, a fairly non-existent training program for newly hired mentors, annual mentor turnover of at least one mentor per year, and lack of PD for mentors has left the mentor department at a severe disadvantage, if not, severely crippled.

Purpose, Rational and Research Question

"The massive scale on which social problems are conceived often precludes innovative action because the limits of bounded rationality are exceeded and arousal is raised to dysfunctionally high levels" (Weick, 1984, p. 40).

Purpose

Training mentors to perform the functions of their jobs is unanimously supported throughout the research on the topic of mentoring; however, the research findings also show training is quite different from one organization to the other, and in most

circumstances, even non-existent (Helman, 2006; Feiman-Nemser, 1996; Gagen & Bowie, 2005; Glazer & Hannafin, 2006; Hobson, Ashby, Malderez, & Tomlinson, 2009; Ingersoll, 2012; Orland, 2001; Parise, & Forret, 2007). The district, unfortunately, is limited in options for mentor training leaving only two: one—creation of a training program for mentors and two—seeking mentor training from the AZ K12 Center, the only local organization currently providing a mentor training program.

Mentor training is quite complex and creation of an innovation for this purpose can be very daunting leading organizational leaders to stall in the development of creating such programs. One of the issues, however, with creating an innovation for new mentor training relates to sustainability. What kind of program can be created that would be valuable and utilized long after the program creator was gone? What kind of program could be implemented with ease that would not require the trainer to be trained in order to train the trainee? In considering these questions, it occurred that this kind of program would need to be easy to manage, nearly self-explanatory, and require little to no training for the trainer. In short, this kind of program would probably be most effective if it was self-directed and could easily be facilitated by either an experienced mentor or the Director of Curriculum and Instruction.

In the end, it was decided that new and experienced district mentors would participate in a two-prong mentor training program. A brief description is provided here with a more detailed explanation to follow in Chapter 3.

Mentor training program: prong one. The first part of the program will be participation in the PLS-MA1 program offered by the Arizona K12 Center (AZK12). It was decided that all mentors, new and experienced, would benefit from participation in

PLS-MA1as it has been three years since any of the mentors participated in any mentor training professional development. The PLS-MA1 program was selected not only because it is the only locally available program but also because district mentors attended several initial professional development workshops with the AZK12 and found them to be comprehensive and educational.

In speaking with the Professional Development Director of AZK12, it was discovered no data had been collected regarding the impact PLS-MA1 has on the self-efficacy of mentors who attend the program. As such, in collaboration with AZK12, this study was designed to collect data regarding mentor self-efficacy, both prior to attendance in the program, and after completion of one semester of participation in the program. Data was collected in the form of surveys and included all participants in the PLS-MA1.

Mentor training program: prong two. Because having a model to follow and emulate is beneficial for building self-efficacy, the second part of the mentor training program consisted of observations and conferences with a peer mentor. For new mentors, observations occurred slightly differently than returning or experienced mentors. New mentors conducted observations based on a gradual release of responsibility with the bulk of senior-to-new mentor interactions greatest in the first week of the new mentor's employ. During the first week of employment, new mentors had four full days of shadowing each mentor for one complete day to see the day-in-a-life of a mentor, as well as guide them gently into their position. After the first week of employment, the mentor then fell into the same cycle as returning mentors which consisted of observing their peers once per quarter with the idea being to "coach the coach." Observations for both

new and experienced mentors consisted of observing the conference-data-conference system of a typical mentoring interaction.

As this is a new innovation for the district, data was collected to determine the impact it had on mentor self-efficacy. And, since this is a district specific innovation, data was collected from district mentors in the form of interviews.

Rationale for Study

More and more research studies have been done on the impact mentoring has on improving the practice of new teachers, however, very little research has been done on the impact of training mentors to do the job of mentoring (Feiman-Nemser, 1996; Hobson et al, 2009; Orland, 2001; Parise & Forret, 2007) making it very clear this is an area of research focus in which there is a need for mentors to function effectively and successfully.

Further, while conducting research on the topic of teacher mentors, few studies could be located regarding teacher mentor self-efficacy. Plenty of research exists on teacher self-efficacy, even associated with support from teacher mentors, however, few studies relating to mentor self-efficacy were found which are explored in greater detail in chapter two. Because of minimal research, there is a great need for more studies of this nature. This study will add to the limited availability of literature providing new information on this topic.

Research Questions

The value of mentoring is understood yet there are few resources available to improve mentor effectiveness and efficacy which presents the problem of practice. Therefore, the purpose of this action research study is to examine the influence of the

Arizona K12 Center's Professional Learning Series: Mentor Academy Year One on mentors' perceptions of mentoring and on their self-efficacy as mentors, as well as, the impact mentor shadowing has on district mentors. The following research questions are addressed in this study:

1. How does participation in the Arizona K-12 Center's PLS-MA1 teacher mentor training impact teacher mentors' self-efficacy?
2. How does participation in mentor shadowing impact the self-efficacy of teacher mentors?

Conclusion

Since determining the mentoring program to be an important aspect in pursuit of the district's vision, more than ever the need for a mentor training program is of paramount importance. The current lack of support in this area creates an environment where mentors struggle to build their knowledge and skill set which negatively affects their self-efficacy and delays their ability to positively impact beginning teachers. Through the examination of the influence of a structured, research-based mentor training program on accelerating mentor practice and building mentor capacity I intend determine how mentor self-efficacy is impacted.

CHAPTER 2

MENTOR TRAINING

"Providing organized, comprehensive, mentorship training is an appropriate way for the profession to begin to address the problem of teacher retention" (Gagen & Bowie, 2005, p. 45).

Theoretical Perspectives and Frameworks

Introduction

Mentor training is an issue in any mentoring relationship (Jones & Straker, 2006; Childre &Van Rie, 2015; Klieger & Ster-Levinz, 2015). Mentor teachers often do not come to the position with formal training as a mentor, instead relying solely upon their own experiences as a teacher as well as that of their peers (Jones & Straker, 2006) to determine how best to assist their mentees. This lack of training on how to mentor influences how mentors, and mentees, view the mentor's effectiveness in serving the needs of their trainees (Klieger & Ster-Levinz, 2015). Further, it prevents the mentor from being reflective about their practice (Jones & Straker, 2006) limiting the potential growth and subsequent effectiveness of the mentor. Several studies focusing on mentoring suggest that quality, on-going mentor training is paramount to creating effective mentoring relationships for both the growth of the mentor and, more importantly, the growth of the new teacher (Jones & Straker, 2006; Childre &Van Rie, 2015; Klieger & Ster-Levinz, 2015).

This chapter will discuss two theories relevant to mentor training with the chapter organization consisting of two parts—theoretical definitions followed by studies relating to the importance of mentoring and mentor programs. The two theories to be discussed

are Bandura's Self-Efficacy Theory and the Collaborative Apprenticeship Model. A review of studies relating to mentor programs to include successful programs as well as the lack of studies relating to mentor self-efficacy will conclude the chapter.

Self-Efficacy Theory

Self-efficacy theory has its foundation in social cognitive theory which Arthur Bandura later expanded upon with his social learning theory. Bandura did not believe there were adequate explanations for describing a person's ability to learn and the motivations behind it; rather, through Bandura's social learning theory he postulated that humans learned through social interactions and observation of social interactions (Bandura, 1971). Self-efficacy, a major component of social cognitive and social learning theories, deepens the understanding for a person's actions because a person's self-efficacy determines their choices and actions.

In 1977, Bandura proposed a model of self-efficacy of deriving information gained from four main origins of data: "…performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (Bandura, 1977, p. 191). Later through continued research and studies, Bandura (1993) refined self-efficacy theory as an individual's actions being affected by four factors: "…cognitive, motivational, affective, and selection processes" (p. 188). He further stated, "Efficacy beliefs influence how people feel, think, motivate themselves, and behave" (Bandura, 1993, p. 188) indicating that as we get better through effective practice and performance we experience changes in our self-efficacy (Bandura, 1977).

Further, changes in our thinking and our actions come about more readily as we experience success (Bandura, 1977). Our self-efficacy is determined by the level of our

success. If we do well when comparing it to our expectation of behavior, our self-efficacy will be higher than if we do lower than our expectations (Bandura, 1977). And, if we see continued success, we are even more likely to better cope and continue to persist in difficult situations. If we believe we will do well eventually, even if we do not do well initially, we are more likely to attempt a challenge, as well as, persist at it.

The first factor identified by Bandura (1977), cognitive process's impact on self-efficacy, is best demonstrated by a 1982 study conducted by Collins in which math students were assessed with the study focusing on perceived abilities. Students with higher perceptions of their abilities did better because they were more inclined to persevere more than those who had lower perceived abilities (Bandura, 1993; Collins, 1982). This supports Bandura's statement, "The stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them" (Bandura, 1993, p. 118).

Motivational processes also influence self-efficacy (Bandura, 1993). A person's motivation is governed by their belief in their ability to perform.

> Most human motivation is cognitively generated. People motivate themselves and guide their actions anticipatorily by the exercise of forethought. They form beliefs about what they can do. They anticipate likely outcomes of prospective actions. They set goals for themselves and plan courses of action designed to realize valued futures. Forethought is translated into incentives and appropriate action through self-regulatory mechanisms (Bandura, 1993, p. 128).

If one believes they can achieve success it is likely they will succeed in their efforts. Additionally, if there is a viable reward to their actions people are more likely to be

motivated to act. Further, if learned behaviors are viewed as positive, one is more inclined to repeat the behavior, yet if they are negative, one will most likely deviate from these behaviors (Grusec, 1992).

Affective process "…is the emotional mediator of self-efficacy belief" (Bandura, 1993, p. 132). Affective processes relate to the emotion assigned to a person's self-efficacy belief. One will become very anxious if they doubt their ability to control threats in their environment giving rise to fear which hinders their ability to perform; however, if one believes they can manage threats, although they may be anxious, it will not adversely affect their performance and self-efficacy (Bandura, 1993).

Finally, selection process plays a role in self-efficacy determination. Assessed self-efficacy impacts selection decisions made. A person with a higher level of self-efficacy will select more challenging opportunities. Additionally, they will take the means necessary to prepare themselves for this challenge whether it involve additional education or improved skills developed through practice (Bandura, 1982, 1993). This is not necessarily the case for a person with a lower self-efficacy. In short, the higher a person's self-efficacy the more they will take on challenges and prepare themselves for those challenges. The lower a person's self-efficacy the less they will choose events that could potentially prevent their successful performance (Bandura, 1982; Bandura, 1993).

Bandura (1977) summarized self-efficacy theory best as follows:

> Self-efficacy judgments, whether accurate or faulty, influence choice of activities and environmental settings. People avoid activities that they believe exceed their coping capabilities, but they undertake and perform assuredly those that they judge themselves capable of managing.

> Judgments of self-efficacy also determine how much effort people will expend and how long they will persist in the face of obstacles or aversive experiences. When beset with difficulties people who entertain serious doubts about their capabilities slacken their efforts or give up altogether, whereas those who have a strong sense of efficacy exert greater effort to master the challenges (Bandura, 1982, p. 123).

Cognitive and Collaborative Apprenticeship

In traditional apprenticeship, a person of mastery performs an activity while an apprentice observes the master at work. Often while the master works, he narrates the task taking place while the apprentice witnesses the targeted activity from start to finish. This opportunity allows the apprentice to get the entire picture prior to attempting to complete the activity herself (Collins, Brown & Holum, 1991). When the apprentice initiates the activity, the master observes the work of the apprentice, coaching and guiding according to what is dictated for the needs of each particular apprentice and the master's methods of coaching.

Coaching is the foundation of this traditional apprenticeship model (Collins et al., 1991) hence, it makes sense that the foundation for cognitive and collaborative apprenticeship would be coaching, as well. What makes cognitive and collaborative apprenticeship unique from traditional apprenticeship can be categorized into three concepts.

The first is that the coaching for cognitive and collaborative apprenticeship must bring to the forefront the thinking behind the action. The apprentice must be able to "see"

the metacognition behind the master's actions. This is accomplished through the narration of the coach's actions for the sake of the apprentice.

Second, whereas traditional apprentices work with activities that are specifically related to some task of the "real world," the activities of the cognitive and collaborative apprentice are related to abstract ideas that are difficult to correlate to the "real world." For example, traditional apprentices can be found performing as plumbers working to fit pipes together to stop a leak or as electricians running wire in a home to setup an electrical panel for the home's electricity. Examples of cognitive and collaborative apprentices would be a junior vice-president working under the tutelage of a company president at General Motors or a junior accountant working with a senior accountant when auditing an organization's finances.

Finally, traditional apprentices utilize skills developed in specific settings. For example, the plumber considered in the previous paragraph will only be able to utilize the skill of fitting pipes together in situations where this would be required. A plumber will not be fitting pipe if they are wiring a house. Cognitive and collaborative apprentices, however, must take developed skills and be able to meld, mold and transfer them into different settings and contexts (Collins, Brown, & Holum, 1991). When considering the example of General Motors, the skills required of a junior vice-president are transferable to organizations similar to General Motors, or altogether different, such as Apple; however, since these are two different organizations the junior vice-president will be required to adjust and adapt his knowledge to the new product line and technology associated with this product line.

Glazer and Hannifin (2006) introduced a collaborative apprenticeship model derived from these structures creating a framework of reciprocal mentoring for teachers to mentor and coach their peers in the use of instructional strategies and practices. Figure 1 provides a visual representation of the mentee's progression through the model.

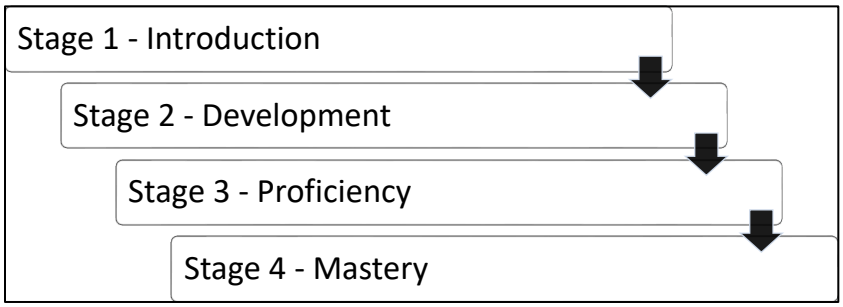


Figure 1. Apprentice stage of development from introduction to master.

The collaborative apprenticeship model consisted of four stages of apprenticeship training beginning with an introduction to a specific instructional strategy or practice. The second stage was that of development where the mentor used the ideas of traditional apprenticeship to help the mentee develop the instructional strategy at the center of attention. Proficiency was the third stage of the process. Here, the mentor relinquished control over the instructional strategy to the mentee, allowing the mentee to develop a new lesson utilizing or modifying the instructional strategy learned. Finally, in the last stage of mastery, it was the mentor's turn to watch the mentee and even potentially learn new skills developed by the mentee. The stages are meant to escalate in complexity with the novice teacher moving from one stage into the next until they reach the pinnacle of their practice or desired instructional strategy, at which point the cycle would continue with the novice teacher becoming the mentor and coaching another teacher on the learned

strategy, or even the same teacher on a revised version of the same strategy or an altogether different strategy (Glazer & Hannafin, 2006).

The cognitive and collaborative apprenticeship model is a useful lens for which to view possible interventions addressing mentor training.

The Importance of Mentoring

Previous research on mentoring has suggested that the practice offers many benefits for new teachers, all of which can be summarized under the idea of providing a means of support for first year teachers in a very stressful overwhelming indoctrination into the profession. In a review of the available literature on the topic of mentoring, Ingersoll (2012) determined that mentoring programs not only offer support for teachers but they help new teachers become proficient educators more quickly and reduce teacher turnover. Ingersoll (2012) also found that one third of first year teachers left the profession within their first year of teaching and nearly half of all teachers left the profession within the first five years. Of surveyed teachers who left the profession, they gave their primary reason for doing so as the limited level of support they receive from their school superiors (Ingersoll, 2012). This number of teacher attrition could potentially be reduced to something more manageable if new teachers had a safe place to share concerns and an experienced advisor from which they could seek guidance.

Numerous benefits have been cited for new teachers who have the opportunity to work with a mentor. McIntyre and Hagger (1996) as cited in Hobson et al. (2009) listed the following benefits to mentees, "…reduced feelings of isolation, increased confidence and self-esteem, professional growth, and, improved self-reflection and problem-solving capacities" (Hobson et al., 2009, p. 209). Research further purported there is an increase

in the first-year teacher's ability to handle classroom behavior issues, manage their time and work requirements more effectively, and, even more importantly, assist teachers with enculturation by helping them make the transition into the teaching world of their new school through acquisition of the norms, expectations, and processes and procedures at their school (Hobson et al, 2009).

Because mentoring relationships have proven to be effective they have become more prevalent in educational settings, however, this has brought with it a resulting concern. Mentoring programs are put into place without providing new, or existing, mentors with the training and support *they* need. Hobson et al. (2009) found the main reason for poor mentoring is poor mentor training. Mentors are not adequately prepared to support the needs of first year teachers which in turn means that first year teachers are not getting the support they need. To have an effective mentor program, mentors should participate in mentor training programs structured around mentoring strategies involving collaboration and interaction with peer mentors (Bullough, 2005).

In Support of Mentor Programs

Available research studies speak to providing new teachers with support through mentoring because of its effectiveness in increasing teacher proficiency and reducing turnover (Gagen & Bowie, 2005; Ingersoll, 2012). In a review of research on teacher induction programs, Ingersoll (2012) found there to be a positive correlation between new teachers who participate in mentoring programs and the length of employment of new teachers. Gagen and Bowie (2005) wrote that a structured, detailed, all-encompassing mentor training program would be a strong manner in which to address teacher turnover tying the high attrition rate of teacher turnover to a lack of mentoring

directly stating that effective mentoring could have an impact on the 12% of teachers who leave the profession their first year, the 51% of teachers who leave within five years and the over 60% who leave the profession within seven years.

The operative word here is "effective." Effective mentoring, according to Gagen and Bowie (2005) is only accomplished through the provision of mentor training programs that provide the mentor with the skills necessary to adequately mentor new teachers, skills that are directly related to the first years of teaching. For example, some mentors cannot support beginning teachers with strategies incorporating the use of new technology because they lack this knowledge base (Gagen & Bowie, 2005). Research-based instructional strategies are extremely important in the development of student growth (Marzano & Simms, 2012) and having the ability to share new strategies utilizing technological innovations would be a great advantage for mentors.

Mentors further stated they felt a strong need for support (Gagen & Bowie, 2005). Many mentors were not ready for the needs of beginning teachers because they were unsure of the specific details of their jobs, lacking the knowledge and awareness of expectations they believed were necessary for them to adequately perform their job of mentoring new teachers (Gagen & Bowie, 2005). Through data collected in their study, Gagen and Bowie (2005) found that mentors believed they would and could perform better if they had training that communicated specifically what they were to be doing in the performance of their job. For example, mentoring first year teachers at the beginning of the school year requires teacher mentors to focus on building a strong rapport through providing new teachers with resources, making copies, and helping them set up their classrooms. Building a rapport is critical to everything else related to mentoring (Hobson

et al., 2009). It is this rapport that will allow mentoring to actually occur throughout the course of the year. This kind of knowledge and skill is critical for mentors.

Data from Gagen and Bowie's (2005) study of sixteen participants found mentors expressing a need for training related to the following four topics:

1. 93.8% of participants reported a need for training on instructional strategies in numerous content areas.
2. 62.5% of participants reported a need for training in lesson planning.
3. 62.5% of participants reported a need for training on mentor job duties and expectations.
4. 56% of participants reported a need for training in classroom management strategies, as well as, procedures.

Hobson et al. (2009) conducted "…a review of the international research literature on mentoring beginning teachers" (p. 207) finding strong support relating to the importance of mentor training. The purpose of their review was to determine what information was available regarding the mentoring of teachers. Initially, they found very little research relating to mentoring. Out of 980 studies investigated only 170 related to "…empirical research findings on beginner teacher mentoring" (Hobson et al., 2009, p. 209).

Through their investigation, they concluded there was overwhelming evidence that mentoring of beginning teachers is nearly the most effective means of support. Not only does mentoring aid beginning teacher growth but it also raises beginner teacher independence and self-esteem. The greatest influence appears to be on the beginning teacher's ability to manage the classroom, as well as, manage their schedules and

responsibilities. To a lesser degree, mentoring also allows beginning teachers to acculturate into the educational community in which they work (Hobson et al., 2009).

Hobson et al. (2009) found extensive evidence for support of the mentors themselves. While nothing was found regarding mentor self-efficacy, the vast majority of literature indicated mentors felt they actually grew as a result of mentoring because it allowed them to reflect on and critique their own discipline. Further, they felt they grew as communicators because of the mentoring relationship. Finally, mentors attested to gaining new instructional skills and strategies through a deepening of their pedagogical knowledge through their mentoring (Hobson, et al., 2009).

Hobson et al. (2009) also found that researchers identified several factors impacting the effectiveness of mentors. The most significant factor was associated with mentor training which consisted of depth and breadth of knowledge and skills designed to allow the mentor to uncover their mentoring personalities. Training programs that went past simply shadowing and observing a senior mentor where the mentor trainee is immersed in the background knowledge and research in the practice of mentoring provide much needed support and direction in the actual craft of mentoring. Hobson et al. (2009) goes so far as to say training mentors should be paramount to all other considerations relating to "…support and professional development of beginning teachers" (p. 214) recognizing this is the single most effective means of developing the professional prowess of beginning teachers.

Achinstein and Athanases (2006) concluded that to ensure new teachers become self-reflective practitioners they must develop a strong sense of professionalism and commitment to their work, and develop proficiency in instructional practice. This is

generally the primary directive for teacher mentors and, according to Achinstein and Athanses (2006), mentors can only be effective in this directive if they are able to participate in comprehensive mentor training programs.

They further stated mentor training programs allowing newly hired mentors to develop proficiency meant that these new mentors should be exposed to case studies where they can discuss the variety of methods available for handling these situations (Helman, 2006). They should also have a chance to act out mentor-mentee conversations where they could obtain feedback from experienced mentors further allowing them to learn from modeled situations (Helman, 2006). Additionally, new mentors should have the opportunity to participate in discussions with experienced mentors where they can share positive and negative experiences and seek guidance for handling similar situations in the future (Helman, 2006).

Development of the mentor's own reflective practice is necessary for perfecting their skills just as it is necessary for new teachers in the development of their instructional practice. Kolb (2005) states, "In the process of learning one is called upon to move back and forth between opposing modes of reflection and action and feeling and thinking (p. 194)." In addition, teacher mentors "…need to employ methods that support reciprocity in their collegial environment—opportunities to interact with and learn from one another" (Glazer & Hannafin, 2006, p. 180). A comprehensive mentor training program will allow all mentors the opportunity to work together, learn from each other, and reflect and act upon their feelings and thoughts, thereby growing and developing in their practice, ultimately having this same effect on new teachers.

Effective Mentor Programs

Mentor training programs currently utilized. Mentor training programs for mentors working with youth are fairly prolific; however, that is not the case for teacher mentor training programs. As such, options for consideration are generally limited to one viable solution—searching for an effective innovation and adapting it to the school district's organization. A second option would be to create a teacher mentor training program, however, this would be a massive undertaking for already overtaxed school districts.

Finding a mentor training program that could be utilized or adapted to a district's organization is preferred and would be considered a positive deviance approach towards solving this issue. According to positive deviance, instead of bringing in an outside agency to create a mentor training program, research what is already working within the community or how other similar communities are handling similar problems (Rosenberg, 2103). What makes this approach unique is that instead of having an outsider bring in their own innovation, locals create an innovation based upon what is already successful and leaders push it into their community to address the problem at issue (Rosenburg, 2013).

An example of a positive deviance approach to mentoring is evidenced by looking at a study conducted by the Oregon Department of Education (2014). The Oregon Department of Education (ODE) provides assistance for school districts that implement mentoring programs for beginning teachers. In the 2013-2014 school year, fifteen mentor programs representing sixty-two school districts met eligibility requirements for state funding. During 2014, 993 beginning teachers and 280 beginning teacher mentors were

surveyed regarding the effectiveness of the Oregon Mentoring Program (OMP) according to the program's four goals of (a) improving student achievement, (b) providing teachers with effective instructional strategies, (c) improving teacher and administrator retention, and (d) increasing leadership performance of educators.

Of the 993 teachers, 737 beginning teachers completed the survey. For the participants, 85% attributed "quite a bit" (Oregon Department of Education Teaching Research Institute, 2014, p. 8) or "a great deal" (p. 8) of their achievement as a beginning teacher to their teacher mentors. Relating to their ability to positively affect the learning capabilities of their students, 76% of surveyed beginning teachers felt there was a direct impact as a result of working with their teacher mentors. Regarding their ability to collaborate with their peers, 52% of beginning teachers felt their success was directly related to their teacher mentors. Finally, 42% of beginning teachers indicated their ability to communicate with parents was positively impacted by working with their teacher mentors.

In 2015, ODE completed a retention analysis study of two groups of beginning teachers, those within an OMP and those who were not in an OMP. During the 2010-2011 school year, 435 beginning teachers participated in an OMP. Teachers in an OMP demonstrated a 13% higher retention rate than beginning teachers who were not in the mentoring program, or 77% of all beginning teachers in an OMP continued into the 2012-2013 school year while 64% of all beginning teachers who were not in an OMP continued into the following year (Oregon Department of Education Teaching Research Institute, 2015). Further, when ODE conducted a statewide retention analysis over a three-year period they found there was a 6% higher retention rate for teachers who were

in an OMP. Table 1 demonstrates their findings (Oregon Department of Education Teaching Research Institute, 2015).

Table 1

Percentage of Beginning Teachers Still Teaching One Year Later

	Mentored Beginning Teachers	All Beginning Teachers in Oregon
2010-2011		
% Retained	77%	64%
2011-2012		
% Retained	80%	80%
2012-2013		
% Retained	87%	82%

Note: Adopted from Oregon Department of Education Teaching Research Institute 2015.

Studies conducted by ODE demonstrate the effectiveness of a mentoring program for not only improving teacher effectiveness but especially for improving teacher retention. As this is the second of two research questions driving this study, ODE's work supports this research study.

Both options, positive deviance and creating a district specific program, would be a way of implementing a mentor training program. In fact, they could both be utilized concurrently; however, there is a lack of personnel and time to create our own mentor training program thereby eliminating that option. As such, positive deviance appears to be a viable solution, especially if a program can be found which is already working within the community other districts may be utilizing. Fortunately, just such a program exists through the Arizona K12 Center (AZK12) as has been discussed in the previous chapter. Further, the AZK12 has a series of mentor training workshops in support of both new and experienced teacher mentors offering extensive training opportunities.

Studies (or lack thereof) of teacher mentor self-efficacy. As addressed in the previous section, pervasive support exists attesting to effectiveness of mentoring programs as well as training and efficacy of mentors in settings other than education; however, only one study was located specifically related to teacher mentor self-efficacy.

Sudweeks (2005) created a self-efficacy instrument "…developed to measure mentor teachers' self-efficacy with the roles and responsibilities of mentoring" (p.1). Data regarding the efficaciousness of teacher mentors obtained from the instrument was not reported rather, the instrument itself was evaluated. Through exploratory factor analysis, principal components analysis, SPSS reliability procedures, and Cronbach's Alpha coefficient estimates, Sudweeks (2005) determined that only six of the thirty-five items on the survey loaded on only one construct—feedback. As such, he found the survey instrument to be only reliable and valid for determining teacher mentor self-efficacy on their perceived abilities to provide feedback to their mentors; however, Sudweeks (2005) suggests more validation is needed for the instrument.

According to Sudweeks (2005), the six items had an internal consistency reliability of .40 with the instrument explaining 38% of the variance in feedback. Refer to Table 2 for specific items and their factor loads.

Table 2

The Six Items Loading on Feedback from Sudweeks' Survey Instrument

Item	Factor Load
I struggle to have open lines of communication with the novice teachers that I mentor.	.683
I find it difficult to provide appropriate feedback when conferencing with novice teachers.	.561
I believe I am not very effective in pointing out a novice teacher's weaknesses.	.549
When a novice teacher has difficulty implementing a management plan, I will usually be at a loss as to how to help them implement a plan.	.409
The professional inadequacies of a novice teacher cannot be overcome by the mentoring I provide.	.403

Note: Adapted from Sudweeks 2005.

The single factor may be a result of confusion regarding the actual definition of teacher mentor. As such, Sudweeks (2005) pushes for a "…common understanding…" (p. 4) of what it means to be a teacher mentor indicating no mentor self-efficacy measurement tool will ever be effective in measuring what it is intended without this definition. The six items that loaded were all written as reverse coded item (Sudweeks, 2005). The author wrote this might be an indication that positive items function differently than negative items; yet, it could not be assumed all negatively coded items would load similarly nor could it be assumed had these six items been written positively they would still load in the same manner on the same construct.

Lastly, Sudweeks (2005) indicated that the scale used—ranging from 1-4, strongly disagree to strongly agree—may not have been broad enough to accurately measure teacher mentor self-efficacy. He recommended enlarging the scale to 1-5 (strongly disagree to strongly agree; Sudweeks, 2005).

Sudweeks (2005) six items on feedback piloted in cycle one of this study. I did, although. take Sudweeks (2005) suggestion to create a larger scale especially after

reviewing Bandura's teacher self-efficacy instrument (Bandura, undated) and the Teacher's Sense of Efficacy Scale of Tschannen-Moran and Woolfolk-Hoy (2001). Both scales use 1- 9 "nothing" to "a great deal."

Finally, the lack of research conducted on teacher mentor self-efficacy leaves a huge void in this body of knowledge. This action research study adds to the body of knowledge on teacher mentor self-efficacy.

Conclusion

Training for teacher mentors is a necessity for any experienced teacher to become a mentor. Districts have several options for implementing mentoring programs; however, this is not the case for implementing teacher mentor training programs. The most effective mentor training program may likely come from experienced mentors themselves. Self-efficacy theory might provide a foundation for mentor training where mentors have an opportunity to do as they learn and receive immediate feedback (Bandura, 1971). The cognitive/collaborative apprenticeship provides further support for a framework of mentors training mentors. As cited in Glazer and Hannafin (2006), "…teachers need to employ methods that support reciprocity in their collegial environment—opportunities to interact with and learn from one another" (p. 180). Finally, Kolb (2005) states, "In the process of learning one is called upon to move back and forth between opposing modes of reflection and action and feeling and thinking." A mentor training program for newly hired mentors led by experienced mentors allows them both to grow in their practice, and reflect and act upon their feelings and thoughts.

CHAPTER 3

METHODS

Introduction

This action research study was being conducted to address the problem of practice related to the lack of training for teacher mentors within a secondary high school district to be called Sun Valley (pseudonym for actual school district). Upon hire, new mentors got very little specific training to educate them about the expectations and protocols for performing their job. Experienced mentors also lacked available opportunities for mentor professional development activities. A multifaceted teacher mentor training program was being created consisting of participation in the Arizona K12 Center's (AZK12) Professional Learning Series: Mentor Academy Year One (PLS-MA1) and mentor shadowing of another mentor each semester. A mixed methods research study was conducted to determine the impact of the intervention on mentor self-efficacy.

Research Design

Mentor experiences were studied using semi-structured interviews and a survey instrument. Herr and Anderson (2015) describe action research as an investigation conducted "…*by* or *with* insiders to an organization or community…" (p. 3) which is intentional and consistent and supported by data. Mertler (2014) characterizes action research as a systematic process of gathering data which is reflected upon and utilized to impact one's practice with the goal being to make improvements. Both researchers agree that action research is systematic and intentional (Herr & Anderson, 2015; Mertler, 2014); however, Mertler (2014) emphasized that action research is a process whereby the

researcher seeks to produce immediate resolution to issues central to the researcher's locus of control.

Mertler (2104) provides several models of action research; however, all of them have the foundation of being a continuous cycle of action as demonstrated by Figure 2 (Herr & Anderson, 2015; Mertler, 2014). Typically, the beginning point commences with planning (Herr & Anderson, 2015) although this may not always be the case. For example, teachers may be prompted to initiate an action research study based upon an unsuccessful lesson indicating the reflective stage of the action research process. Regardless of where one is in the process, it is the act itself whereby growth takes place because the act creates reflection by nature. Mertler (2014) states therein lies the most important piece of action research—reflection.

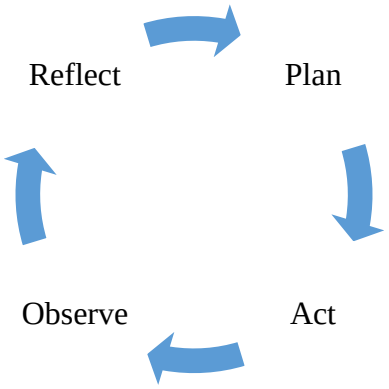


Figure 2. Action research is a continuous cycle of planning, acting, observing, and reflecting.

Mertler (2014) attests to action research being an effective method of practice leading to improvement for educators as it requires them to look at their practice critically and reflect upon it. Further, he believes because of action research "…teachers are encouraged to become continuous, lifelong learners in their classrooms with respect to

their practice" (Mertler, 2014, p.13). As such, it makes sense that teacher mentors would also benefit from action research especially since the goal of the mentoring is to create reflective thinking (Costa & Garmston, 2016). This chapter is comprised of the following cycles: the zero cycle, the first cycle and the dissertation cycle. Each cycle includes information on: (a) Intervention, (b) Participants, (c) Instruments, (d) Procedures, and (e) Data Analysis for cycle zero and one demonstrates the applicability of a mixed-methods action research for this study with the results are also presented here.

Setting

This research study takes place in Phoenix, Arizona. Data for cycle one and the dissertation was collected from a total of forty-two mentor teachers participating in professional development received through the AZK12 located in downtown Phoenix. Mentor teachers travel from various locations statewide to participate in the PLS-MA1 series therefore participant mentors may work as teacher mentors anywhere in the state of Arizona.

The mentor team in a small high school district in a southwestern suburb of Phoenix was also studied. This school district will be referred to as Sun Valley for the purposes of this study. There are five high schools in Sun Valley consisting of approximately 2400 students and 100 teachers at each of the five schools. Each high school has a dedicated full-time mentor that works with all first and second year teachers. Despite assignment to individual campuses, teacher mentors report directly to the Director of Curriculum and Instruction (DCI) with the DCI reporting to the district Assistant Superintendent of Curriculum and Instruction. The close reporting structure to the superintendent provides teacher mentors with the backing of the superintendent

ensuring the full support of school principals. When fully staffed the mentor team typically consists of five mentors.

Demographics for students in Sun Valley School District, which has a largely Hispanic population, is broken down in Table 3.

Table 3

Sun Valley Demographics

Fiscal Year	2015	2016	2017
Hispanic	73.9%	75.6%	76.9%
Asian	1.9%	1.9%	1.8%
Black or African American	10.5%	10.0%	9.7%
American Indian or Alaskan Native	1.3%	1.2%	1.0%
White	10.4%	9.2%	8.5%
SPED	10.5%	10.5%	10.4%
ELL	2.0%	2.3%	2.5%
Free or Reduced Lunch	31.0%	64.4%	65.2%
Gifted	3.1%	2.8%	2.5%
Homeless	1.0%	1.0%	1.6%

Note: Adapted from Sun Valley 2011-2016 Ethnic Study.

Illustrated in Table 4 are Sun Valley's graduation and dropout rates according to their district demographics.

Table 4

Sun Valley (SV) Graduation and Dropout Rates

Demographic		Overall	Hispanic	Black or African American	American Indian or Alaskan Native	Asian	White	SPED	ELL	Free or Reduced Lunch
Grad Rates	2014	81%	80%	81%	70%	92%	85%	69%	24%	82%
	2015	88%	88%	87%	82%	94%	87%	80%	22%	90%
	2016	89%	89%	90%	80%	94%	90%	83%	38%	90%
Dropout Rates	2014	2.3%	2.2%	2.2%	5.8%	0.8%	2.4%	3.2%	3.6%	2.2%
	2015	2.3%	2.3%	2.2%	5.1%	2%	2.3%	3.3%	4.3%	1.7%
	2016	1.8%	1.7%	2.3%	3.6%	1.3%	2.3%	1.5%	3.8%	-

Note: Adapted from Sun Valley 2010-2016 Dropout Rate Study – ADE and Graduation Rate Study.

Lastly, the most current academic label given for Sun Valley was a B in 2014 (Arizona Department of Education, 2014). State AzMERIT average scores were not available for 2015 therefore no comparison data were available. State averages were available for 2016 which showed district AzMERIT scores significantly lower than the state average (Sun Valley, 2017). The district's previous two years' AzMERIT scores are displayed in Table 5.

Table 5

Sun Valley AzMERIT Scores

	2015		2016	
	State	District	State	District
Geometry				
Failing	-	89%	65%	84%
Passing	-	11%	35%	16%
Algebra I				
Failing	-	95%	64%	94%
Passing	-	5%	36%	6%
Algebra II				
Failing	-	90%	71%	92%
Passing	-	10%	29%	8%
English 9				
Failing	-	84%	65%	80%
Passing	-	16%	35%	20%
English 10				
Failing	-	85%	71%	87%
Passing	-	16%	30%	13%
English 11				
Failing	-	84%	70%	87%
Passing	-	15%	30%	13%

Note: Adapted from Sun Valley AzMERIT Scores 2017

Cycle Zero

Participants

Sun Valley teacher mentors. The 2015-2016 mentor team who participated in the cycle zero investigation consisted of four females, including the researcher, and one

male. All five teacher mentors were employed with Sun Valley in a teaching capacity prior to becoming a teacher mentor. Years of service with the district prior to becoming a mentor were as short as seven years of teaching experience to as long as twenty-five years with (M = 17, SD = 6.72). Demographic data is provided in Table 6.

Table 6

2015-2016 Sun Valley Teacher Mentors with Years of Teaching Experience, Content Area Taught, and Years of Mentoring Experience

Participant	Gender	Yrs. Teaching Experience	Content Area	Yrs. Mentoring Experience
Researcher	F	15	English	4
TM1	F	17	JAG	3
TM2	F	5	Math	2
TM3	M	25	Social Studies	.4
TM4	F	7	Science	.4

Years of experience and training as a district mentor also varied by teacher mentor. The district mentor with the longest term of employment began in the position in January 2012. For each of the following two years, an experienced mentor resigned allowing for a new teacher mentor to fill the position. In 2015, two experienced mentors resigned requiring the hiring of two new teacher mentors. Thus, none of the teacher mentors came into the position with any previous mentoring experience for cycle zero of this project.

Of the five mentors, three mentors were Caucasian (one male), one female was Asian and one female mentor was Hispanic. Age ranges for the teacher mentors spanned from 30 to 55 (M = 41.40, SD = 10.95). None of the teacher mentors entered the

profession with an education degree. Rather, all teacher mentors became teachers as a second career after completing post-secondary educational programs allowing them to achieve state certification. One teacher entered as an athletic trainer subsequently becoming a science teacher. Another entered as a social studies teacher after first coaching various extra-curricular sports. One mentor entered the teaching profession through the career and technical education (CTE) pathway teaching in the Jobs for America's Graduates (JAG) program. The fourth district mentor entered education through the Teach For America (TFA) program. Finally, the researcher entered the profession after completing a post-secondary education program earning an elementary teaching certificate.

Training for teacher mentors varied, as well. The researcher received training through the TIP program through the spring 2012 school year. The following two years, support through TIP was at a greatly reduced capacity in the district. PD for teacher mentors through TIP at that time consisted of one-to-one training with a TIP representative on a limited basis. Ultimately, the TIP program was eliminated so the final three mentors hired did not received any specific mentor training. During the 2015-2016 school year, two teacher mentors participated in a Cognitive Coaching seminar, which is still offered, through the AZK12. The seminar is specifically designed to teach participants the art of facilitating conversations directed to create reflective thinkers (Arizona K12 Center, 2017).

Role of researcher. In this study, the researcher assumed the role of researcher but also participated in the action research study. In addition to the professional development opportunities identified in the previous section, the researcher participated

in the following five additional PD workshops: National Board Certification Pre-Candidacy Classes in 2013-2014, Cognitive Coaching and National Board Fall Institute in 2014-2015, Cognitive Coaching Proficiency Module: Using Data to Mediate Thinking Spring 2017 and PLS-MA1 in 2016-2017.

Intervention

Initially, the intervention under study involved creation of a district mentor training program in which new teacher mentors would participate on a quarterly basis. This part of the program (cycle zero) involved a component where new teacher mentors shadowed experienced teacher mentors within Sun Valley; however, recognizing a void in professional development for teacher mentors during the 2015-2016 school year, the district incorporated mentor shadowing into their practices as a means of support for all their teacher mentors. This program was used to determine the impact teacher mentor shadowing had on teacher mentor self-efficacy.

At first, the idea was for all five mentors in Sun Valley to observe each other during a conference-data collection-conference cycle at least once during the school year. This turned out to be a challenge due to scheduling for all parties involved. As such, teacher mentors were tasked with just shadowing two of their peers twice during the school year—once per semester—without trying to observe a complete conference-data collection-conference cycle. The shadowing experience involved observing a peer mentor in conference with a beginning teacher. If mentors could coordinate shadow experiences that allowed for observations of the entire CDC cycle they were free and even encouraged to do so. At a minimum; however, they were expected to, and did, complete one shadow visit per semester during cycle zero.

Instrument

Semi-structured interviews. Semi-structured interviews were selected as the means for collecting data in cycle zero. Because this type of interview allows participants to expand upon their answers freely according to their experiences this was an effective manner to gather preliminary data which could be used to establish the structure of the action research study and narrow the focus of the study (Brinkmann & Kvale, 2015; Flick, 2014). Additionally, according to Flick (2014) semi-structured interviews serve more to provide direction for the parties involved. The author described it more as a conversation which "…attempts to understand the world from the subjects' point of view, to unfold the meaning of their experiences, to uncover their lived world…" (Flick, 2014, p. 3). Both Brinkmann and Kvale (2015) and Flick (2014) agree that the interviewer guides the participant through the topic of the interview; however, they do not impress upon the interviewee her/his own position upon the topic. Rather, the purpose is to use the interview as a means to obtain knowledge (Brinkmann & Kvale, 2015).

Based upon the researcher's experiences as a first-year mentor, seven interview questions were generated. The interview questions are presented in Table 7.

Table 7

Open-ended Interview Questions

Number	Question
1	Tell me about the challenges you have had in transitioning into the role of teacher mentor.
2	What type of job specific training have you received since you have been in the position of teacher mentor?
3	Describe a time when you felt successful in your role as teacher mentor.
4	How did your actions contribute to that success?
5	Tell me about a time you felt inadequate in your role as teacher mentor.
6	What factors contributed to that feeling of inadequacy?
7	What do you need to be an effective teacher mentor?

Open-ended questions utilized in semi-structured interviews not only provided for flexibility in responses from the interviewee but also allowed the interviewer to probe more deeply, concentrating on the focus of the topic (Brinkmann & Kvale, 2015). Probing questions were necessary to dig deeper into the interviewees' thoughts and experiences; however, these were not the only types of questions asked in cycle zero. The researcher also asked clarifying questions to ensure an understanding of the interviewees' implied meaning. A sampling of non-scripted questions taken from each of the four interviews are listed in Table 8.

Table 8

Clarifying Questions Asked During Interviews in Cycle Zero

Participant	Type of Question	Question
TM1	Probing	What advice would you give a new mentor?
TM3	Clarifying	Are you talking about on your part?
TM4	Probing	Was that a department chair training? (In reference to type of training received prior to assuming role as teacher mentor.)
TM4	Probing	So, you said tools. Having tools to pull out of your toolbox. What kind of tools are you referring to?

Limitations. Using semi-structured interviews does not come without some limitations. As the researcher strives to adhere to the structure of the interview, it presents a greater struggle in the progression of the conversation (Flick, 2014). Brinkmann and Kvale (2015) state the interviewer must be very skillful since "…many…methodical decisions have to be made on the spot…" (p. 19). Without familiarity of "…the methological options available…" (Brinkmann & Kvale, 2014, p. 19) the researcher may not be able to uncover information while conversing with the participant. As such, if the researcher flounders in middle of the interview it could have a negative impact on the

information being gathered. Further Brinkmann and Kvale (2015) believe the interviewer should have conceptual knowledge about the topic under investigation. Again, a lack of knowledge could negatively affect the data collected in the interview.

Other issues could contaminate interview data. For example, Brinkmann and Kvale (2015) present the issue of power in the interview. It is possible the interviewee may feel as if the researcher is in the power position (Brinkmann & Kvale, 2015). Brinkmann and Kvale (2014) also caution against considering the interviewer's responses as completely accurate since it is the participant's interpretation of reality; therefore, it is important to consider sociocultural theory (heralded from Vygotsky's theory of development) which maintains one's perspective is colored by their experiences (Cherry, 2016). Both Brinkmann and Kvale (2015) and Flick (2014) addressed issues arising relating to analysis of the interview. For example, issues impacting reliability of data may present themselves if the researcher has not set aside any prejudices or suspended judgements when analyzing interview data (Brinkmann & Kvale, 2015; Costa & Garmston, 2013; Villarreal-Carman, 2016). Judgements resulting from the researchers' own expectations, prejudices or allegiances to contributing agencies could potentially contaminate authenticity of actual interview results impacting reliability (Brinkmann & Kvale, 2015; Flick, 2014). Regarding the current study, the aforementioned concerns were addressed as thoroughly as possible using various measures to increase trustworthiness (discussed in the data analysis sections).

Procedures

Teacher mentors from Sun Valley were interviewed in April and May of the 2015-2016 school year. TM4 was interviewed in April 2016 while TM1, TM2, and TM3

were interviewed in May 2016. Data collected from the interviews was transcribed to inform future renditions of the study.

Data Analysis

The cycle zero interview data were analyzed via in vivo coding methods to identify and extract common themes (Saldana, 2016). Care was given to examine the data for indications of mentor self-efficacy. Those preliminary themes of relationships, communication skills, and professional development were then compared with the constructivism theoretical framework since "…the realities we study are social products of the actors, or interactions, and institutions" (Flick, 2014, p.76). Trustworthiness measures included the use of researcher and data triangulation. For analysis purposes, the results are presented within the framework of constructivism.

Interview Results

Three main ideas appeared to percolate to the surface from a review of the cycle zero data: (a) the importance of relationships, (b) the necessity for strong communication skills, and (c) unrelated and mentor specific professional development or training opportunities. All mentors stated a strong belief in the importance of building and maintaining strong relationships with their mentees. TM4 spoke of the necessity of "…building those relationships to help teachers." The other mentors described strong relationships with their mentees which allowed them to truly mentor the mentee through challenging obstacles.

The necessity for strong communication skills was also a common theme throughout each interview. All mentors spoke of being able to truly listen in order to hear a mentee's concerns and assist them in the manner the mentee desired. Only one mentor,

TM2, however, spoke of being able to communicate in a manner where constructive feedback could be given while also refraining from judgement.

> …I didn't really know how to address them in a way that would maintain our relationship and that would prevent me from passing judgement on the decisions this person was making. But with cognitive coaching training, I was able to learn how to get them to reflect, to self-reflect, on why they were making these decisions and what was holding them back (TM2).

In this example, TM2 realized that not only were strong communication skills required for mentoring but she also realized the power in utilizing a specific type of communication skill (cognitive coaching) as being what makes the difference in her mentoring conversations.

Finally, training was referenced by all mentors; however, where more experienced mentors could speak about mentor specific training they had received since becoming a teacher mentor, newly hired mentors could only draw on training received prior to their moving into their new position. For example, one experienced mentor stated, "At Teach for America, when I worked for them, I had specific training on managing data and analyzing teacher performance data. I find that relevant to this job…" On the other hand, an inexperienced mentor stated, "I need training, definitely training.…the right kind of training for (sic)…the uniqueness of this profession." Even though new mentors could not articulate it at this point in their mentoring career, experienced mentors recognized and could articulate the benefits previous training had on their ability to mentor. Either way, experienced and inexperienced mentors saw the value in both specific and non-specific mentor training.

Participants commented on the importance of a wide variety of factors related to their self-assessed mentoring abilities. It is interesting to note that in the four interviews conducted, there were distinct differences between what inexperienced teacher mentors viewed as critical compared to what experienced mentors viewed as critical for their success and ability to achieve success. Specifically, experienced mentors identified their skill and ability to listen and communicate as primary for driving success. Inexperienced mentors never even spoke of communication skills and only TM4 briefly mentioned listening skills while TM3 never brought it up. Rather, they referenced success stories. For example, TM3 described his most successful mentoring experience as follows: "I took that kid where…she felt like nobody and she finished at the top…her record still stands at school."

TM2, an experienced mentor, spoke of her success as a direct result of her "…ability to form relationships." Further, she attributed the school culture and teacher's mindset as affecting her ability to be successful. TM1 believed her ability to listen and communicate were important but specifically stated her "…constant calm supportive presence..." and ability to "…build on moments…" and "…channel them…" as leading to success. Both experienced mentors identified training received for cognitive coaching, professional development received from Pete Hall on building teacher's capacity, and professional development for classroom management as instrumental in allowing their success in mentoring.

Cycle One

Participants

PLS-MA1 participants. Out of the 27 participants in the 2016-2017 PLS-MA1 series cohort, only four completed the cycle one survey and, therefore, were the participants in cycle one. As such, the following demographic information in Table 9 is related to those four participants who completed the cycle one pilot survey.

Table 9

Pilot Study of TMSES for 2016-2017 PLS-MA1

Gender	Male	1
	Female	3
Race	Caucasian	1
	White	2
	Did Not Identify	1
Education	Undergraduate Degree	1
	Master's Degree	2
	Ph.D. or Ed.D.	1
Years' Experience	6-10 Years	1
	16-20 Years	1
	20+ Years	1
	21+ Years	1

N = 4

Three of the survey participants were female and one was male. Two females responded they were White or Caucasian, the one male responded as White or Caucasian, and one of the four respondents did not identify racially. One respondent had an undergraduate degree, two had master's degrees, and one had a Ph.D or Ed.D. Years of experience for the four participants completing the survey were as follows: one selected the category "6-10 Years Experience"; one selected the category "16-20 Years

Experience"; one selected the category "20+ Years Experience"; and one selected the category "21+ Years Experience."

Intervention

Professional Learning Series – Mentor Academy Year One (PLS-MA1).

Through a series of four two-day workshops interspersed throughout the 2016-2017 school year, the PLS-MA1 in conjunction with the New Teacher Center strove to provide new teacher mentors with the knowledge, tools and skills necessary to mentor beginning teachers. Individual sessions focused on specific topics centered on four areas: (a) building relationships and utilizing strategies of dynamic didactic mentoring; (b) communicating with beginning teachers to conduct classroom observations of instructional practices, as well as, communicating with administrators in support of beginning teachers; (c) holding follow-up conversations with beginning teachers to discuss data collected from classroom observations; and, (d) communicate feedback to beginning teachers which is timely and valuable, as well as, reflecting on the teacher mentor's own practice in an effort to grow and improve as a mentor (Arizona K-12 Center, 2017). Since this study takes place during the fall, only the first two of the two-day workshops allowed for the collection of data. Parts three and four are included in Appendix G for reference with parts one and two explained in greater detail in the following two sections.

Part one. The first session in the PLS-MA1 series is called Mentor Training 1: Instructional Mentoring (Arizona K-12 Center, 2017). Five outcomes, or objectives, have been established as provided in Table 10.

Table 10

PLS-MA1 Part One – Instructional Mentoring

Number	Outcome
1	Discuss and Use the Core Capabilities to Focus on Strategies for Deeper Learning
2	The Importance of Building a Trusting Relationship as a Mentor
3	Explore the Online Formative Assessment Tools
4	Explore the Professional Learning Plan (PLP) and Apply the Cycle of Inquiry
5	Set an Individual Goal Utilizing the Mentor Continuum Standards and the PLP

Note: Adapted from New Teacher Center Instructional Mentoring Field Guide (2015).

The focus of part one in the series stresses the critical nature a relationship of trust and confidence has in the mentor's ability to effectively impact the beginning teacher. Through a variety of instructional strategies, teacher mentors learned methods of successfully building positive trusting relationships with their beginning teachers. From there, training facilitators introduced teacher mentors to the New Teacher Center's (NTC) LearningZone, a web-based program where teacher mentors access mentoring tools for use in the mentoring practice (New Teacher Center, 2015).

Foundations of mentoring practice taught in the professional development PLS-MA1 are anchored in a guide created by the NTC called the Continuum of Mentor Practice (© 2011), of which, a summary is represented in Table 9. The entire guide is included as Appendix A. The Continuum of Mentor Practice (© 2011) operates "…across various stages of development…" (New Teacher Center, 2016, p. 3) and was created to serve the purpose of facilitating mentor practice in reflection and assessment towards growth. Except for the last standard which focuses on advancement of the mentoring profession, the continuum consists of standards based on facilitating teacher growth.

Each of the six standards, however, have a scale ranging from "emerging/exploring" to "applying" and finally to "integrating/innovating" (New Teacher Center, 2016, p, 4-13). Each standard is listed in Table 11.

Table 11

Continuum of Mentor Practice

Number	Standard
1	Facilitates and advances the professional learning of each teacher to increase student learning
2	Creates and maintains collaborative and professional partnerships to advance teaching practice and student learning
3	Utilizes knowledge of standards, pedagogy, and research to advance teaching practice and student learning
4	Promotes professional learning for teachers for continuous improvement and student learning
5	Uses assessment data to advance teaching practice and student learning
6	Develops as a professional leader to advance mentoring and the profession

Note: Adapted from Continuum of Mentoring Practice (© 2011)

Part two. Session two in the PLS-MA1 series is called Mentor Training 2: Observing and Conferencing (Arizona K-12 Center, 2017). The four outcomes established are identified in Table 12.

Table 12

PLS-MA1 Part Two – Observing and Conferencing

Number	Outcomes
1	Reflect upon and discuss mentoring experiences since *Instructional Mentoring*
2	Extend and expand upon the use of instructional mentoring languages
3	Use protocols and tools that support an effective classroom observation cycle
4	Communicate, collaborate, and coordinate with a site administrator for beginning teacher assessment and support

Note: Adapted from New Teacher Center Observing and Conferencing Field Guide (2015).

Session two is designed to support the mentor in having pre- and post-conference conversations with mentees as well as conducting classroom observations. Through participation in the session, mentors received and practiced with the language and tools necessary to facilitate teacher growth in relationship to the Interstate Teacher Assessment and Support Consortium (InTASC) standards developed by the Council of Chief State School Officers and member states included in Appendix B (Council of Chief State School Officers', 2011). Additionally, this session provided support for mentors to have conversations with their administrators regarding their mentoring work (New Teacher Center, 2015).

Instrument

PLS-MA1 survey tool. A survey tool was created based upon research studies and piloted at the end of the 2016-2017 school year. It is provided in Appendix C. The survey is based upon the work of Tschannen-Moran and Woolfolk-Hoy's (2001) Teachers' Sense of Efficacy Scale as well as Schwarzer, Schmitz, and Daytner (1999) Teacher Self-Efficacy survey, both of which were grounded in Bandura's (1997) work relating to self-efficacy theory. Additionally, the instrument represented items originating from the Sudweeks (2005) and NTC's Continuum of Mentoring Practice. Finally, one item relating to teacher retention (Arizona School Board Association, 2015; Benson, 2014; Cochran, 2015; Irish, 2016; Reiser, 2016; Vedantam, 2017) was included in the pilot survey instrument.

Thirty-nine questions make up the Teacher Mentor Self-Efficacy Survey (TMSES) used in the current study. Table 13 demonstrates the layout of the survey items.

Table 13

Teacher Mentor Self-Efficacy Survey Outline by Section

Section	Title or Items and Source		Reliability Data from Original Sources
Section One	Consent Acknowledgement and Agreement		
Section Two	Items 4-9	Sudweek's (2005) six items from Bandura's unpublished teacher self-efficacy survey	.79
Section Three	Expanded Response	Opportunity to write in responses to further expand on survey items 4-9	
Section Four	Items 25-28; 30-35; 37-38; 42-47	PLS-MA1 Outcomes	
	Items 11, 12, 16, 17, 19, 39, 40	Teacher Mentor Self-Efficacy – Engagement	.87
	Items 13, 21, 24, 29	Teacher Mentor Self-Efficacy – Instruction	.91
	Items 14, 15, 18, 20, 22, 36	Teacher Mentor Self-Efficacy – Classroom Management	.90
	Items 23, 41	Retention Goals from Sun Valley	
Section Five	Expanded Response	Opportunity to write in responses to further expand on survey items 11-47	
Section Six	Participant Demographics Request		
Section Seven	Request for data relating to participation in mentor shadowing		
Section Eight	Request for volunteers for research interviews		

The first rendering of the TMSES was a pilot survey containing six items pulled directly from Sudweeks (2005) without alteration included in Table 14; these questions are also included in Appendix C as the first six items of the TMSES.

Table 14

Six Items Pulled from Sudweeks (2005) for Teacher Mentor Self-Efficacy Survey

Number on TMSES	Items from Sudweeks (2005)
4	I believe I have open lines of communication with the novice teachers that I mentor.
5	I believe I provide appropriate feedback when conferencing with novice teachers.
6	I believe I am very effective in pointing out a novice teacher's weaknesses.
7	I believe I am a very good advocate for novice teachers when dealing with administrators, other teachers, and district personnel.
8	I am able to help teachers implement a plan when they are having difficulty implementing a management plan.
9	The professional inadequacies of a novice teacher can be overcome by the mentoring I provide.

These six were selected based upon Sudweeks' (2005) factor analysis indicating only these six had a factor load high enough to indicate reliability according to the construct of feedback on his Mentoring Self-Efficacy Instrument.

Eight items were pulled from the ten-item teacher self-efficacy survey created by Schwarzer, et al. (1999). These items needed to be revised or adapted for teacher mentors which is why two of the ten items from Schwarzer et al. (1999) were eliminated. These two items were so teaching specific they could not be adapted for teacher mentors. The other eight questions lent themselves well for modification. For example, the following items from Schwarzer et al. (1999) in Table 15 are examples demonstrating how simply and easily they were modified for the purposes of this study.

Table 15

Example of Modified Questions for Teacher Mentor Self-Efficacy Survey

Schwarzer, Schmitz and Daytner (1999) Teacher Self-Efficacy Questions	Teacher Mentor Self-Efficacy Survey (TMSES)
I am convinced that I am able to successfully teach all relevant subject content to even the most difficult students.	As a teacher mentor, I am confident I can successfully coach all relevant subject content to even the most challenging beginning teacher.
I know that I can maintain a positive relationship with parents even when tensions arise.	As a teacher mentor, I am confident I can maintain a positive relationship with beginning teachers when tensions arise.
I am confident in my ability to be responsive to my students' needs even if I am having a bad day.	As a teacher mentor, I am confident in my ability to be responsive to my beginning teachers' needs even if I am having a bad day.

Bandura's (undated) unpublished teacher self-efficacy scale provided fourteen items although the survey consisted of thirty items. As with the Schwarzer et al. (1999) instrument, the sixteen items omitted from Bandura's teacher self-efficacy scale (undated) were found to be teaching specific which did not lend them to adaptability for teacher mentors. Gibson and Dembo's (1984) Teachers' Sense of Efficacy Scale long form provided eleven items which could be adapted and incorporated into the TMSES. Just as with Bandura (undated) and Schwarzer et al. (1999), items were eliminated from Gibson and Dembo's (1984) twenty-four item survey because of teacher specificity and lack of adaptability. The following modified question is an example of what was included on the TMSES as it was a question on each of the aforementioned surveys in some variation: As a teacher mentor, I am confident I can reach even the most difficult beginning teachers.

Finally, twelve items were created to complete the thirty-nine item TMSES tool originating from PLS-MA1 and Sun Valley's mentoring program. Eleven items were created from the outcomes from each of the two-day sessions of the PLS-MA1 professional development. These were selected for one reason—to address the research question directly linked to teacher mentor self-efficacy because of participation in PLS-MA1. The last item created for the TMSES came as a direct result of Sun Valley's goal to increase teacher retention and reduce teacher turnover. Table 16 in Appendix D shows the origination of these survey prompts.

A five point Likert scale was used for the TMSES as follows: 1 = nothing, 2 = very little influence, 3 = some influence, 4 = quite a bit of influence, and 5 = a great deal of influence. According to a document on instrument development from Loyola Marymount University (2017), Likert scales should be between five and six points because to use something larger results in confusion regarding meaning between points. Smaller scales could result in missing out on data since participants are forced into smaller point constraints (Loyola Marymount University, 2017).

Limitations. One such limitation relates to whether or not the respondent fully understood the question or whether or not the respondent had any experiences pertaining to the particular question. Considering this limitation answers may not accurately represent the respondent's experiences (Mertler, 2014). Respondents could have been forced into an answer they would not have preferred (Mertler, 2014). Further, answer choices may not have included the respondent's preferred choice again leading the respondent into a forced answer. One more limitation was discovered while looking at answers prompting participants to select their years of experience. It was noted that two

of the options created a category whereby years of experience overlapped, specifically, between the following two categories: 20+ Years Experience and 21+ Years Experience.

A further limitation included the ability to gain "…compliance of all stakeholders to complete the survey…" (Ivankova, 2015, p. 198). In this technology rich society, people are inundated by survey requests from multiple sources leading to a resistance in some cases for solicited survey participants to complete the survey. And, those willing to participate may not always take the survey seriously rushing through its completion in order to complete the task without truly taking it seriously. Unfortunately, all the aforementioned limitations could lead to bias in the resulting survey data (Ivankova, 2015).

Data Analysis

Data analysis for this cycle of the research project came from the pilot study of the survey tool which was piloted during the month of April 2017. The survey data were used for analysis using descriptive statistics (means, standard deviations). Analyses of variance was also used to explore group differences. SPSS version 24 was utilized for the analyses.

Results

Fraenkel and Wallen (2005) define reliability as the likelihood that a researcher would achieve very nearly the same results in subsequent tests. One method for computing this measure of reliability (i.e., internal consistency reliability) is to calculate Cronbach's Alpha calculations which was accomplished using the computer software program IBM SPSS Statistics 23. Cronbach alpha data will range from 0 to 1. The more the number pushes towards 1 the more reliable the measure; the more the Cronbach alpha

pushes towards 0 the less reliable the measure (University of Virginia Library, 2017), further "Although the standards for what makes a 'good' α coefficient are entirely arbitrary…many methodologists recommend a minimum α coefficient between 0.65 and 0.8 (or higher in many cases); α coefficients that are less than 0.5 are usually unacceptable…" (Using and Interpreting Cronbach's Alpha, n.d.). Because these standards are arbitrary, Sloat (2016) suggests using the following as a guide:

0.0	<	r	<	.19	=	Not Reliable
.20	<	r	<	.49	=	Somewhat Reliable
.50	<	r	<	.79	=	Moderately Reliable
	<	r	<	.80	=	Very Reliable

The survey instrument was designed and piloted in the initial cycles of the research study with the intent to measure teacher mentor self-efficacy using five Likert scale variables. The Likert scale consisted of the following: 5 = Definitely; 4 = More than likely; 3 = Probably; 2 = Maybe; and 1 = Not at all.

Dissertation

The dissertation cycle consisted of a pre-, mid- and post-survey of thirty-seven PLS-MA1 participants for the intervention relating to research question one—*How does participation in the Arizona K-12 Center's PLS-MA1 teacher mentor training impact teacher mentors' self-efficacy?* Participants of the PLS- MA1 training completed the pre-survey given in August 2017, the mid-point survey given in October 2017, and the post-survey given in January 2018. Three Sun Valley teacher mentors were included in the PLS-MA1 participant pool; therefore, they completed all three surveys.

The dissertation cycle also consisted of mentor shadowing by all six Sun Valley teacher mentors. Data collected from Sun Valley mentors was used to attempt to answer

the second research question—*how does participation in mentor shadowing impact the self-efficacy of teacher mentors in our school district?*

Interventions

PLS-MA1. Two parts of the PLS-MA1 professional development series were studied for purposes of this dissertation project with a sample of 30 mentor teachers as they took place in the fall: Part One – Instructional Mentoring and Part Two – Observing and Conferencing.

Mentor shadowing. Six Sun Valley teacher mentors also participated in the second part of the project by completing shadowing events where they shadowed at least one teacher mentor and were shadowed by one teacher mentor per semester.

Participants

PLS-MA1 participants. All participants attending the PLS-MA1 professional development series through the Arizona K12 Center during the 2017-2018 school year were invited to participate in the study. Thirty-seven were enrolled in the professional development with 30 completing the TMSES and participating in this study. Refer to Table 17 in Appendix F for specific details relating to participant demographics.

Sun Valley teacher mentors. For the dissertation cycle, there was a change in the mentoring team since the 2015-2016 team who participated in the preliminary study. Three females and one male from the preliminary study carried over to the dissertation cycle; however, two additional mentors were added—one male and one female. Neither came into the position with any previous mentoring experience; however, they were employed with Sun Valley in a teaching capacity prior to becoming a teacher mentor.

Years of teaching experience prior to becoming a mentor were as short as ten years of teaching experience to as long as twenty-five years (M = 16.3, SD = 6.16).

Table 18

2017-2018 Sun Valley Teacher Mentors with Years of Teaching Experience, Content Area Taught, and Years of Mentoring Experience

Participant	Gender	Race or Ethnicity	Yrs. Teaching Experience	Content Area	Yrs. Mentoring Experience
Researcher	F	Caucasian	15	English	5.5
TM1	F	Hispanic	17	JAG	4
TM2	F	Asian	5	Math	3
TM3	M	Caucasian	25	Social Studies	7
TM4	F	Caucasian	18	Wellness	0
TM5	M	Hispanic	10	SPED	0

Age ranges for the teacher mentors spanned from thirty-four to fifty-five. Both new teacher mentors entered the profession with an education degree. The new male teacher mentor holds a degree in special education cross-categorical and the new female teacher mentor holds a kinesiology degree in education.

Instruments

PLS-MA1. Two instruments were utilized for gathering data for this aspect of the dissertation cycle—TMSES and semi-structured interviews.

TMSES. The TMSES instrument was also used for the dissertation cycle. Only one change was made to the tool from the previous rendition in cycle one and that was to address the conflict in overlapping sections for years of teaching experiences. The question asking participants to indicate how many years of teacher experience they had

was modified as follows: “1-5 years;” “6-10 years;” “11-15 years;” “16-20 years” and “21+ years.”

Semi-structured interviews. In a semi-structure interview, five of the thirty who participated in the PLS-MA1, representing 14% of the registered teacher mentors, were selected randomly and asked the same open-ended questions. The interview began with a request for the participants to give a short background on themselves indicating how long they have been in education, how they ended up as a teacher mentor, and finally to share their mentoring assignments and caseload. From there, the interview commenced with the first question—*Tell me about the challenges you’ve had in transitioning into the role of mentor?*—and ended with—*Tell me about a time you felt inadequate in your role as mentor? What factors contributed to that feeling of inadequacy?* All five interview questions are included in Appendix F. The shortest interview was nine minutes with the longest interview being thirty-seven minutes. The average length of time for the interviews was twenty-five minutes.

The goal of the interview was to understand interviewees’ perspectives on their self-efficacy and gain a deeper understanding of teacher mentors’ experiences in training. Some probing and clarifying questions were asked in order to access in greater detail interviewees’ thoughts and experiences or allow the researcher to gain a deeper understanding. For example, questions about specific previous training was required. Follow up probes were asked to clarify participants’ responses, such as, *“So, where do you think you're finding the greatest amount of support in terms of your training right now? Would that be through the Arizona K-12 Center and all they’re doing, through the New Teacher Center, or through what you're discovering personally?”*

Mentor Shadowing. Two instruments were utilized to gather data for this portion of the research study—TMSES and a panel interview.

Survey. The TMSES instrument also included five prompts to collect data on mentor shadowing during the dissertation cycle. See Table 19 below or Appendix C for specific questions.

Table 19

Questions on TMSES for Mentor Shadowing

Number on TMSES	Questions
63	Have you ever shadowed a peer mentor as part of mentor training? If you can answer yes to this question, please complete the following prompts.
64	How many times have you shadowed a peer mentor in one school year?
65	How long did each shadow visit last?
66	What was the focus of your mentor shadowing experiences? Please describe all.
67	In general, did you find the mentor shadowing experience(s) valuable to your practice as a mentor?

Panel interview. Rather than conduct individual interviews with each of the Sun Valley teacher mentors, a panel discussion was held to take advantage of a collaborative team meeting they were holding the third week of December 2017. The goal of the panel interview was to learn about the effectiveness of the buddy shadowing portion of the project. As with individual interviews, the mentors of Sun Valley were asked the same interview questions to guide the panel discussion. This proved to be a very efficient manner for gathering data. Because this team works so well together, none of the concerns associated with panel interviews appeared to be an issue. All members equally contributed and the depth of each member's contribution was balanced with their time in their position. The entire panel interview lasted fifty-four minutes.

Procedures and Timeline

Several actions took place in the dissertation cycle as outlined in Table 20. More specific details are provided in subsequent sections clarifying events.

Table 20

Dissertation Cycle Procedures and Timeline

Fall 2017	August	Pre-survey for PLS-MA1 completed prior to completion of Part One – Instructional Mentoring	2017-2018 PLS-MA1 cohort
	October	Midpoint-survey for PLS-MA1 completed at the beginning of Part Two – Observing and Conferencing	2017-2018 PLS-MA1 cohort
	December	Random selection and interview of 5 participants	2017-2018 PLS-MA1 cohort
		Panel interview of all 5 teacher mentors	Sun Valley Mentors
Spring 2018	January	Post survey for PLS-MA1 conducted at beginning of Part Three – Using Data to Inform Instruction	2017-2018 PLS-MA1 cohort

Procedures for Survey

Pre-Survey August 2017. Utilizing the revised survey tool, a pre-survey was emailed by the AZK12 Center to the thirty-seven participants in the 2017-2018 cohort prior to completing Part One – Instructional Mentoring of PLS-MA1 in August 2017. The researcher was granted the first few minutes of the first PLS-MA1 session on August 15 to introduce herself, the study, and the survey that was emailed to participants prior to their attending their first session. Five participants completed the survey on August 15. On the second day of the two-day session and, after reaching out to the AZK12 Center on August 16 regarding low completion rates, a second email was sent to all participants as well as a reminder given by the facilitator of the workshop prior to their lunch break.

Three participants completed the survey on August 16. The researcher reached out to the AZK12 again and additional reminder emails were sent out weekly through the end of August. Three additional participants completed the survey—one each on August 18, August 29 and August 30. Of the four Sun Valley teacher mentors attending PLS-MA1, three completed the survey between August 10 and August 15. One Sun Valley teacher mentor did not complete the survey. A total of fourteen participants, 38.7%, completed the survey leading to a significantly lower than anticipated completion rate. A total of thirteen participants completed the survey.

Mid-point survey October 2017. To increase the survey completion rate, paper and pencil surveys were administered for the mid-semester survey. It was given the first day of PLS-MA1 Part Two – Observing and Conferencing on October 31. The completion rate was much higher this time with 87%, or thirty participants, completing the survey. The survey was distributed and collected by the researcher right before participants broke for lunch. A total of thirty participants completed the survey.

Post-survey January 2018. Post-surveys were conducted on January 23, 2018 in similar fashion as mid-point surveys. Participants were asked to complete the surveys at the beginning of their lunch break on the first day of PLS-MA1 Part Three – Using Data to Inform Instruction. Completion rates were again much higher than the pre-survey attempt with 81% of participants completing the post-survey. Surveys were distributed and collected by the researcher with 30 of the 31 participants present at that time completing the survey.

Procedure for Interviews

Initial interviews of the two new Sun Valley teacher mentors were conducted on August 1 and August 8. One interview lasted thirty-five minutes and the other lasted nine and a half minutes. Interviews of the other four teacher mentors were completed during cycle one of the research study. After completing mentor shadowing for the fall 2017 semester, a panel interview was conducted with all teacher mentors. The same interview questions were asked (see Appendix E) in addition to the following added question: *How has participating in mentor shadowing impacted your practice as a teacher mentor?*

Quantitative Data Analysis

Data were analyzed using descriptive statistics, including, means, standard deviation, and frequencies. Internal consistency reliability was conducted on the TMSES with the dissertation data. Graphing was used to visually analyze pre, mid, and post differences in teacher mentor self-efficacy.

Qualitative Data Analysis

The qualitative data (interviews from both the five PLS-MA1 participants and six Sun Valley participants in their panel discussion) were analyzed to learn more about the relationships between how the mentor training influenced mentor self-efficacy. Interview data were analyzed via in vivo coding methods to identify and extract overall themes in round one (Saldana, 2016). Then, in round two of data analyses, data were compared to the four components of self-efficacy—performance outcomes, vicarious experiences, verbal persuasion and physiological feedback. As in cycle zero and cycle one, care was given to examine the data for indications of mentor self-efficacy. The constructivism theoretical framework was the foundation leading to identification of three themes—the

importance of building mentoring relationships, the importance of being skilled in the craft of communication, and the necessity of training or professional development in the art and craft of mentoring. The importance of building mentoring relationships correlates to "…constructionism claims…that meanings are constructed by human beings as they engage with the world they are interpreting" (Crotty, 1998, p. 43). Further, "According to constructionism, we do not create meaning. We construct meaning. We have something to work with" (Crotty, 1998, p. 44). This is representative of the necessity of training or professional development in the evolution of the mentors' skill in mentoring.

Trustworthiness

Interviews across groups and times along with survey data were used to triangulate findings/themes as a measure of trustworthiness. Measures included independent peer review of data and negotiation of themes between the researcher and peer reviewer. Member checks were also conducted where summaries were sent to participants. They were asked to respond if the themes did not accurately represent their self-efficacy as mentors. Negative case checks were also conducted.

CHAPTER 4

FINDINGS

This study was conducted to determine the impact mentor training has on teacher mentor self-efficacy. Two sources of mentor trainings were evaluated: the Professional Learning Series – Mentor Academy 1 (PLS-MA1) through the Arizona K12 Center and Sun Valley High School District's mentor shadowing program. Chapter three described the initial two cycles of the study utilizing a mixed methods participatory action research (PAR) methodology. In this chapter, I describe the findings of the dissertation research cycle. Please note that pseudonyms are used for participant names.

The first section of this chapter presents the quantitative and qualitative findings of PLS-MA1 training which was utilized to address research question one—*How does participation in the Arizona K-12 Center's PLS-MA1 teacher mentor training impact teacher mentors' self-efficacy?*

The second section presents the quantitative data related to mentor shadowing from the TMSES and the qualitative findings from the Sun Valley interviews with both being utilized to address research question two—*How does participation in mentor shadowing impact the self-efficacy of teacher mentors?*

Findings of PLS-MA1 Training (Research Question 1)

Evaluation of mentor perceptions data collected from the Teacher Mentor Self-Efficacy Survey (TMSES) was used to answer research question one—*How does participation in the Arizona K-12 Center's PLS-MA1 teacher mentor training impact teacher mentors' self-efficacy?* Themes from mentor teachers' perceptions of the PLS-MA1 trainings are also discussed.

Quantitative Findings

Internal consistency of TMSES. Reliability of the pre-survey data set were conducted from the twelve participants in the dissertation cycle who completed the pre-survey given in August 2017. As part of the survey included qualitative data, not all sections or items were utilized to calculate the Cronbach Alpha score. The following table conveys three construct items designed within the survey by the researcher and coefficient alpha estimate of internal consistency reliability for each construct.

Table 21

Cronbach Alpha Scores for Dissertation Pre-Survey of Teacher Mentor Self-Efficacy Survey in August 2017

Construct	Construct Represented in Items	Coefficient Alpha Estimate of Reliability
Feedback (Bandura's unpublished teacher self-efficacy survey)	Section 2: 6 items (4-9)	.851
PLS-MA1 Outcomes	Section 4: 18 items (25-28; 30-35; 37-38; 42-47)	.971
Teacher Mentor Self-Efficacy	Section 4: 19 items (11-24; 29; 36; 39-41)	.975
Overall Score	All Above Items	.987

Initial review of the pre-survey data from August 2017 indicated reliability coefficients all falling within the very reliable category recommend by Sloat (2016); however, because the pool of data was so small it is very likely the reliability data was skewed. This was considered the case after reviewing the computed data when it became

evident that the four participants who completed the survey did not complete all survey items. As such, thirteen of forty-three items were eliminated from the calculations.

Because Tschannen-Moran and Woolfolk (2001) conducted construct reliability for their Teacher's Sense of Efficacy Scale (TSES) which consisted of three constructs—engagement, instructional strategies and classroom management—comparisons could be made between Tschannen-Moran and Woolfolk (2001) results and the cycle one study on these same three constructs. Their TSES (Woolfolk, 2001) displayed a reliability coefficient of .94 overall.

To support the reliability and validity of scores produced with the TMSES, the pre-survey conducted in August 2017 was compared to reliability data from Tschannen-Moran and Woolfolk (2001) and Sudweeks (2005). A total of 37 participants were registered for and asked to participate in the pre-survey. Of those 37 only 12 participants completed the TMSES representing a 32.4% completion rate. Table 22 represents each construct and the results of the comparison.

Table 22

Cronbach Alpha Scores for Pre-Survey of Teacher Mentor Self-Efficacy Survey

Construct	Construct Represented in Items	Construct Reliability from Pre-Survey of TMSES	Construct Reliability from other sources
Bandura's (1970) unpublished teacher self-efficacy instrument	Items 4-9	.85	.79
Engagement	Items 11, 12, 16, 17, 19, 39, 40	.89	.87
Instruction	Items 13, 21, 24, 29	.93	.91
Classroom Management	Items 14, 15, 18, 20, 22, 36	.92	.90
Retention	Items 23, 41	.80	N/A
PLS-MA1	Items 25-28, 30-35, 37, 38, 42-47	.98	N/A

Sudweeks' (2005) Cronbach Alpha calculations of Bandura's (1970) unpublished teacher self-efficacy instrument (.79) was lower by .06 than the .85 Cronbach Alpha from the TMSES pre-survey. According to Sloat (2016), this discrepancy would be considered nominal; however, it is important to take into consideration the difference in the size of the participant pool. Sudweeks (2005) surveyed 264 teacher mentors while the TMSES pre-survey was only completed by 12 participants in the current study. Such a small pool of participants would most likely impact the reliability coefficient. Cronbach Alpha for the TMSES was only .02 higher for all three constructs of the Tschannen-Moran and Woolfolk (2001) tool—Engagement (.87 versus .89 for TMSES), Instruction (.91 versus

.93 for TMSES) and Classroom Management (.90 versus .92 for TMSES)—which still allows for both comparisons to fall within the very reliable range (r >.80) (Sloat, 2016).

Finally, the Cronbach Alpha for retention (.80) and PLS-MA1 outcomes (.98) also reflected a very reliable coefficient. Because the items for these two constructs were so specific to what they were seeking to measure it was no surprise that their reliability measures were so high; however, it must be noted that PLS-MA1 outcomes did have one exclusion. One participant failed to complete all items resulting in exclusion for this computation.

The resulting overall Cronbach Alpha was .975, which according to Sloat (2016), represents a very reliable coefficient overall. University of Virginia Library Research Data Services and Sciences (2017), however, caution against a reliability coefficient this high indicating it could be an issue of redundancy in the items. Another issue that could be influencing such substantial reliability overall is the number of participants actually completing the survey (Sloat, 2016).

The previous and current analyses for the items on these three instruments support reliability of the items measuring the constructs. The validity of the instruments was previously shown in the validation studies of the instruments (Schwarzer, Schmitz, & Daytner 1999; Sudweeks, 2005; Tschannen-Moran & Woolfolk-Hoy, 2001).

Descriptive statistics for mid-point and post TMSES. The Teacher Mentor Self-Efficacy Survey descripted in the methods chapter was utilized for data collection. The survey completed by mentors attending the PLS-MA1 trainings were analyzed producing the descriptive statistics presented in Table 23. Although 37 participants were solicited, only 12 completed the pre-survey with one survey being incomplete and 30 each

completed the mid-point and post-surveys with all surveys being completed in their entirety.

Table 23

Descriptive Statistics for TMSES Mid-Point Survey and Post-Survey

	Pre-Survey August2017*		Mid-Point Survey October 2017**		Post Survey January 2018**	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Bandura's (1970) unpublished teacher self-efficacy instrument	3.61	.80	3.68	.96	4.00	.67
Engagement	3.90	.75	3.83	.61	4.12	.60
Instruction	3.82	.87	3.76	.80	4.06	.63
Classroom Management	3.67	.91	3.52	.68	3.94	.66
Retention	3.77	.91	3.38	.94	3.67	.88
PLS-MA1 Outcomes	3.85	.87	3.90	.64	4.18	.55
Entire Scale	3.98	.86	3.94	.67	4.28	.60
Internal Consistency Reliability	Pre-Survey α=.99		Mid-Point Survey α=.97		Post-Survey α=.98	

*N=11
**N=30

A review of standard deviation in Table 23 shows the most consistent figures come from Classroom Management where there is a decline of .02 in standard deviation from the mid-point survey to the post-survey indicating there is little change from one survey's responses to the other. Retention also represents strong consistency with a small difference in standard deviation of .06 from the mid-point survey to the post-survey also

indicating small variability between surveys. Further, this small disparity implies this data is accurate across surveys.

As a whole, the entire instrument appears to display a small degree of variability in participant responses since standard deviation in only .08 between instruments. Further, because the Cronbach's Alphas for both surveys are greater than .80 they are considered very reliable according to Sloat (2016).

Graphic Representation of Changes Over Time. Several trends stood out from a review of the means plots. First, there was a distinct upward trend in means from the pre-survey (*m* = 3.6) to post-survey (*m* = 4.0) for Bandura's (1970) unpublished teacher self-efficacy instrument (see Figure 3).

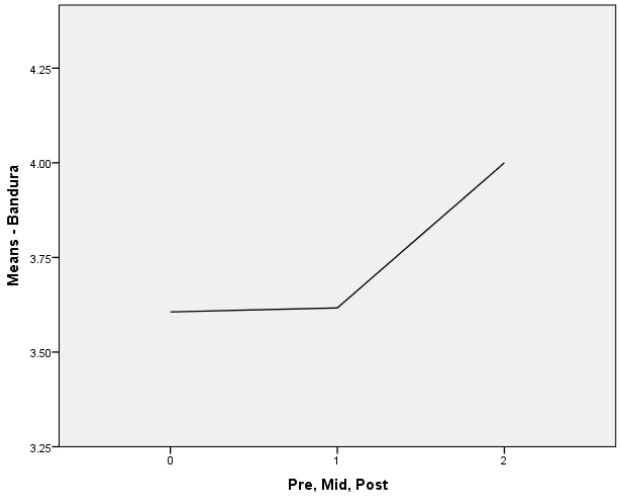


Figure 3. Means trend data for Bandura's (1970) unpublished teacher self-efficacy instrument on Pre, Mid, and Post-TMSES.

Means for the Engagement, Instruction, and Classroom Management constructs all displayed the same trend (See Figures 4-6). Initially, all three represented a means from 3.67 to 3.90 for the pre-survey but dropped to a range of 3.52 to 3.83 on the mid-point survey only to spike from 3.94 to 4.12 on the post-survey.

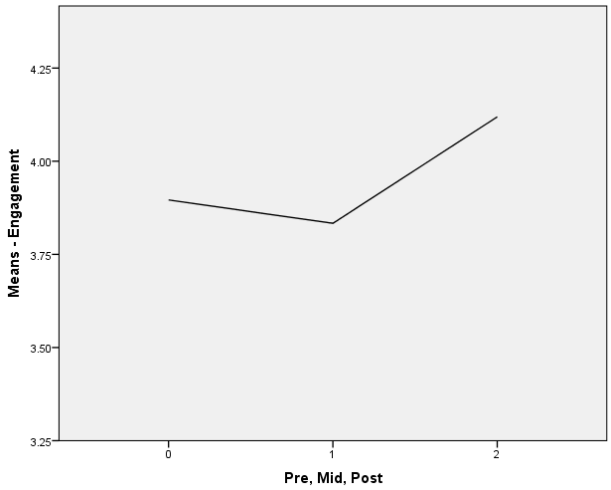


Figure 4. Means trend data for Engagement on Pre, Mid, and Post-TMSES.

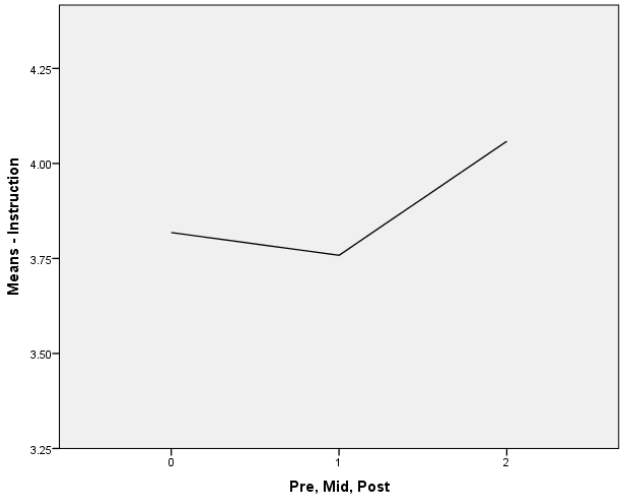


Figure 5. Means trend data for Instruction on Pre, Mid, and Post-TMSES.

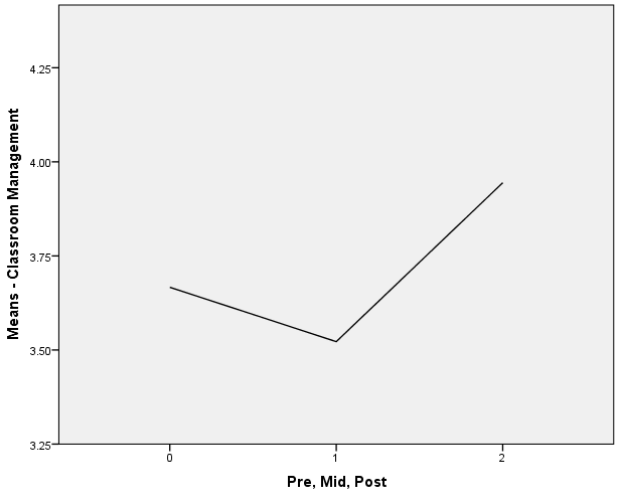


Figure 6. Means trend data for Classroom Management on Pre, Mid, and Post-TMSES.

Even more interesting was the trend data for Retention. (See Figure 7.) On the pre-survey $M = 3.77$, participants felt fairly confident they could have a positive impact on teacher retention; however, by the mid-point survey their confidence level dropped to 3.38 followed by a climb toward their post assessment of 3.67.

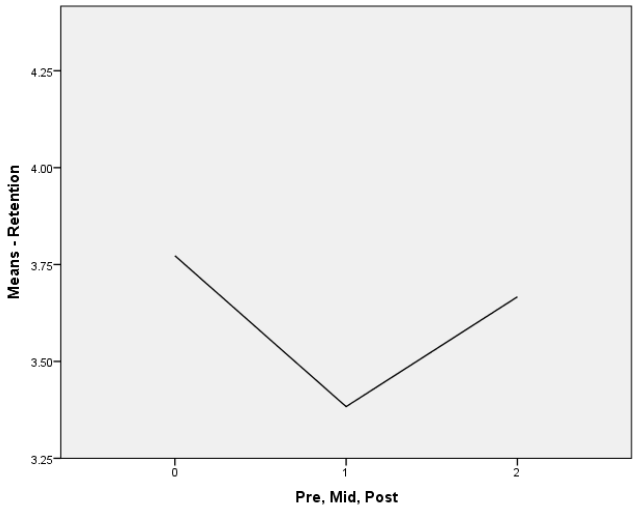


Figure 7. Means trend data for Retention on Pre, Mid, and Post-TMSES.

A review of trend data for the PLS-MA1 displayed an incline from the pre-survey (*M* = 3.85) to the mid-point survey (*M* = 3.90) with a more substantial incline at the post-survey (*M* = 4.18). (See Figure 8.)

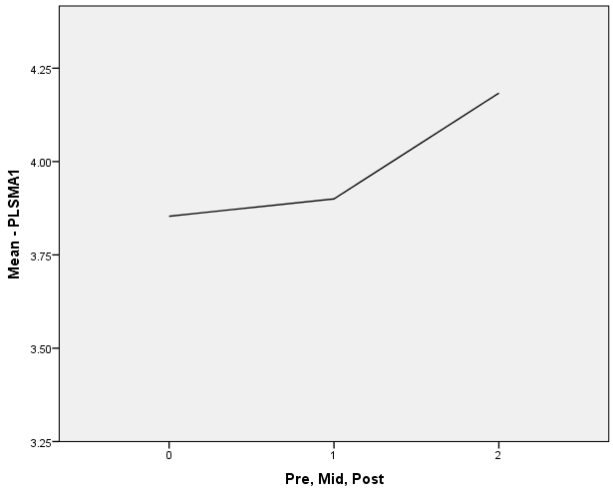


Figure 8. Means trend data for PLS-MA1 on Pre, Mid, and Post-TMSES.

Finally, the entire TMSES trend data was analyzed. (See Figure 9.) The pre-survey (*M* = 3.80) displayed a higher mean than the mid-point survey (*M* = 3.76) representing a minimal drop. The post-survey, however, displayed a significant spike with a mean of 4.08, up .32 from the mid-point survey.

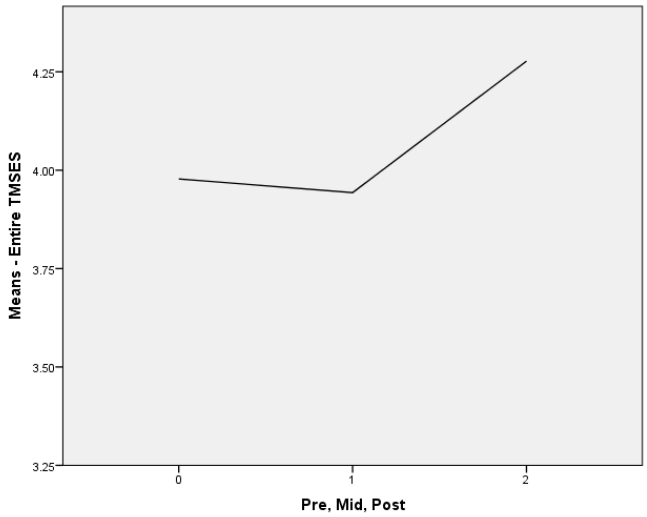


Figure 9. Means trend data for entire TMSES on Pre, Mid, and Post-TMSES.

Qualitative Findings from Teacher Mentors in the PLS-MA1 Training

Two open-ended sections were included in the survey instrument that allowed participants to respond anonymously in greater detail to any of the items. From the data analysis of these survey comments two major themes of the study emerged: (a) affect had a significant impact on teacher mentor self-efficacy and (b) both motivation and cognition similarly affected teacher mentor self-efficacy.

Affect. Self-efficacy was found to be impacted by negative affect in several areas: (a) relationships, (b) knowledge of new teachers, (c) systemic issues, and (d) teacher mentors' own lack of knowledge or ability. Positive affect, though, also played a role in teacher mentor self-efficacy. According to Bandura (1993), affect is the emotional aspect associated with a task or performance of that task. It is also one's belief in themselves and/or their ability to bounce back from failure. If a participant's comments

were determined to be negative in some manner related to affect they were categorized as negative affect. If the comments were determined to be positive in some manner related to affect they were categorized as positive affect.

Negative affect. The following are two examples of mentor teachers expressing concern with relationships. Specifically, one participant commented that, "When the relationship is less strong or lacks trust I am less effective in my practice." Using self-efficacy theory as the foundation, it can be assessed this anonymous participant is fairly confident in her abilities on the whole; however, when a solid relationship is not present because of a lack of trust, as in this case, she believes she has limited ability to impact the professional growth of the teacher. This is further supported by another participant's comment, "Personalities always present challenges." Here, the anonymous participant is recognizing that his ability to be effective is impacted by differing personalities making it difficult for him to mentor new teachers.

Another area of negative affect was evident as it related to the knowledge level of teachers and systemic issues, such as, new teachers entering the profession under emergency certificates and having no basic foundation in education. Two anonymous participants commented that teachers who have not graduated with an educational degree present a challenge that is hard to overcome. For example, one of them commented "We need to address inadequacies if they are interns" while the other wrote, "They often are missing basic skills and knowledge that I can't adequately provide." Both anonymous participants' self-efficacy appeared to be impacted by this negative affect leaving them feeling as if they were unable to adequately mentor new teachers. Other systemic issues

were further concerns affecting teacher mentor self-efficacy, such as, caseloads, time constraints and school culture/climate.

Finally, negative affect was greatly evident in teacher mentors' ability to mentor using mentoring protocols such as using mentoring language and tools or simply their lack of knowledge relating to mentoring. One anonymous participant wrote she "still [has not] learned varied tools and protocols" that are expected of a teacher mentor while another anonymous participant commented, "I don't have all the answers and I feel I should." Finally, a third anonymous participant wrote, "I feel that I could be highly effective in these areas but it is my own professional growth and learning curve that is holding me back." These comments indicate that with training and practice they would be more successful.

Positive affect. Not all comments were aligned to negative affect. Teacher mentors felt that if relationships with their new teachers were strong they were likely to be stronger as a teacher mentor. This is evidenced by several comments, such as, "I feel very competent with my skills described when I have a strong relationship with the teacher I am mentoring" and "I believe the relationship/trust related questions were easier to answer positively to as most of my efforts have been focused on building relationships and establishing trust and rapport this first quarter." Both anonymous participants have placed a high value on strong trusting relationships with their new teachers. Because they believe they have fostered or will foster strong relationships, they also believe they will be successful in their ability to mentor their new teachers.

Motivation and Cognition. In total, there were eighteen comments attributed to motivation and cognition as an impact on teacher mentors' self-efficacy.

Motivation. Motivation is governed by the teacher mentors' belief in their ability to perform. The following statement exemplifies how motivation impacts self-efficacy—"I believe it has been my 10 years in the classroom that has allowed me to best meet the needs of mentees." This anonymous participant is confident in his abilities to mentor his teachers because his success as a classroom teacher is leading him to have confidence in his abilities to mentor. He is not intimidated by the challenges it might present.

Cognition. The cognitive aspect of self-efficacy theory aligned to the participants' faith or trust in themselves and their abilities. The more faith and trust they had in themselves the more likely they were to aspire and achieve. Comments from participants in the positive affects section above are also examples of cognitive implications on self-efficacy. Additional examples of cognitive implications are demonstrated through the following comment, "I hope to feel more confident with more experience." This anonymous participant believes that once they learn and grow as a teacher mentor their confidence will grow leading to a stronger positive self-efficacy.

Summary of Findings

At times, it easy to separate the four elements of self-efficacy theory when evaluating participants' self-efficacy, however, generally it was very difficult. These four elements are interwoven into a complete self-efficacy makeup of the participant. As that is the case, when looking at the survey data alongside the survey comments, teacher mentor self-efficacy is definitely tied to mentor training. The more training a teacher mentor received, the more confident they were in their abilities to mentor their new teachers.

Qualitative and Quantitative Findings of Mentor Shadowing (Research Question 2)

Interviews of Sun Valley teacher mentors (N = 6) and four items on mentor shadowing from the survey data from PLS-MA1 (N = 30) was conducted to answer research question two—*How does participation in mentor shadowing impact the self-efficacy of teacher mentors?* Interviews were transcribed using an online transcription service and then analyzed using coding protocols, specifically, two coding cycles were conducted. The first coding cycle involved a procedure focused around the three tenets of cognitive/collaborative apprenticeship—metacognition, abstract ideas, and developed skills. Comments were coded as metacognition if they demonstrated the participant's consideration of mentoring ideas as being in the forefront of their thinking and/or actions. If participant comments represented relationships between abstract ideas then they were coded as abstract ideas. Finally, if participant comments demonstrated their ability to take developed skills and modify and/or adapt them to fit unique or individual situations they were then coded as developed skills. In the second round of cycle one coding, codes were organized thematically. This was then followed by another cycle of coding using Bandura's self-efficacy theory as the foundation for coding. Here, comments were coded as being associated with teacher mentor self-efficacy in a manner that was either indicative of positive self-efficacy or negative self-efficacy. In this round of the cycle, codes were again organized thematically with relationships being explored between both first and second cycle themes. Open-ended survey comments on mentor shadowing were analyzed using HyperResearch.

Quantitative data from four items on the TMSES were designed to measure the impact of mentor shadowing. These four items were analyzed using SPSS. Descriptive

statistics related to the four items—numbers 63 through 65 and number 67—are displayed in Tables 24-30 in the next section. Finally, trustworthiness of the data was established through negative case searches as well as member evaluations of themes and findings. There was member agreement with identified themes.

Quantitative Findings for Mentor Shadowing

The Teacher Mentor Self-Efficacy Survey (TMSES) was used to collect data. On the TMSES, four items were also analyzed on the topic of mentor shadowing leading to the results displayed in Tables 24-30 where N =12 for the Pre-Survey August 2017, N = 30 for the Mid-Point Survey October 2017, and N = 30 for the Post-Survey January 2018.

Table 24

Descriptive Statistics for Pre-Survey August 2017 on Mentor Shadowing Items 63 and 67

Mentor Shadowing Question	Yes	No	No Response
63. Have you ever shadowed a peer mentor as part of the mentor training?	16.7%	83.3%	0%
67. In general, did you find the mentor shadowing experience(s) valuable to your practice as a mentor?	16.7%	83.3%	0%

N=12

Of the 12 respondents who completed the pre-survey, only two had participated in mentor shadowing as of August 2017. Of those two, one respondent participated in mentor shadowing once while the other mentor shadowed twice. Mentor shadowing experiences consisted of thirty minutes or less while one mentor shadowing experience lasted as much as a full day. Both respondents indicated they found the mentoring experience(s) to be beneficial to their practice as a teacher mentor.

Table 25

Descriptive Statistics for Mid-Point Survey October 2017 on Mentor Shadowing Items 63 and 67

Mentor Shadowing Question	Yes	No	No Response
63. Have you ever shadowed a peer mentor as part of the mentor training?	23.3%	73.3%	3.3%
67. In general, did you find the mentor shadowing experiences(s) valuable to your practice as a mentor?	20%	0%	80%

N=30

Thirty participants completed the mid-point survey in October of 2017. Of those, one participant failed to indicate if they participated in teacher mentor shadowing and twenty-three failed to respond to whether they found the mentor shadowing experiences valuable. For those that did respond to these questions, the mid-point survey indicated 23.3%, or seven respondents, participated in mentor shadowing while twenty-two had not. There was no response for one respondent so it is left unknown as to whether that respondent completed mentor shadowing or not. Of those responding to the value of mentor shadowing, 20%, or six, indicated they did find value in the experience while 0% responded to the opposing option. No response was provided by 80% of respondents but it is possible no response was provided for item 67 because these respondents did not complete mentor shadowing.

Of the seven respondents who had shadowed a peer teacher mentor, experiences ranged from a half hour or less to as much as one full day. Table 25 shows the specific break down for those experiences while Table 26 shows the breakdown for the number of time participants shadowed a peer.

Table 26

Descriptive Statistics for Item 65 "How long did each shadow visit last?" on Mid-Point Survey

Length of Mentor Shadow Experiences	Frequency	Percent
30 minutes or less	1	3.3%
30 minutes to one hour	1	3.3%
One hour but less than two hours	2	6.7%
Two hours to a half day	1	3.3%
More than a half day but less than one full day	1	3.3%
One full day	1	3.3%
Respondents who did not respond to this question	23	76.7%

N=30

Table 27

Descriptive Statistics for Item 64 "How many times have you shadowed a peer mentor in one school year?" on Mid-Point Survey

Number of Times for Mentor Shadow Experiences	Frequency	Percent
Zero	17	56.7%
Once	3	10.0%
Twice	3	10.0%
Respondents who did not respond to this question	7	76.7%

N=30

Making a comparison or judgement from the pre-survey to the mid-point survey regarding the apparent increase in mentor shadowing participation would be faulty. Only twelve participants completed the pre-survey where more than twice that, specifically thirty, completed the mid-point survey. Additionally, several participants did not respond to all questions in the mentor shadowing section of the survey. Rather, a more comparable judgement could be made by comparing the mid-point survey to the post-survey.

Because measures to collect survey data were more productive for both mid-point and post-surveys (than pre-survey data), thirty respondents completed the post-survey as

well. Descriptive statistics for the post-survey for items 63 and 67 are displayed in Table 27 along with mid-point survey data.

Table 28

Descriptive Statistics from Mid-Point Survey October 2017 and Post-Survey January 2018 on Mentor Shadowing

Mentor Shadowing Questions	Yes % Frequency	No % Frequency	No Response
Mid-Point Survey for Items 63 and 67			
63. Have you ever shadowed a peer mentor as part of the mentor training?	23.3% 7	73.3% 22	3.3% 1
67. In general, did you find the mentor shadowing experiences(s) valuable to your practice as a mentor?	20% 6	0% 0	80% 24
Post-Survey for Items 63 and 67			
63. Have you ever shadowed a peer mentor as part of the mentor training?	43.3% 13	56.7% 17	0% 0
67. In general, did you find the mentor shadowing experiences(s) valuable to your practice as a mentor?	43.3% 13	6.7% 2	50% 15

N=30

From the mid-point survey in October 2017 to the post-survey in January 2018, mentor shadowing experiences more than doubled. This was also the case for the number of participants who found the mentor shadowing experience(s) valuable. Of interest are the two participants in the post-survey who responded to item 67 indicating they did not find the experience(s) valuable. This does not numerically make sense. Thirteen mentor teachers indicated they participated in mentor shadowing (item 63) with seventeen indicating they did not. For item 67, thirteen participants indicated they valued the experience while two indicated they did not and fifteen did not respond. It can be assumed that the two who selected "No" to item 67 should not have responded to this

item. This assumption can be substantiated by a review and coding of survey comments related to mentor shadowing experiences. No identifiable reason could be determined as to the lack of value associated with experiences. Rather, all comments related to content or topics of the experience(s) rather than the perceived benefits or lack of value associated with the experience(s).

Based upon participant comments, out of thirty-six comments, fourteen were about mentor shadowing experiences relating to the use of mentoring language. Eight comments related to the use of mentoring tools and/or protocols. Four comments were specifically related to conducting observation of beginning teachers. Three were related to modeling a lesson. Finally, the remaining comments covered such things as running a curriculum meeting, finding entry points in mentoring conversations, and an overview of the programs.

Finally, Tables 29 and 30 display descriptive statistics for the number and duration of mentor shadowing experiences.

Table 29

Descriptive Statistics for Item 64 "How many times have you shadowed a peer mentor in one school year?" on Post-Survey

Number of Times for Mentor Shadow Experiences	Frequency	Percent
Zero	10	33.3%
Once	6	20.0%
Twice	5	16.7%
Four	2	6.7%
Respondents who did not respond to this question	7	23.3%

N=30

Table 30

Descriptive Statistics for Item 65 "How long did each shadow visit last?" on Post-Survey

Length of Mentor Shadow Experiences	Frequency	Percent
30 minutes or less	2	6.7%
30 minutes to one hour	4	13.3%
One hour but less than two hours	3	10.0%
Two hours to a half day	4	13.3%
More than a half day but less than one full day	0	0%
One full day	1	3.3%
Respondents who did not respond to this question	16	53.3%

N=30

Qualitative Findings from Mentor Shadowing

Sun Valley interviews. Interviews of the six Sun Valley teacher mentors were conducted at Sun Valley High School District. Three themes became apparent after analyzing Sun Valley interview data. First, previous success in the classroom lead teacher mentors to believe they could succeed as a teacher mentor. Second, training that prepared teacher mentors for their job as well as support from surrounding personnel had a positive effect on teacher mentor self-efficacy. Finally, mentor shadowing experiences were extremely beneficial and had a direct positive impact on teacher mentor self-efficacy.

Theme one. The common theme of previous successes permeated interview data. All teacher mentors interviewed cited their previous professional successes as the reason for believing they would be successful as a teacher mentor. Four of the six teacher mentors specifically referred to their successes in the classroom as giving them confidence in their abilities to succeed as a teacher mentor. TM5 said his experience working with teams and his success in working with student teachers lead to his confidence in becoming a teacher mentor. He stated, "My experience mentoring went really really well." He was further supported in his success mentoring student teachers

when his "…student teacher's evaluator came in and talked good about her because I know that reflected on me…Yes, I taught her that so I felt pretty good about that." TM4 referenced not only his previous teaching experiences but his coaching experience also when he stated, "I have coached for thirty-three [years]. I've worked in the professional world. I've worked as a teacher…so obviously with all those experiences I could do this job." TM6 also referred to her coaching successes when she stated, "…I can help to identify strengths and weaknesses and the coach in me thinks that it's a good fit." TM6 went on to further speak about her past successes mentoring teachers while she was still a classroom teacher. "We had plenty of new teachers come into our department and I've just naturally ended up being the mentor with them…seeing those people be successful and stay awhile...they liked it. They didn't leave. They had success with students." Finally, having a rich educational background, TM4 provided a specific case in point with a student he had coached many years ago who had actually grown up to be a teacher and a coach herself. With great pride, he told of "…one of the kids I coached thirty years ago and [now] she was [a] coach. I took that kid where she felt like nobody and she finished at the top…"

Teacher mentors also demonstrated a confidence in their ability in general. TM5 stated he felt "…really strongly about my skills and I can adapt and do a lot of things…" indicating he had complete confidence in his adaptability and capabilities in his new position. The researcher also felt confidence in her abilities in general stating, "I was adept at what I was doing and felt comfortable." TM4 added a unique dimension to this idea when he said, "I've been pretty blessed. I've had 95% success and 5% failure so when I fail I rebound quickly."

Finally, some teacher mentors also felt confident in their abilities to be a teacher mentor because they were good at relationships. For example, TM1 referred to her strengths in this area stating, "…building rapport was a strength that I had naturally and I knew that I could do that." TM6 cited her ability to build relationships and rapport with students as one of the strengths that lead her to the idea she would be successful at mentoring when she stated she felt like she is "…good with people." Even if the teacher mentor being interviewed did not specifically identify their ability to build and maintain solid relationships as a strength it did come through as being an important factor in their ability to be successful as a teacher mentor.

Theme two. Training was also something all teacher mentors addressed which lead to the identification of theme two—lack of training had a negative impact on teacher mentor self-efficacy. TM1 and the researcher appeared to be the most greatly impacted by a lack of training. TM1 proclaimed "…it was almost a year [before] I had any formal training." She further shared:

> …there was no transition plan as a mentor. …I just kind of went with it. It was just more of like 'This is what your job might be looking like' but nothing really specific. There was no training specific to mentoring. (TM1)

When questioned more about how she adapted to her new position, she stated:

> I found myself just pretending that I knew what was going on and I really didn't know what was going on. I just figured, 'Okay, I'm a fast learner.' I'll just stay quiet and I'll just watch and eventually… I'll get it figured out. (TM1)

The researcher's experience was similar.

> My biggest challenge was not having that training initially, so I felt completely lost. I really didn't know what I was supposed to be doing and when I was supposed to be doing it. I just felt like there wasn't any guidance or direction. I didn't have any tangible training that said, "Do this. Say that. Do this." Instead, I'm like, "Hmmm, well, maybe I could do this and maybe I could do that." (Researcher)

The researcher felt so frustrated that at one point she considered not returning to her new position after the school year ended.

> I was lost and after my first half a year in this position I didn't know if I was going to do it again next year because I felt lost. I felt like I wasn't doing any good. I didn't know what I was doing. I was really frustrated. (Researcher)

When thinking more deeply about her initial foray into the position she described it as such: "More than anything I feel like I don't know what I'm doing and it's troubling. It was hard and I didn't like it and I thought I might go back into the classroom again."

TM2 was able to share the importance of training early on the teacher mentor's career since she "…had official formal training the first month I started." She further indicated, "…this job requires a lot of skill…" and "…the people that I've been effective with can point to things that we've talked about or worked on that they've done that have worked." TM4 clearly indicated his lack of previous mentor training and how it affected his ability to do his job early on in his position because he did not "…know exactly what to do…" and admitted, "I'm still trying to figure it out. And if I'm being honest…I'm struggling with…feeling effective." His struggle is "…knowing what needs to be done in order to make sure the teacher's needs are being met..." TM1's statement of "…layers

that should be in place to support a changing school with changing people" demonstrates the complexity of the job, while TM3 also speaks to the goal of the teacher mentor in "…trying to help these teachers become really effective teachers." TM3 followed that up with a reiteration that not only is mentor training important in skill development but it is critical towards increase self-efficacy, "…we see what they're doing and we know it's not effective, but how do we fix that? That's pretty frustrating."

Finally, TM4 was sharing a coaching incident she had with another teacher prior to becoming a teacher mentor. In that experience, she was coaching a teacher yet had not had any training on mentoring. The experience did not go well for her.

> In my mind, I really had thought it through and was sure of my decision and then the failure made me rethink, like, "Okay. If you were that sure and it resulted in those consequences and outcomes, you were obviously wrong." (TM4)

TM1 described the mentoring experience as being "…very personal…" and when it goes wrong "…you're thinking, 'Okay, what did I do wrong?'" In the end, the answers to these questions left the teacher mentors thirsting for training, specifically, TM3 stated, "Nothing replaces the Cognitive Coaching piece that actually has them reflect. That's pretty vital." At least one aspect of teacher mentors' low self-efficacy could be tied directly to their lack of training.

Theme three. Finally, one area that helped improve teacher mentor self-efficacy were the interactions teacher mentors had with their peers leading to awareness of the third theme—all Sun Valley teacher mentors not only found mentor shadowing experiences to be extremely beneficial but found that all interactions with their peers were beneficial in helping them develop their skills.

TM3 said one of the most beneficial things that occurred for him in his first two months in the position was shadowing each of the other teacher mentors because this is where he was able to learn more job specific skills. “Each one of you had a specific skillset that you shared. It wasn’t repeated or anything like that. So, I got almost like a three-in-one kind of personal training.” TM1 had the same experience when she mentor shadowed. “I was able to observe all the other mentors when I started [and] …that was just helpful, just to see how people conference. I saw a conference from each person.”

Less formal mentor shadowing occurred in unexpected ways. For example, TM2 stated, “Just being able to reach out to people and call other mentors, and ask, ‘Hey, this happened. I’m going to have this conference. I’m not quite sure how to take this.’ And just talking through being mentored for mentoring.” What she was trying to express was that being able to talk through mentoring conversations she did or would hold was very beneficial. It gave her validation for saying or handling things the way she did or gave her ideas and suggestions for handling conversations that were to come. She found this to be very beneficial and gave her confidence to handle those conversations as well as the ones to come in the future.

TM5 works at all Sun Valley schools which provides him the opportunity to “…touch base with all you guys, all other five mentors, and see how you do things. Me being new, I kind of pick up on things, even in conversation.” His specific teacher mentor position affords him the unique and frequent opportunity to have those mentor shadowing experiences that would have to be scheduled with the rest of the Sun Valley mentoring team and he appears to be taking full advantage of it. TM4 found it beneficial in:

> …hearing your experiences. We're fortunate as new mentors to have the time to work together and to be able to pick your brains, and to hear your conversations. You know, just hearing how other people do it. It's like a little potpourri to pick and choose a little bit. (TM4)

Finally, teacher mentors participated in meta-coaching experiences in their professional learning community where two teacher mentors would complete a mentoring conversation together. A third mentor would observe, taking notes, which were used in a debriefing conversation. TM2 and TM3 specifically cited how beneficial they believed these quasi mentor shadowing experiences to be. TM2 stated, "…doing the coach things each quarter. That's super helpful to me." While TM3 stated, "…mentoring the mentor was really helpful too because I think that builds our praxis to see real application pieces." Having the opportunity to coach and be coached, and then debrief the entire process comparing notes, thoughts, and ideas was very impactful on teacher mentor skill development and self-efficacy.

TMSES comments. Participants were asked to indicate the focus of their mentor shadowing observations on the TMSES. Using cognitive/ collaborative apprenticeship theory, comments were categorized subsequently falling into four general categories: (a) mentoring language; (b) support with use of mentoring tools; (c) observing mentees; and (d) anything that didn't fall into the previous three categories.

Fifteen comments related to observing mentoring conferences with twelve of those observations revolving around the use of mentoring language. Two participants also indicated they were observing post conferences while two other participants specifically cited the observation of cognitive coaching, a specific mentoring language, as the focus

of their observation. One participant indicated their mentor shadowing was an effort to observe entry points into the mentoring conversation while one other indicated they were observing a post conference indicating the participants may were in the development stage of cognitive/collaborative apprenticeship.

Eight participant comments were categorized into the use of mentoring protocols or tools. Five participants referenced the use of mentoring tools while the following comments were attributed to different participants: “data tracker,” “scripting,” “data collection,” and “analyzing video.” A data tracker is a tool utilized by teacher mentors to track time and topics with mentees. Scripting is the act of the teacher mentor recording verbatim either the teacher’s words, the students’ words, or both during the teacher mentor’s observation of their mentee. Data collection is the process by which the teacher mentor collects data during a mentee observation. Finally, analyzing video relates to the work conducted during the conference by the teacher mentor and their mentee using video data. All comments indicate that participants were in either the introduction stage or the development stage of cognitive/collaborative apprenticeship model.

Four comments in category three addressed the area of observation of mentees. While two comments specifically listed “observations,” one participant comment stated, “to compare our mentoring observations” which could be evidence of the proficiency stage of the cognitive/collaborative apprenticeship model. Finally, in much greater detail was the following comment, “The focus was to observe and compare our observation notes. We also collaborated on what went well and areas of improvement.” From this comment, it was much clearer what participants meant when they wrote that their mentor shadowing was in the area of observation allowing the assumption to being made that

participant experiences fell into stages one through three, or introduction to proficiency, of the cognitive/collaborative apprenticeship model.

The final category was created for comments that did not specifically relate to the previous three. Of the six comments, three appeared to be related to district programs or initiatives—"next steps aligned with goals," "running a curriculum team mtg," and "overview of programs." The final three comments were abstract enough that assumptions could not be made as to meaning— "metacoached," "moving through stances," and "to learn from each other."

Because the TMSES prompt was for participants to list the focus of their mentor shadowing, no assumptions could be made for their value. Rather, they were used to determine the basis and preponderance of shadowing experiences. As it relates to the cognitive and collaborative apprenticeship theory, assumptions can comfortably be made that the majority of mentor shadowing experiences predominately fell into stage one through stage three while only a very few mentor shadowing experiences were aligned to stage four, mastery.

Summary of Findings

Overall, teacher mentors that participated in mentor shadowing experiences focused on the craft of mentoring through the use of mentoring language, the use of data tools, and, in general, the honing of their skills as a teacher mentor. Shadowing opportunities were found to be very beneficial and ultimately led teacher mentors to feel more confident in their abilities.

CHAPTER 5

DISCUSSION

This study was designed to evaluate the impact that training and mentor shadowing had on teacher mentor self-efficacy. To do this, two aspects of the study took place. First, the Professional Learning Series – Mentor Academy Year One (PLS-MA1) provided by the Arizona K12 Center (AZK12) was evaluated by asking teacher mentor participants to complete three surveys in the first semester of the 2017-2018 school year. The second piece of the study involved the evolution of a mentor shadowing program in an Arizona school district. Data were gathered through individual interviews and a panel interview.

Overall, it was found that both the training provided by the AZK12 and the mentor shadowing program had a positive impact on teacher mentors' self-efficacy because it had the effect of giving teacher mentors the confidence to perform their job duties. Teacher mentors often expressed frustration and a sense of being lost early in their teacher mentor career stemming from a lack of awareness of their job duties or training to support them in performing their jobs. Through the training received from the AZK12, participants' confidence and self-efficacy increased over time. Similar results were found with mentor shadowing experiences.

Overall Themes

Based upon the results across survey and interview findings, it appeared teacher mentor self-efficacy was impacted by three general factors—(a) teacher mentor's confidence in their abilities; (b) the training teacher mentors received to perform their job duties; and (c) opportunities to shadow their peers.

Teacher mentors' confidence in their abilities. Because teacher mentors had success as classroom teachers, they entered their new position as a teacher mentor with a strong confidence in their abilities to perform in their new position. Teacher mentors expressed initial confidence in various ways, such as, being a nationally board-certified teacher, having experience working with unique personalities, unofficially mentoring other teachers, the ability to get along well with others, and having a good sense for what could become issues for teachers. The most interesting indicator of success came from a teacher mentor with a background in junior high science and experience in providing professional development work. She had a new science teacher on her caseload and believed this background and experience provided her with a specialized skillset that was of particular benefit. Finally, several teacher mentors indicated that if they were not successful in improving new teacher practices over time (typically one school year), their lack of success did not necessarily come from their lack of ability but from issues relating to personalities. This was such an issue with some teacher mentors they either refused to continue working with new teachers or requested that the new teacher in question be removed from their case load. For reasons they did not have control over, they were unable to build solid, trusting relationships with their new teachers.

Teacher mentor job training. Perhaps the biggest source of frustration for teacher mentors was the lack of job specific training they received prior to assuming their position. Both TM1 and the researcher stated they had no training at all prior to assuming their new role and, after that, there was very limited training. TM1 believed that had she been provided training she could have accelerated more quickly and been of greater support to her new teachers sooner fully supporting the theoretical framework of

cognitive and collaborative apprenticeship. Therefore, research question one—*How does participation in the Arizona K-12 Center's PLS-MA1 teacher mentor training impact teacher mentors' self-efficacy?*—was addressed as follows: teacher mentors that received training either before moving into their teacher mentor position or immediately upon moving into their new position provide evidence of the effectiveness of training on teacher mentor self-efficacy which is further supported by self-efficacy theory and cognitive and collaborative theory. Further, all teacher mentors participating in the Arizona K12 Center's Professional Learning Series – Mentor Academy Year 1 did demonstrate an increase in teacher mentor self-efficacy.

Mentor shadowing opportunities have a positive impact on teacher mentor self-efficacy. Addressing research question two—*How does participation in mentor shadowing impact the self-efficacy of teacher mentors?*—it appears that one of the most influential factors on teacher mentor self-efficacy comes from mentor shadowing opportunities. These opportunities take many forms, such as, formally scheduled appointments where one teacher mentor observes one of their peers' conferencing with or collecting data for a new teacher, formal teacher mentor meetings (also called forums) where teacher mentors collaborate and problem solve on issues related to their practice, and informal phone calls and conversations occurring organically. Sun Valley organizes mentor shadowing opportunities with its team each semester. Teacher mentors found the most value in these experiences because they could confirm or refine their own individual practices based upon what they saw their peers doing. Teacher mentors from the PLS-MA1 data collection interviews also referred to opportunities either to reach out to their peers or to meet with their peers. In either situation, they spoke to the value they found in

them and how very beneficial it was to their practice which is what one would expect when considering cognitive/collaborative apprenticeship theory.

Tying the Threads Together Across Cycles

Constants throughout the cycles. Some common ideas transcended each cycle of this study, such as, teacher mentors who desired support through professional development, the increasing size of teacher mentor caseloads, and the evolution of teacher mentor self-efficacy. With each rendition of this study, from cycle zero to the final dissertation study, teacher mentors all cried for the same thing—professional development in order to learn how to be a teacher mentor. Even teacher mentors who were experienced desired professional development in an effort to enhance and refine their mentoring skills. Finally, the trend in increasing teacher mentor self-efficacy has been a constant with each cycle of this study. As teacher mentors have had more training, more opportunities for peer support, and more time in their position, they have felt more confident in their abilities to do their job.

Changes through the cycles. Just as there were constants over three cycles, there were also things that changed. For cycle zero in 2015, Sun Valley teacher mentors had much smaller caseloads more aligned to recommendations from the New Teacher Center (2008). Over time, the increase in teacher turnover required teacher mentors to assume larger and larger caseloads to the point that in the 2017-2018 school year teacher mentors' average caseloads were in the high twenties and even in the low thirties for some mentors. Another change has been in the type of new teachers entering the profession. New teachers are coming in through alternative pathways rather than just entering by graduating from teacher colleges' preparation programs. This has definitely

put a strain on teacher mentors and induction programs. Finally, additional opportunities for professional development, such as Cognitive Coaching workshops, have been discovered through the Arizona K12 Center providing for an increase in the training that supports teacher mentor practice. This was especially valuable since the 2015 available outsourced mentor training for local school districts offered through consultant serves in association with Northern Arizona University was dissolved. Training provided through the Arizona K12 Center was there to support the much-needed professional development of teacher mentors.

Limitations of Study

There were several limitations with this study. First, as time progressed through the study and more was learned about available training resources for teacher mentors, the focus of the study shifted. Unfortunately, however, interview questions were not modified to align with the shifting of the study. In an effort to maintain consistency in interview questions, potentially interesting findings about other areas of mentor shadowing were not explored.

Second, another limitation was the small pool of Professional Learning Series – Mentor Academy Year 1 (PLS-MA1) teacher mentors available for data collection. Because the pool for PLS-MA1 consisted of only thirty-seven participants and only thirty completed the TMSES, it meant that nearly 19% of participant data was unavailable for study. Further, because there were only six Sun Valley teacher mentors involved in the study, it provided a narrow perspective.

Complementarity of Quantitative and Qualitative Data

The most interesting data collected turned out to be the quantitative data collected on the TMSES. There was an overall increase in teacher mentor self-efficacy over time with a dip at time two. Through the interview data, it was determined at the time of the pre-survey, participants did not know enough about mentoring new teachers to doubt their abilities in these areas. As a matter of fact, when considering self-efficacy theory (Bandura, 1993), it is likely they were very confident since they had been hired for the position because they were very successful classroom teachers. The confidence and knowledge they had in their abilities was gained from years of successful classroom instruction coupled with verbal recognition and praise from peers and supervisors. They also knew they were adept at building relationships and had already developed the start of strong trusting relationships with their teachers which added to their confidence in their abilities. Bullough (2005) found that teacher mentors who had little to no guidance for driving their mentoring had a desire to be nurturers and this is from where they found their identity, or in other words, their self-efficacy. It was not until they spent one quarter working with new teachers that they had cause to doubt their ability to adequately mentor these new teachers which is supported by Bullough (2005).

An even more severe downward trend from pre-survey to mid-point survey was evidenced for Retention. On the pre-survey, teacher mentors' confident was fairly high with teacher mentors indicating they could positively influence teacher retention. That changed dramatically by the mid-point survey though when their confidence level plummeted. In bringing the quantitative and qualitative data together, it can be assessed that realities relating to the complexity and craft of mentoring set in for teacher mentors

leading to the downward spike on the mid-point survey. By the time the final survey was solicited, teacher mentors felt more confident in their abilities and had a more realistic picture of what they could accomplish with their new teachers as a whole. Bullough (2005), Goldlick (2016), and Sudweeks (2005) speak to the complexity of mentoring and support training for teacher mentors because it provides for increased performance on the part of the teacher mentor. And, from what is known about self-efficacy theory (Bandura, 1977), which is discussed in greater detail in the following section, a subsequent increase in teacher mentor self-efficacy can be expected.

Results in Relation to Theoretical Frameworks and Supporting Literature

Theoretical frameworks. Both qualitative and quantitative data demonstrate support of complete alignment between the results of this study and both theoretical frameworks—Bandura's self-efficacy theory and the cognitive/collaborative apprenticeship model. Teacher mentors spoke repeatedly about the wealth of learning and confidence they gained through professional development and mentor shadowing opportunities both of which demonstrate alignment with both theoretical perspectives guiding this study. The most effective means to increasing mentor self-efficacy appears to be through peer observations, allowing teacher mentors to emulate effective mentoring practices and avoid ineffective mentoring practices, in addition to, be coached by their peers. Through these learning opportunities, growth occurred more quickly thereby increasing teacher mentor self-efficacy at a more expedient pace.

Supporting literature. Although limited, literature can be found to support the findings of this study. In March 2016, the New Teacher Center published a five-year 50-state report on the policy of mentoring and induction programs. Through their study, they

have determined that first, states are not doing enough to support new teachers and second, well-supported comprehensive induction programs are required to provide new teachers and students what they need to be successful (Goldrick, 2016). They further advise that qualified teacher mentors are a crucial element to provide adequate support of new teachers and the means for achieving qualified teacher mentors is through their initial training and on-going professional development (Goldrick, 2016).

Helman (2006) strongly supports mentor training stating that the conferences held between teacher mentors and new teachers are critical and require skills because of the complexity of their nature. To be successful with these conferences, teacher mentors need to have time to learn, practice, and reflect on these skills through modeling and role-playing (Helman, 2006).

Sudweeks (2005), in attempting to measure teacher mentor self-efficacy, actually discovered what he believed to be a larger problem relating to teacher mentor self-efficacy. Through his research, he discovered there was no definitive delineation in teacher mentor responsibilities (Sudweeks, 2005). This lack of clarity resulted in confusion for assigned duties. He further hinted at the necessity of training for teacher mentors and that it could only be provided through clearly defined roles, as well as, training and professional development specifically for teacher mentors (Sudweeks, 2005).

Finally, Hobson et al. (2009) indicated that training and professional development must be much more than just training. It must incorporate strategies for helping teacher mentors develop their own identities as a teacher mentor (Hobson et al., 2009). They specifically addressed the feelings of isolation and solitude that teacher mentors feel in their position (Hobson et. al, 2009) identifying this as a need which should be addressed.

Lessons Learned and Implications

Learning related to the researching process. Looking back at the process of this study there are several things that could have been done differently. First, interview questions should have been modified to align with the changing nature of the study as it evolved over time. Changes to research questions were so minor time after time that it was not until the final panel interview that it became evident just how out of alignment the interview questions had become as a result the changes to the research questions. In the end, valuable data was not collected that could have had an even more significant impact to the study as a whole.

Another adjustment to be made to the study would be the manner for conducting the pre-survey. The assumption was made that all participants in the PLS-MA1 workshop would be, if not eager then at least willing, to complete the requested surveys. As such, the first survey was solicited electronically. Getting participants to complete the survey was incredibly difficult and required numerous email requests literally begging participants to complete the survey. In the end, only twelve participants completed it meaning more than two-thirds of participant data was not available for evaluation.

Dissemination of study results. Results of this study will be provided to Sun Valley School District, the Arizona K12 Center, and the New Teacher Center. Sun Valley School District has committed to the support and growth of their new teachers through the use of a mentoring program. Their commitment to their new teachers through this program is evident in their support of their teacher mentors through the evolution of their mentoring program. As such, they will find the data on their mentor shadowing program beneficial because it supports a program they have invested in year after year. Because

the mentor shadowing portion of their mentor program is so beneficial to their teacher mentors, they should continue to utilize it as well as create more structure to it. Future consideration might include shadowing of mentors outside their district in order to further grow their teacher mentors and work towards having a model program in which other school districts could emulate.

Both the Arizona K12 Center and the New Teacher Center, which works in concert with the Arizona K12 Center in the creation and delivery of teacher mentor training programs, could find value in this study. Both organizations have expressed interest in the study as a means for supporting current measures in addition to providing feedback for further development of their teacher mentor professional development programs. Further, the Arizona K12 Center might find it beneficial to share findings from this study with beginning teacher mentors to alleviate any fears or insecurities new teacher mentors are feeling. It will help teacher mentors feel less isolated or alone in their fears and hopefully provide them with more confidence in their future development as a mentor.

Natural follow-up study. A natural follow-up study would be the impact novice teacher mentors have on new teachers compared to the impact experienced teacher mentors have on new teachers. Additionally, it would be interesting to study the impact trained teacher mentors have on new teachers versus the impact untrained teacher mentors have new teachers.

Personal Lessons Learned

The most significant personal learning which has occurred relates to the role school and district cultures play in supporting teacher mentors in their role. The position

of teacher mentor is a very isolated position. Frequently, teacher mentors spoke of feeling alone, and worse yet, feeling as if they and their job were not valued. They spoke of resistant teachers and resistant administration. Frequently, they were pulled from their primary job duties of mentoring new teachers to unrelated tasks. Often, teacher mentors were tasked with other job duties, such as, planning and preparing professional development for all teachers, mediating personality conflicts between teaching staff, and even substituting for absent teachers. All of this makes it that much more important that teacher mentors are coming together in support of each other. Teacher mentor professional learning communities are necessary in giving teacher mentors a place to share their struggles and access support in problem solving.

Another lesson learned relates to the art of mentoring itself. Mentoring is a complex complicated process very much like teaching. Training to support teacher mentors not only needs to occur upon entry into the position but should be ongoing and include opportunities for role-playing because this most quickly accelerates and develops the skills of teacher mentors.

Implications for Practice

Mentor training. Support for new teachers is a growing trend in education and often that support is coming in the form of the incorporation of mentoring programs. Several factors impact teacher mentor success and self-efficacy causing both of which to suffer greatly. Training is one factor to be considered as a necessary element of any mentoring program. If training is not provided upon entry into the position it will have further negative impact on new teacher growth and development because teacher mentors

are not trained in the methods that most expediently foster new teacher practices. Further recommendations are suggested in the following sub-section.

Recommendations for mentor training and support. Based on the results of this study, several recommendations are made that would not only support mentor development and self-efficacy but serve to increase teacher capacity ultimately leading to students who are college and career ready.

First, new mentors can benefit from reading several texts on mentoring. Two such texts that came up in the literature review and interviews with Sun Valley teacher mentors are Hall and Simeral's (2008) book on building the capacity of teachers. This text supports the new mentor's mindset shift which is required for their new position. A second book that was referenced was by Aguilar (2013). This text not supports a foundational mindset for beginning mentors but also addresses mentoring language.

Another recommendation comes in the form a PLCs. Mentors need their own PLC since they have unique challenges requiring confidentiality. A mentor PLC will provide them with the exact environment where they can be comfortable to discuss their practice in confidence. Not only does it provide a confidential environment but, it also provides a supportive environment in which mentors can share their challenges with the purpose being to problem-solve. With the opportunity of having multiple perspectives, mentors will create better solutions to issues than if they are left to their own accord.

Along with the idea of PLCs is a recommendation for mentors to participate in mentor forums, or in other words, gather with other mentors across districts. Currently, the AZK12 Center offers mentor forums where mentors have on-going training on mentoring tools and language; however, what is most beneficial in these forums are the

opportunities for role playing. Role-playing with mentors from other districts allows mentors an insight into the issues other districts encounter while at the same time allowing mentors to problem-solve together. For districts that are not able to participate in outsourced mentor forums, they could pull together a consortium of mentors from other districts who would be willing to meet. Naturally, it would require someone to take a leadership role and may require a little more time and effort, however, it would well worth the cost.

Finally, not enough value can be placed on training where mentors learn how to use mentoring language. This is a critical skill set for mentoring in which beginning teachers learn how to self-reflect through the mentoring language of their mentors. Numerous mentors spoke to the increase in self-efficacy because of participation in Cognitive Coaching seminars through the AZK12 Center. Cognitive Coaching (Costa, et. al, 2016) is a mentoring language that "…links physiology and cognition, which increase the importance of deep relationship skills and nuance within interactions" (p. 7).

Full release mentors. Another factor which has a negative impact on teacher mentors and mentoring programs in general was discovered through this study and is related to the time given to teacher mentors to work with their new teachers. On one extreme and, being the anomaly, is the program Sun Valley has where they have full release mentors. More common, however, was the mentoring program where classroom teachers taught full time but were asked to mentor one to three new teachers outside of their instructional day. In-between programs had mentors who were split with half days being instructional (in the classroom) and the other half being as a mentor. One halftime mentor who was split between job duties stated, "I don't think I can be as effective in this

half-and-half position." Not only did she split duties but she was also responsible for developing mentor and teacher curriculum for professional development in addition to induction programming and seminars. She said, "I feel like I'm just a fulltime teacher and a fulltime mentor and it's a little crazy…" Another teacher mentor who is also a fulltime classroom teacher admitted on the mid-point TMSES in October that she had only met with her "…novice teacher once." Having a mentoring program where teacher mentors are not fully released causes teacher mentor self-efficacy to suffer. Full release mentor programs are required for teacher mentors to be more successful.

Manageable caseloads. Even though Sun Valley does have full release mentors, there is another factor that negatively affects their ability to be successful and, therefore, their self-efficacy; it is caseload size. In the early years of Sun Valley's mentoring program, teacher mentors had caseloads aligned to recommendations of approximately one mentor to fifteen new teachers (Fletcher, Strong, & Vellar, 2008; Villar & Strong, 2007). As teacher turnover increased in their district and more novice teachers were hired it required teacher mentors to increase the number of new teachers they support despite the addition of one new teacher mentor position being added. Teacher mentors in Sun Valley now have an average of thirty new teachers they are responsible for supporting. TM3 indicated one of the factors that influenced a new teacher to resign midyear could have been because she "…wasn't spending enough time with them…" One participant entered the following comments on the TMSES regarding caseloads, "Caseload impacts ability to do all of this to my best ability." In addition, TM6 indicated, "I think my biggest challenge or biggest enemy is time." Large caseloads affect the teacher mentor's ability to effectively manage their new teachers and provide them the support they need.

Working towards mitigation of large caseloads is a requirement for the effectiveness of teacher mentors and mentoring programs in general.

Clearly defined program objectives. Through this study, it became evident there were multiple definitions of what it meant to be a teacher mentor and multiple designs for district mentoring programs. There also appeared to be a lack of communication from district leadership to teacher mentors and/or their mentor program directors. This lead to great confusion for teacher mentors ultimately having a negative impact on teacher mentor self-efficacy. Teacher mentors expressed a desire for knowing what their district goals were individually and for their position, as well as, a desire for clearly expressed expectations. Mentors expressed frustration in not clearly understanding what their district hoped to see them accomplish with first year teachers or what key areas they should be addressing with their new teachers.

Another area that has left teacher mentors confused relates to the type of new teachers entering the teaching profession within the last few years. New teachers usually found their way into a classroom by obtaining a teaching degree in college. The change in teacher certification requirements means more teachers are finding their way into the classroom through alternative means. This has put teacher mentors in a position for which they feel they are not either adequately qualified or adequately supported by the district in their current mentoring program. Teacher mentors believed basic skills and knowledge, critical toward success as a classroom teacher, were missing in the new teachers entering the profession through alternative means, and these new teachers required much more than what teacher mentors could provide. Teacher mentors recognized that what these new teachers need is intensive training that has typically been provided by colleges and

universities. Current mentoring programs are not structured to support the average college graduate who has never taught a class in their life nor have they had any training to teach a class. If teacher mentors are expected to successfully support alternatively certified new teachers then most current mentoring programs must change.

Implications for school districts. First and foremost, teacher mentors cannot be expected to just transition from a classroom teacher to a teacher mentor without some type of initial or transitional training. Often assumptions are made that if a classroom teacher is successful then they will also be successful as a teacher mentor. For that classroom teacher to be successful there were countless hours of training involved. The same is necessary for teacher mentors to become successful. Mentoring programs are much more effective if school districts provide training for their teacher mentors. Just as teaching is a craft learned through training and practice, so is mentoring. Teacher mentors that receive research-based training not only become more efficacious in their positions but have greater self-efficacy which tends to keep them in their positions longer in addition to allowing them to have a greater positive impact on new teachers.

Implications for research. Numerous studies abound on the topic of teacher self-efficacy; however, through a literature review on the topic of teacher mentor self-efficacy only one study could be located (Sudweeks, 2005). Sudweeks (2005) did conduct a study on teacher mentor self-efficacy but not for the purposes of disseminating findings on teacher mentor self-efficacy. Rather, he reported on the reliability of the tool utilized to collect the data (Sudweeks, 2005). It appears the self-efficacy of teacher mentors is a neglected aspect of the studies on the mentoring of new teachers. As such, this study will provide a foundation for future study. Additionally, as the mentoring trends continue,

more research needs to be conducted in the area of teacher mentor self-efficacy if the profession itself hopes to grow and become even more efficacious in their task.

Closing Thoughts

Being a teacher mentor can be a very fulfilling job; however, it can also be a very challenging job. The trend in providing teacher mentors to support new teachers possesses a gap which must be transcended if new teachers and teacher mentors are to be successful. That gap can only be transcended through a serious evaluation of district mentoring programs. Districts need to set clear and measurable goals for their mentoring programs with definable parameters. Teacher mentors must be provided with training and development upon transition into their new position. The most important consideration for teacher mentors, however, is to ensure they have manageable caseloads with ample opportunities to meet, confer with, and shadow their peers. Until this happens, teacher mentors may continue to struggle with their self-efficacy and their effectiveness.

REFERENCES

19 TAC Chapter 153, Subchapter BB. (2010). Retrieved from http://ritter.tea.state.tx.us/rules/tac/chapter153/ch153bb.html.

Aguilar, E. (2013). *The Art of coaching: Effective strategies for school transformation.* San Francisco, CA: Jossey-Bass.

Arizona School Board Association. (2015). Arizona education leaders: Where have all the teachers gone? Retrieved from http://azsba.org/wp-content/uploads/2015/05/2015-ASBA-Spring-Summer-AzEdNews.pdf.

Arizona Department of Education. (2014). State Accountability. http://www.azed.gov/accountability/state-accountability/.

Arizona Department of Education. (2015). *Alternative pathways to teacher certification.* Retrieved from http://www.azed.gov/educator-certification/files/2013/10/ihealternativepathflyer.pdf?20150610

Arizona Department of Education. (2016). Requirements for the teaching intern certificate. (August 06, 2016). Retrieved from https://cms.azed.gov/home/GetDocumentFile?id=57a606fbaadebe02a4f4f3d6.

Arizona K12 Center. (2017). Retrieved from http://azk12.org/event/29736/details.

Arizona State University. (2017). *ITeachAZ.* Mary Lou Fulton Teacher's College. Retrieved from https://education.asu.edu/iteachaz.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist 37*(2), 122-147.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review 8*(2), 191-215.

Bandura, A. (1971). Social learning theory. Retrieved from https://myasucourses.asu.edu/bbcswebdav/pid-12092670-dt-content-rid-60392249_1/courses/2015Fall-D-TEL703-TEL711-81334-81335/bandura_sociallearningtheory.pdf.

Bandura, A. (1997). The nature and structure of self-efficacy. *Self-efficacy: The exercise of control*. New York, NY: Cambridge University Press.

Bandura, A. (undated). *Teacher self-efficacy scale.* Retrieved from http://u.osu.edu/hoy.17/files/2014/09/Bandura-Instr-1sdm5sg.pdf.

Benson, P. (2014). Task force on Arizona's teacher crisis: We need more money. Retrieved from http://www.cbs5az.com/story/27578908/task-force-on-azs-teacher-crisis-we-need-more-money.

Brinkmann, S. and Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing.* Thousand Oaks, CA: SAGE Publications, Inc.

Bullough, R. (2005). Being and becoming a mentor: School-based teacher educators and teacher educator identity. *Teaching and Teacher Education 21*, 143-155.

Cherry, K. (2016) What is sociocultural theory? Retrieved from https://www.verywell.com/what-is-sociocultural-theory-2795088.

Childre, A. and Van Rie, G. (2015). Mentor teacher training: A hybrid model to promote partnering in candidate development. *Rural Special Education Quarterly 34*(1), 10-16.

Cochran, J. (July 21, 2015). Arizona school admins scrambling, again, to hire teachers. Retrieved from http://www.azcentral.com/story/news/local/arizona/2015/07/21/school-administrators-scrambling-hire-teachers-school-year-looms/30468631/.

Collins, A., Brown, J. S., & Holum, A. (1991). Cognitive apprenticeship: Making thinking visible. *American Educator, 15*(3), 6-11.

Collins, J. L. (1982). *Self-efficacy and ability in achievement behavior.* Paper presented at the annual meeting of the American Educational Research Association, New York.

Common Core Standards. (n.d.) Retrieved from http://www.corestandards.org/about-the-standards/frequently-asked-questions/.

Council of Chief State School Officers. (2011). Interstate teacher assessment and support consortium (InTASC) model core teaching standards: A resource for state dialogue. Washington, CD: Author.

Costa, A., Garmston, R., Hayes, C. & Ellison, J. (2016) *Cognitive coaching: Developing self-directed leaders and learners.* Lanham, MA: Rowman & Littlefield.

Costa, A., Garmston, R., Hayes, C. & Ellison, J. (2013) *Cognitive coaching seminars foundation training: Learning Guide.* Sacramento, CA: Cognitive Coaching Seminars.

Cuban, L. (1969). Teacher and community. *Harvard Educational Review, 39*(2), 253-272.

Cuban, L. (1992). Managing dilemmas while building professional communities. *Educational Researcher*. Retrieved from http://www.jstor.org.ezproxy1.lib.asu.edu/stable/pdf/1176344.pdf?acceptTC=true.

culture. [Def. 1 & 2]. (n.d.). In *Merriam Webster online dictionary,* (11th ed.). Retrieved from http://www.merriam-webster.com/dictionary/culture.

Denton, C., & Hasbrouck, J. (2009). A description of instructional coaching and its relationship to consultation. *Journal of Educational and Psychological Consultation*, 19, 150-175. Retrieved from DOI: 10.1080/10474410802463296.

DiMaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147-160. Retrieved from http://www.jstor.org/stable/2095101.

Doyle, K. (2012). Powerful alignment: Building consensus around the common core state standards. *Language and Literacy Spectrum, 22*, 7-23. Retrieved from http://files.eric.ed.gov/fulltext/EJ991805.pdf.

Fantozzi, V. B. (2013). "Oh god, she is looking at every little thing I am doing!" student teachers' constructions of the observation experience. *Current Issues in Education, 16*(1), 14. Retrieved from http://login.ezproxy1.lib.asu.edu/login?url=http://search.proquest.com/docview/1413414187?accountid=4485.

Feiman-Nemser, S. (1996). Teacher mentoring: A critical review. *ERIC Digest, 95*(2).

Fletcher, S., Strong, M., & Villar, A. (2008). An investigation of the effects of variations in mentor-based induction on performance of students in California. *Teachers College Record*, 110 (10), 2271–2289.

Flick, U. (2014). *An introduction to qualitative research.* Thousand Oaks, CA: SAGE Publications, Inc.

Fraenkel, J. R. & Wallen, N. E. (2005). Validity and reliability. In J. R. Fraenkel and N. E. Wallen, How to design and evaluate research in education with PowerWeb (pp. 152-171). Hightstown, NJ: McGraw Hill Publishing Co.

Fullen, M., Rincon-Gallardo, S., & Hargreaves, A. (2105). Professional capital as accountability. *Education Policy Analysis Archives, 23*(15). Retrieved from http://dx.doi.org/10.14507.epaa.v23.1998.

Gagen, L., and Bowie, S. (2005). Effective mentoring: A case for training mentors for novice teachers. *Journal of Physical Education, Recreation and Dance, 76*(7), 40-45.

Glazer, E. M. and Hannafin, M. J. (2006). The collaborative apprenticeship model: Situated professional development within school settings. *Teaching and Teacher Education 22*, 179-193.

Goldrick, L. (2016). *Support from the start: A 50-state review of policies on new educator induction and mentoring.* Retrieved from https://newteachercenter.org/wp-content/uploads/2016CompleteReportStatePolicies.pdf.

Grusec, J. (1992). Social learning theory and developmental psychology: The legacies of Robert Sears and Albert Bandura. *Developmental Psychology, 28*(5), 776-786.

Hall, P., & Simeral, A. (2008). *Building teachers' capacity for success a collaborative approach for coaches and school leaders*. Alexandria, Va.: Association for Supervision and Curriculum Development.

Helman, L. (2006). What's in a conversation? Mentoring stances in coaching conferences and how they matter. In B. Achinstein & S. Athanases (Eds.), *Mentors in the making: Developing new leaders for new teachers*, (pp. 69-82). New York: Teachers College Press. Retrieved from ProQuest Education Journals.

Herr, K. and Anderson G. (2015). *The action research dissertation: A guide for students and faculty.* Thousand Oaks, CA: SAGE Publications, Inc.

Hobson, A., Ashby, P. Malderez, A., and Tomlinson, P. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education 25*, 207-216.

Ingersoll, R. (2012). Beginning teacher induction: What the data tell us. *Phi Delta Kappan 93*(8), 47-51. Retrieved from http://www.kappanmagazine.org/content/93/8/47.

Ingersoll, R., & Smith, T. (2003). The wrong solution to the teacher shortage. *Educational Leadership, 60*(8), 30-33. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.182.106&rep=rep1&type=pdf.

Irish, L. (September 16, 2016) Shortage has districts attracting teachers in new ways. Retrieved from http://azednews.com/2016/09/14/teacher-shortage-leads-az-superintendents-to-attract-educators-in-new-ways/.

Ivankova, N. (2015). *Mixed methods applications in action research: From methods to community action.* Thousand Oaks, CA: SAGE Publications, Inc.

Jones, M. and Straker, K. (2006). What informs mentors' practice when working with trainees and newly qualified teachers? An investigation into mentors' professional knowledge base. *Journal of Education for Teaching, 32*(2), 165-184.

Jordan, M., Kleinsasser, R., & Roe, M. (2014). Wicked problems: Inescapable wickedity. *Journal of Education for Teaching, 40*(4), 415-430.

Kang, S., & Berliner, D. (2012). Characteristics of teacher induction programs and turnover rates of beginning teachers. *The Teacher Educator, 47*(4), 268-282. Retrieved from http://doi:10.1080/08878730.2012.707758.

Klieger, A. and Ster-Levinz, A. (2015). The influence of teacher education on mentor teachers' role perception in professional development schools. *Journal of Education for Teaching, 42*(2), 115-127. DOI: 10.1080/02607476.2015.10100873.

Knight, J. (2007). *Instructional coaching: A partnership approach to improving instruction.* Thousand Oaks, CA: Corwin Press.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education, 4*(2), 193-212.

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs, NJ: Prentice-Hall.

Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. New York: Pearson Education.

Loyola Marymount University. (2017). Survey design. Retrieved from http://academics.lmu.edu/media/lmuacademics/strategicplanningacademiceffectiveness/officeofassessment/christine/Survey%20Design.pdf.

Marzano, R., & Simms, J. (2012). *Coaching classroom instruction*. Bloomington, IN: Marzano Research

McIntyre, D., & Hagger, H. (1996). *Mentors in schools: Developing the profession of teaching*. London: David Fulton.

McLeod, S. (2014). Bobo doll experiment. *Simply Psychology.* Retrieved from http://www.simplypsychology.org/bobo-doll.html.

Mertler, C. (2014). *Action research: Improving schools and empowering educators*. Thousand Oaks, CA: SAGE Publications, Inc.

Meyer, J. W., Ramirez, F.O., & Soysal, Y. N. (1992). World expansion of mass education, 1870-1980. *Sociology of Education, 65*(2), 128-149. Retrieved from http://login.ezproxy1.lib.asu.edu/login?url=http://search.proquest.com/docview/62838450?accountid=4485.

Moir, E. (n.d.). Phases of first-year teaching. Retrieved from http://opi.mt.gov/pdf/SpecED/Mentor/PhasesFirstYearTeaching.pdf.

New Mexico Public Education Department. (2008). *Support for new teachers through high-quality mentoring and induction.* New Mexico Transition to Teaching Program of the Professional Development Bureau. Retrieved from http://teachnm.org/uploads/docs/mentor_packet.pdf Profession.

New Teacher Center. (2016). *Continuum of Mentoring Practice*. Santa Cruz, CA: New Teacher Center.

New Teacher Center. (2011). *Continuum of Mentoring Practice*. Santa Cruz, CA: New Teacher Center.

New Teacher Center. (2015). *Designing Effective Instruction*. Santa Cruz, CA: New Teacher Center.

New Teacher Center. (2015). *Instructional mentoring: Field guide*. Santa Cruz, CA: New Teacher Center.

New Teacher Center. (2015). *Observing and conferencing: Field guide*. Santa Cruz, CA: New Teacher Center.

New Teacher Center. (2015). *Using data to inform instruction: Field guide*. Santa Cruz, CA: New Teacher Center.

Neumerski, C. (2012). Rethinking instructional leadership, a review: What do we know about principal, teacher, and coach instructional leadership, and where should we go from here? *Educational Administration Quarterly, 49*(2), 310-347.

Oregon Department of Education Teaching Research Institute. (2015). *Fast facts: Mentoring retention.* Retrieved from http://www.ode.state.or.us/opportunities/grants/nclb/title_ii/a_teacherquality/mentoringfastfacts3retention.pdf.

Oregon Department of Education Teaching Research Institute. (2015). *Fast facts: Mentoring retention 2.* Retrieved from http://5c2cabd466efc6790a0a-6728e7c952118b70f16620a9fc754159.r37.cf1.rackcdn.com/cms/Fast_Facts_Retention_2_Final_3159.pdf.

Oregon Department of Education Teaching Research Institute. (2014). *Oregon department of education mentoring program for beginning teachers & beginning administrators*. Retrieved from http://5c2cabd466efc6790a0a-6728e7c952118b70f16620a9fc754159.r37.cf1.rackcdn.com/cms/ODE_Mentoring_Evaluation_Report_2014_931.pdf.

Oregon Educational Act for the 21st Century. (2015). *Chapter 329.* Educational Improvement and Reform. Retrieved from https://www.oregonlegislature.gov/bills_laws/ors/ors329.html.

Orland. L. (2001). Reading a mentoring situation: One aspect of learning to mentor. *Teaching and Teacher Education, 17*, 78-88.

Parise, M. and Forret, M. (2007). Formal mentoring programs: The relationship of program design and support to mentors' perceptions of benefits and cost. *Journal of Vocational Behavior, 72*, 225-240.

Portner, H. (2005). *Teacher mentoring and induction: The state of the art and beyond.* Thousand Oaks, CA: Corwin Press.

Ripon Area School District. (2012). *Teacher mentoring program.* Retrieved from http://www.ripon.k12.wi.us/staff_forms/Mentor%20Handbook%202012.pdf.

Reiser, L. (2016). *Maricopa school district offering big bonuses to recruit teachers.* Retrieved from http://www.azfamily.com/story/32170311/maricopa-school-district-offering-big-bonuses-to-recruit-teachers.

Robbins, P. (2015). *Peer coaching to enrich professional practice, school culture, and student learning.* Alexandria, VA: Association for Supervision and Curriculum Development.

Rosenburg, T. (2013, February 27). When deviants do good. *The New York Times*. Retrieved from http://opinionator.blogs.nytimes.com/2013/02/27/when-deviants-do-good/?_r=0.

Saldana, J. (2016). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications, Inc.

School Board of Highlands County. (2013). *Beginning educator support team program (B.E.S.T.).* Retrieved from https://www.highlands.k12.fl.us/sbhc/HRRPD/RTTT/BEST_Program_REV_June_2013.pdf.

School Board of Highlands County. (2009). *Mentoring and peer teacher program portfolio.* Retrieved from http://www.highlands.k12.fl.us/SBHC/HRRPD/Mentoring_Docs/Mentoring_Handbook_0910.pdf.

Schwarzer, R., Schmitz, & G., Daytner, G. (1999). *Teacher self-efficacy*. Retrieved from http://userpage.fu-berlin.de/~health/self/selfeff_public.htm.

Showers, B., & Joyce, B. (1996). The Evolution of peer coaching. *Educational Leadership, 53*(6), 12-14. Retrieved from http://www.ascd.org/publications/educational-leadership/mar96/vol53/num06/The-Evolution-of-Peer-Coaching.aspx.

Sloat, E. (2016). *Reliability introduction* [PowerPoint slides]. Retrieved from https://myasucourses.asu.edu/bbcswebdav/pid-13754993-dt-content-rid-83009995_1/xid-83009995_1.

Son Valley. (2017). AzMERIT scores.

Son Valley. (2017). 2010-2016 dropout rate study – ADE.

Son Valley. (2017). 2011-2017 ethnic study.

Son Valley. (2017). 2010-2016 graduation rate study.

Sudweeks, R. (2005). Measuring the self-efficacy of mentor teachers. *Academic Exchange Quarterly*. Retrieved from https://www.thefreelibrary.com/Measuring+the+self-efficacy+of+mentor+teachers.-a0142636414.

Sutton, R., & Rao, H. (2014). *Scaling up excellence: Getting to more without settling for less*. New York: Crown Business.

Tschannen-Moran, M., & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education,* 17, 783-805.

Teemant, A., Wink, J. & Trya, S. (2011). Effects of coaching on teacher use of sociocultural instructional practices. *Teaching and Teacher Education*, 27, 683-693.

University of Texas at Austin. (2017). *Experiential learning defined.* Faculty Innovation Center. Retrieve from https://facultyinnovate.utexas.edu/teaching/strategies/overview/experiential-learning.

University of Virginia. (n.d.). *Using and interpreting Cronbach's alpha.* Retrieved from http://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/

Vedantam, K. (2017). *Teaching the teachers to stay in Arizona.* Cronkite News Arizona PBS. Retrieved from https://cronkitenews.azpbs.org/2017/01/10/community-initiative-focuses-creating-teachers/.

Villar, A. & Strong, M. (2007). Is mentoring worth the money? A benefit-cost analysis and five-year rate of return of a comprehensive mentoring program for beginning teachers. *ERS Spectrum, 25*(3), 1-17.

Villarreal-Carman, T. (2016) *Professional learning series: Year one.* Arizona K-12 Center.

Weick, K. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly, 21*(1), 1-19.

Weick, K. (1984). Small wins: Redefining the scale of social problems. *American Psychologist, 39*(1), 40-49.

APPENDIX A

THE CONTINUUM OF MENTOR PRACTICE

From: Theresa Myers <tmyers@newteachercenter.org>
Sent: Friday, April 13, 2018 9:03 AM
To: Teri Thomsen <teri.thomsen@tuhsd.org>
Cc: Lauren Empson <lempson@newteachercenter.org>
Subject: Re: Continuum of Mentoring Practice

Hi Teri,

You have approval to use the continuum. Please use this citation: © 2011. New Teacher Center.

Thank you

New Teacher Center

Continuum of Mentoring Practice



Table of Contents

Introduction 2

How to Use 3

Glossary of Terms 3

Standard 1: Facilitates and advances the professional learning of each teacher to increase student learning 4

Standard 2: Creates and maintains collaborative and professional partnerships to advance teaching practice and student learning 4

Standard 3: Utilizes knowledge of standards, pedagogy, and research to advance teaching practice and student learning 5

Standard 4: Promotes professional learning for teachers for continuous improvement and student learning 6

Standard 5: Uses assessment data to advance teaching practice and student learning 8

Standard 6: Develops as a professional leader to advance mentoring and the profession 10

Acknowledgements

The New Teacher Center wishes to acknowledge the contributions of the Santa Cruz/Silicon Valley New Teacher Project's leadership team for their original work in developing both the ***Mentor Standards and the Continuum of Teacher Development.*** We also acknowledge the contributions of Cynthia Balthaser, Wendy Baron, Laura Gschwend, Jenny Morgan, Colleen Stobbe, and Sinclair Research Group.

© 2011 New Teacher Center. All rights reserved.

Introduction

The Continuum of Mentoring Practice, aligned with The Teacher Leader Model Standards, describes mentor knowledge, abilities, and dispositions that focus on advancing beginning teacher professional practice and promoting student learning. Informed by over three decades of experience supporting the development of thousands of mentors, this document was developed to support mentors' reflective practice and goal setting. It presents a holistic view of mentoring, based on six professional standards:

- **Facilitates and advances the professional learning of each teacher to increase student learning.**
- **Creates and maintains collaborative and professional partnerships to advance teaching practice and student learning.**
- **Utilizes knowledge of standards, pedagogy, and research to advance teaching practice and student learning.**
- **Promotes professional learning for teachers for continuous improvement and student learning.**
- **Uses assessment data to advance teaching practice and student learning.**
- **Develops as a professional leader to advance mentoring and the profession.**

The order in which the six standards are presented does not represent a hierarchy or suggested sequence of mentor development. Each standard contains a set of specific elements that describe mentoring practice. They are interrelated and work together to provide a complete picture of effective mentoring practice.

The Continuum of Mentoring Practice describes three levels of development, labeled Exploring/Emerging, Applying, and Integrating/Innovating. Each level indicates what a mentor should know and be able to do in the different standard areas. These levels do not necessarily represent a chronological sequence in a mentor's growth, but, rather, a developmental progression of practice. A mentor may be at an exploring level of development in some places on the continuum and at advanced levels in others, no matter how many years s/he has been mentoring. Any practice described on the left of the continuum is implicitly present across the entire continuum. A mentor's level of practice may fluctuate depending upon a number of contextual factors: adjustments in the number of beginning teachers a mentor assists, changes in or at school sites where the mentor supports new teachers, curriculum changes, alterations in the induction program's expectations or practices, expanded or decreased responsibilities as a mentor, etc.

How to Use

The Continuum of Mentoring Practice can be used for a variety of purposes. Each of these uses supports a reflective, formative professional growth process for mentors. Effective instructional mentors will likely engage their beginning teachers in similar processes of reflection, assessment, and ongoing development.

Self-Assessment

The Continuum of Mentoring Practice allows mentors to deepen their understanding of their own professional development in that it is a tool that mentors use to assess their own mentoring practice. To self-assess, mentors read across each row of descriptors from left to right. Each practice level includes all the descriptors contained in the levels to the left. As mentors locate the descriptors that best describe their current mentoring practice, they may enter the date of their self-assessment in the appropriate box and/or highlight those accomplishments. In this way, a mentor can later consult the *Continuum* and easily note specific areas of professional growth.

Goal-Setting

By describing the various levels of practice, ***The Continuum of Mentoring Practice*** helps mentors examine their mentoring and make informed decisions about their ongoing development as professionals. With the support of mentor colleagues and program leaders, mentors can be guided through a collaborative process for setting goals. Individual learning plans or professional growth plans can provide strategies to assist mentors' development while also documenting their progress. "Check-ins" at mid-year and year-end can help mentors celebrate their practice achievements while encouraging them to revise and continue their personal learning journey.

Mentor Professional Development

The Continuum of Mentoring Practice is not meant to be used as a rubric to define performance standards or expectations, nor is it intended to serve as an isolated observation instrument. However, by providing a common language that describes mentoring practice, this document helps induction program leaders and mentors engage in discussions of practice and subsequently plan meaningful professional development to advance that practice. ***The Continuum of Mentoring Practice*** helps program leaders support the development of their mentors in the same responsive ways in which they expect mentors to support their beginning teachers.

Glossary of Terms

Continuum: a document describing different levels of practice or knowledge across various stages of development

Descriptor: an individual cell, or box, corresponding to the developmental levels in the continuum

Standard: one of six areas of mentoring practice that comprise the continuum

Element: a sub-area of teaching practice within any of the six standards

Level: the stages of mentor development that indicate what a mentor should know and be able to do.

- **Exploring/Emerging:** a level of professional development in which the mentor relies on ongoing assistance from more experienced colleagues for support, guidance, and survival. The mentor is trying to internalize and apply what s/he has learned about mentoring. The mentor is moving toward becoming more self-directed and independent in her or his practice.
- **Applying:** a level of development in which the mentor is able to mentor independently, internalizes, and easily applies what s/he has learned about mentoring.
- **Integrating/Innovating:** a level of development in which the mentor is fully skilled, confident, and able to integrate such complex elements as reflective conversations, formative assessment, differentiated support, and the design of professional development into practice. The Integrating/Innovating mentor often becomes a leader among peers by contributing to the broader educational community through staff development, research, or publication in professional journals.

Standard 1: Facilitates and advances the professional learning of each teacher to increase student learning

	Emerging/Exploring	Applying	Integrating/Innovating
1.1. Uses reflective conversation skills to engage the teacher in collaborative problem solving and reflective thinking to promote self-directed learning that results in student learning.	Learns mentoring language protocols. Listens attentively to respond appropriately. Engages the teacher in collaborative problem solving.	Uses mentoring language to facilitate positive, productive, reflective conversations and models reflective practice based on student results. Applies instructive, collaborative, and facilitative mentoring strategies consciously to promote thinking and problem solving that advances teacher practice and student learning.	Strengthens repertoire of reflective conversation skills and moves fluidly among mentoring strategies to promote teacher confidence and autonomy. Effectively addresses sensitive issues and resistance. Encourages ongoing reflection, critical thinking, and risk taking to promote self-direction, collaborative problem solving, and improvements in teacher practice and student learning.
1.2. Uses a variety of strategies and resources, to respond to the teacher's professional needs and to the diverse learning needs of all students.	Responds to the professional needs of the teacher by providing timely access to an array of teaching strategies, resources, and materials that support the diverse learning needs of students.	Shares a variety of research-based teaching strategies selected to meet the diverse learning needs of students and improve practice and student learning.	Seeks and shares new strategies and resources from the broader professional community to respond to the teacher's professional needs. Facilitates the teacher's strategic integration of those strategies and resources to improve practice, differentiate instruction, and advance student learning.
1.3 Engages the teacher in examination of data to improve practice and advance student learning.	Uses formative assessment data to inform the teacher's next steps. Records the reflective conversations on graphic organizers/tools that help facilitate data analysis and data-driven conversations.	Responds to the needs of the teacher by providing specific formative assessment data and data analysis for both short- and long-term teaching goals and for problem solving and decision making to improve student learning.	Integrates multiple methods and tools of observation and data collection to create and utilize opportunities for examination and improvement of practice and student learning.
1.4 Uses technologies to advance teacher practice and maximize student learning.	Supports the teacher to use available technologies to expand abilities to research instructional resources, use technology during instruction, monitor student learning, and support student access to content.	Shares information on additional technologies to support the teacher to meet the diverse learning needs of students. Teaches and models the effective use of technology to promote equitable access to content and advanced learning opportunities for the full range of students.	Maintains current knowledge of a wide range of technologies for teacher and student use. Facilitates and advocates for the integration of technologies in ways that support teachers to ensure that all students have equitable access to standards-based content and to maximize their learning.

	Emerging/Exploring	Applying	Integrating/Innovating
1.5 Facilitates and promotes collaborative inquiry, data analysis, and reflection on practice to promote student learning.	Collaborates with the teacher to effectively utilize the inquiry cycle of plan, teach, and reflect in order to improve teaching practice.	Models the inquiry cycle by collaborating with the teacher to design and observe lessons and analyze corresponding student work and observation data to improve student learning.	Fosters as a habit of mind the ongoing inquiry into practice through the cycle of plan, teach, reflect to improve practice and advance student learning.
1.6 Draws upon the teacher's background and experiences to guide mentoring.	Engages teacher in dialogue about background in teaching and experiences in teacher preparation. Utilizes knowledge of teacher background and experiences in support of problem solving.	Expands knowledge of teacher background and experiences. Supports the teacher to utilize personal background and experiences to address challenges and obstacles and as reference points for reflection on to improve practice and student learning.	Draws on thorough understanding of teacher to strategically support the teacher to utilize prior knowledge to guide and inform practice and advance student learning.

Standard 2: Creates and maintains collaborative and professional partnerships to advance teaching practice and student learning

	Emerging/Exploring	Applying	Integrating/Innovating
2.1. Facilitates trust, caring and honesty among colleagues to build ownership and solve problems, resulting in actions that support student learning.	Builds a positive relationship with the teacher. Listens actively, shows respect for teacher's background and culture, maintains confidentiality, and honors commitments. Engages the teacher in taking responsibility for making changes in practice to meet the diverse learning needs of students.	Builds and maintains an effective relationship of trust, caring, respect, and honesty. Engages in ongoing conversations that examine the teacher's practice and student learning in ways that improve practice and student learning.	Fosters a sustained trusting, caring, relationship based on professional honesty and mutual respect. Facilitates the teacher's ability to analyze complex teaching issues and concerns and take responsible risks to advance practice and maximize student learning.
2.2 Uses coaching and collaboration time effectively, implementing procedures and routines that advance professional learning.	Respects the teacher's time, meets individual needs, provides ongoing collaboration, and completes program requirements.	Anticipates the needs of the teacher and is alert to entry points and use of formative assessment to address issues of practice and learning needs of students. Prioritizes and balances program requirements and the teacher's immediate needs.	Provides timely and seamless integration of the program requirements, mentoring processes, and use of formative assessment in meeting the teacher's needs. Uses procedures, routines and tools that increase efficiency and help energize the mentoring experience.
2.3 Facilitates the teacher's self-examination of their own understandings of the culture and diversity of the school and community to advance practice and ensure high levels of learning for all students.	Collaborates with the teacher to gather information about the diversity and cultural norms of the students, school, families, and community.	Engages the teacher in self-examination of how his/her own life experiences, perspectives, culture, language, and racial identity impact teaching and student learning. Guides teacher in interactions with families and in implementing instructional strategies that are culturally responsive.	Facilitates the teacher's ongoing practice of analysis of personal perceptions and understandings of diversity and cultural norms in the school and community. Is able to engage the teacher in dialogue and action regarding sensitive issues of personal, professional, and/or institutional bias that impact student learning.
2.4. Models and teaches how to build effective partnerships with families, stakeholders, and colleagues that foster equitable achievement for students of all backgrounds.	Fosters an ongoing relationship with the site administrator and other site and district personnel. Supports the teacher to engage with colleagues, site administrator, and families in ways that contribute to building positive and respectful relationships and student learning.	Supports the teacher in working collaboratively and/or developing professional partnerships with families, resource personnel, colleagues, site administrator, and community members. Guides teacher in connecting collaborations and partnerships to meeting the diverse learning needs for students of all backgrounds.	Engages the teacher in applying leadership skills and utilizing a wide variety of strategies that ensure effective interactions, collaborations, and partnerships with site personnel, families, and community groups and result in improving student learning.

Standard 3: Utilizes knowledge of standards, pedagogy, and research to advance teaching practice and student learning

	Emerging/Exploring	Applying	Integrating/Innovating
3.1 Utilizes knowledge of California Standards for the Teaching Profession (CSTP), common core standards/content standards, pedagogy, and academic language development to advance teaching practice and student learning.	Uses knowledge of CSTP, common core standards/content standards, and instructional strategies to guide teacher planning and implementation of standards-based instruction to meet assessed needs of students. Supports teacher to plan lessons that include teaching academic language and vocabulary development to provide student access to learning standards-based content.	Uses knowledge of CSTP, common core/ content standards and strategies to ensure that all planning, observations, and analysis of student work are standards-based and matched to student learning data. Guides the teacher in selecting, adapting, and implementing instructional strategies to teach academic language that result in improved student learning of content.	Facilitates teacher's routine use of CSTP, common core/content standards, related pedagogy, and strategies for academic language development, in planning, implementing, and reflecting on effectiveness of strategies to advance student learning.
3.2. Uses knowledge of educational research and best practices to improve instruction and student learning.	Shares research-based instructional strategies and best practices with teachers to improve practice and matched to student learning needs.	Integrates educational research and best practices into collaborations with teacher. Supports the teacher to implement best practices to address a range of student learning needs.	Collaborates with teacher to implement research-based instructional strategies and best practices targeted to meet identified and evolving needs of students. Fosters teacher awareness of and access to membership in professional organizations, learning communities, and/or educational journals.
3.3. Uses knowledge of equity principles and culturally responsive pedagogy to address issues of equity, bias, and access to standards-based curriculum to advance teacher practice and student learning.	Identifies issues of equity, bias, and access to standards-based curriculum for students in the classroom. Seeks opportunities to develop and use classroom data to raise teacher's awareness of issues and to refine teacher's knowledge of equity principles and culturally responsive pedagogy to meet needs.	Guides the teacher in analysis of student work to examine the possible impact on student learning of issues of equity, bias, and access to standards-based curriculum. Supports the teacher to use equity principles and culturally responsive pedagogy as resources in planning lessons to address issues and meet needs.	Enhances the teacher's abilities to identify inequities, bias, stereotyping, and assumptions about cultures and members of cultures and apply principles of equity and culturally responsive pedagogy in instruction. Supports the teacher in ensuring equitable access to content for all students.

Standard 4: Promotes professional learning for teachers for continuous improvement and student learning

	Emerging/Exploring	Applying	Integrating/Innovating
4.1. Builds on and values prior knowledge, background, interests, experiences and needs of the teacher to improve practice and student learning.	Recognizes the importance of formally and informally assessing prior knowledge of the teachers. Promotes and/or designs and facilitates professional learning that seeks some specific knowledge of the individual teachers prior to session. Focuses teacher awareness of the impact of strategies on student learning.	Promotes and/or designs and facilitates professional learning using a wide range of specific information regarding teachers. Connects new learnings with teachers' current understandings, prior knowledge, experiences, interests, needs, and purposes for learning. Makes connection between strategies and student learning transparent.	Promotes and/or designs and facilitates professional learning that includes deliberate and multiple opportunities for teachers to build on their own knowledge, experiences, interests, and needs to improve their practice and student learning. Engages teachers in active analysis of the relationship between elements of instruction and student learning.
4.2 Promotes, designs, and/or facilitates professional learning that is aligned with standards, school/ district improvement, and program requirements.	Promotes and/or designs and facilitates professional learning that models best practices, is standards-based, and aligned with school/district improvement goals and program requirements.	Promotes and/or designs and facilitates professional learning that is differentiated to meet the needs and interests of teachers. Supports teachers to collaboratively share classroom artifacts and evidence and learn from each other.	Promotes and/or designs and facilitates professional learning that facilitates the leadership of teachers to share their learnings with colleagues, collaboratively problem-solve, and reflect on practice. Advocates for job-embedded professional learning for teachers.
4.3 Creates an effective environment for professional learning.	Arranges the physical environment to enhance the learning experience. Ensures equity of voice, protocols that enhance participation, accountability to one another, resources that move practice forward, and time to reflect.	Uses strategies to promote inquiry and dialogue. Promotes collaboration, risk taking, problem solving, leadership, and reflective application/demonstration of best teaching practices.	Provides a safe environment that encourages participants to take ownership of their own learning by participating in facilitation, suggesting topics for discussion, sharing information, and analyzing artifacts of practice and student work.

	Emerging/Exploring	Applying	Integrating/Innovating
4.4. Differentiates professional learning based on adult learning principles and assessed needs and interests of teachers to advance practice.	Understands adult learning principles and recognizes that participants have different levels of knowledge, experience, interests, and needs. Offers participants a range of choices to ensure differentiated professional learning.	Provides differentiated professional learning that offers options for grouping based on developmental needs, learning styles, interests and individual professional learning goals Adjusts presentation and/or facilitation to respond to and address needs as they arise.	Differentiates professional learning flexibility to address the immediate needs of the participants and in response to understanding of identified needs, levels, and goals of teachers. Integrates thorough knowledge of adult learning principles and research-based practices and strategies in ways that advance teacher effectiveness.
4.5 Uses the teacher's self/co-assessments and inquiries into practice to assist in mentoring and planning for ongoing professional learning to improve practice and advance student learning.	Considers teacher's self/co-assessments and inquiries into practice when planning for mentoring and professional learning. Supports teacher's efforts at implementation of respective strategies.	Uses teacher's self/co-assessments and inquiries to guide mentoring and plan for ongoing professional learning. Collaborates with the teacher to implement strategies from mentoring and professional learning and to reflect on corresponding improvements in practice and student learning.	Facilitates the teacher's routine use of self/co-assessments and inquiries to target mentoring and seek professional learning to address evolving issues of practice and student learning needs. Engages the teacher in ongoing reflection on the impact of strategic implementation of strategies from mentoring and professional learning to improve practice and advance student learning.

Standard 5: Uses assessment data to advance teaching practice and student learning

	Emerging/Exploring	Applying	Integrating/Innovating
5.1 Implements formative assessments that support and guide improvement in practice and student learning.	Follows guidelines for implementing formative assessment system. Engages teacher in using results of analysis and reflection on formative assessment data to guide adjustments in practice and support student learning.	Integrates the use of formative assessment in timely and responsive ways that meet individual needs of teachers and promote student learning.	Facilitates the systematic, ongoing, and flexible use of formative assessment to effectively inform and advance teaching practice and student learning.
5.2 Uses results of formative assessment, including lesson plans, classroom observation, and analysis of student work to promote improvement in practice and student learning.	Develops an understanding of the role of formative assessment related to the teacher's professional development and student learning. Uses formative assessments to focus conversations on student learning and to identify immediate needs for teacher and mentor.	Expands skills, knowledge, and use of formative assessment to promote teacher growth and student learning. Uses results of formative assessment to analyze progress in professional teaching standards, program requirements, meeting the learning needs of students. Based on analysis and reflection, selects next steps to achieve short-term goals for mentoring.	Deepens understanding of potential and limitations of formative assessment processes and tools. Collaborates with mentor colleagues in ongoing analysis and reflection on formative assessment to gauge and calibrate teacher progress toward both short- and long-term goals and to ensure student learning.
5.3 Develops the teacher's abilities to self-assess and co-assess practice based on evidence, to set professional goals, and monitor progress.	Guides the teacher to develop professional and student learning goals and assess progress in both based on collaborative analysis of formative assessment data. Guides teacher to inform self- and co-assessment by regularly referring to evidence.	Builds the teacher's capacity to reflect on evidence of practice and student learning, to identify strengths and areas for growth and design and implement appropriate next steps to support improvement in practice and student learning.	Supports the teacher to develop self- and co-assessment as a habit of professional practice focused on the ongoing improvement of practice and student learning.

	Emerging/Exploring	Applying	Integrating/Innovating
5.4 Teaches and supports identification and development of appropriate assessments to determine student knowledge, skills, and needs.	Has broad knowledge of purposes and characteristics of a wide range of student assessments. Teaches and supports the teacher to understand how the design and implementation of selected assessments impact student demonstration of knowledge, skills, and needs.	Teaches, supports, and collaborates with the teacher to use pre-, formative, and summative assessments to determine student knowledge, skills, and needs. Guides the teacher in the effective use of strategies to engage students in setting personal goals and monitoring progress using data from assessments.	Facilitates the teacher's flexible use of a wide range of student assessments that are well matched to the teacher's purpose and that accurately demonstrates student's knowledge, skills, and needs. Supports the teacher to develop student abilities and motivation to advance learning through engagement with student assessment data.
5.5 Facilitates analysis of student data to plan and differentiate instruction to advance student learning.	Guides the teacher in the analysis of student data using required assessments. Collaborates with the teacher to draw conclusions about student strengths and academic and social needs. Supports the teacher to implement appropriate strategies for differentiation matched to student needs.	Collaborates with the teacher to regularly analyze formal and informal student data. Supports the teacher to expand strategies selected for differentiated instruction to be responsive to diverse cultural backgrounds and individual needs to promote student learning.	Facilitates the teacher's systematic collection and analysis of a broad range of student data and to plan differentiated instruction that results in improvements in practice and advances student learning.

Standard 6: Develops as a professional leader to advance mentoring and the profession

	Emerging/Exploring	Applying	Integrating/Innovating
6.1 Develops goal-based inquiries into practice and continuously pursues purposeful professional learning opportunities.	Develops and implements goal-based inquiries to examine and improve in mentoring practice and application of mentor standards. Participates in professional learning opportunities as part of the program requirements.	Utilizes evidence of mentoring practice to examine and reflect on progress in goal-based inquiries with colleagues and/or program leader. Seeks professional learning opportunities within and outside the program. Participates in field observations with another mentor to enhance mentoring skills.	Maintains ongoing goal-based and standards aligned inquiries into mentoring practice and reflects on a wide range of evidence to inform next steps in mentoring. Provides leadership and support for mentor colleagues and teachers in the pursuit of purposeful professional learning opportunities.
6.2 Works with colleagues, administrators and school communities to advance the teaching profession.	Understands the policies and procedures of the school community. Builds a network of professional contacts and collaborates with colleagues and administrators. Advocates for working conditions that promote teacher success.	Uses knowledge of the school's policies and procedures to foster collaboration, inquiry, and reflection on practice. Communicates, problem solves, and advocates to build effective working relationships between colleagues, administrators, families, and other partners.	Collaborates with others to initiate innovative practices that support the professionalization of teaching. Advocates for equitable professional opportunities and a diverse teaching population.
6.3 Reflects on mentoring practice and program effectiveness to accelerate teacher effectiveness and student learning.	Learns from reflecting on analysis of practice individually and with mentor colleagues. Welcomes constructive feedback. Collaborates with mentor colleagues to analyze teacher feedback to make program improvements.	Elicits feedback from colleagues. Individually and collaboratively reflects on both mentoring practice and program elements to make ongoing improvements and to ensure a high-quality program that accelerates teacher effectiveness and student learning.	Actively seeks constructive feedback. Contributes to the professional growth of self and others to elaborate on and extend professional practice. Leads collective actions to elaborate on and extend professional practice. Uses multiple sources of feedback routinely to analyze impact of mentoring practice and induction program individually and with mentor colleagues to accelerate teacher effectiveness and student learning.

	Emerging/Exploring	Applying	Integrating/Innovating
6.4 Demonstrates and maintains mentor responsibilities, integrity, and ethical conduct.	• Follows and supports teachers to adhere to all state education codes, legal requirements, district and site policies, contractual agreements and ethical responsibilities.* • Demonstrates understanding of the Induction program requirements, mentor responsibilities, and teacher completion requirements. • Fully participates in all required trainings and meetings. • Conducts regular meetings with teachers to engage in a wide range of support and assessment activities including but not limited to goal setting, lesson planning, observation and feedback aligned to standards, student work assessments, and reflection. • Communicates effectively and develops a professional, collegial relationship with participating teacher.		• Maintains a high standard of personal integrity and commitment to teacher and student learning and the profession in all circumstances. • Contributes to fostering a school, district, and professional culture with a high degree of resilience, integrity, and ethical conduct. • Demonstrates dedication to professional learning that focuses on continuous improvement in instruction and student learning. • Contributes to building professional community and holding peers accountable to norms of respectful treatment and communication.

* Ethical Responsibilities for Teachers, CSTP, 6.7

- Takes responsibility for student academic learning outcomes.
- Is aware of own personal values and biases and recognizes ways in which these values and biases affect the teaching and learning of students.
- Adheres to legal and ethical obligations in teaching the full range of learners, including English learners and students with special needs.
- Reports suspected cases of child abuse, and/or neglect as outlined in the California Child Abuse and Neglect Reporting Act.
- Maintains a non-hostile classroom environment and carries out laws and district guidelines for reporting cases of sexual harassment.
- Understands and implements school and district policies and state and federal law in responding to inappropriate or violent student behavior.
- Complies with legal and professional obligations to protect the privacy, health, and safety of students, families, and other school professionals.
- Models appropriate behavior for students, colleagues, and the profession.
- Acts in accordance with ethical considerations for students.
- Maintains professional conduct and integrity in the classroom and school community.

APPENDIX B

INTERSTATE TEACHER ASSESSMENT AND SUPPORT CONSORTIUM

April 18, 2018

Teri Thomsen
10850 W Garden Lakes Pkwy,
Avondale, AZ 85392

Dear Teri,

This letter is in response to your request to use the Council of Chief State School Officers (CCSSO) copyrighted material, in the InTASC Model Core Teaching Standards: A Resource for State Dialogue, for *The Effect of Training and Peer Mentor Shadowing Designed to Increase Mentor Capacity on Teacher Mentor Self-Efficacy*. This letter serves to officially grant use of the aforementioned CCSSO material for print and electronic formats (nonexclusive world rights in English).

We do ask that the following formats be used when referencing the material:

> The Interstate Teacher Assessment and Support Consortium (InTASC) standards were developed by the Council of Chief State School Officers and member states. Copies may be downloaded from the Council's website at http://www.ccsso.org/resource-library/intasc-model-core-teaching-standards.
>
> Council of Chief State School Officers. (2011). Model Core Teaching Standards: A Resource for State Dialogue. Washington, DC: Author.

CCSSO is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. CCSSO seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public.

Thank you for your interest in this CCSSO product. We appreciate your support and interest in our organization. Please do not hesitate to contact us if we can provide any further information.

Thank you,

Jasmine Estes
Communications Associate
Council of Chief State School Officers

Standard #1: Learner Development

The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

PERFORMANCES

1(a) The teacher regularly assesses individual and group performance in order to design and modify instruction to meet learners' needs in each area of development (cognitive, linguistic, social, emotional, and physical) and scaffolds the next level of development.

1(b) The teacher creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/her learning.

1(c) The teacher collaborates with families, communities, colleagues, and other professionals to promote learner growth and development.

ESSENTIAL KNOWLEDGE

1(d) The teacher understands how learning occurs--how learners construct knowledge, acquire skills, and develop disciplined thinking processes--and knows how to use instructional strategies that promote student learning.

1(e) The teacher understands that each learner's cognitive, linguistic, social, emotional, and physical development influences learning and knows how to make instructional decisions that build on learners' strengths and needs.

1(f) The teacher identifies readiness for learning, and understands how development in any one area may affect performance in others.

1(g) The teacher understands the role of language and culture in learning and knows how to modify instruction to make language comprehensible and instruction relevant, accessible, and challenging.

CRITICAL DISPOSITIONS

1(h) The teacher respects learners' differing strengths and needs and is committed to using this information to further each learner's development.

1(i) The teacher is committed to using learners' strengths as a basis for growth, and their misconceptions as opportunities for learning.

1(j) The teacher takes responsibility for promoting learners' growth and development.

1(k) The teacher values the input and contributions of families, colleagues, and other professionals in understanding and supporting each learner's development.

Standard #2: Learning Differences

The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

PERFORMANCES

2(a) The teacher designs, adapts, and delivers instruction to address each student's diverse learning strengths and needs and creates opportunities for students to demonstrate their learning in different ways.

2(b) The teacher makes appropriate and timely provisions (e.g., pacing for individual rates of growth, task demands, communication, assessment, and response modes) for individual students with particular learning differences or needs.

2(c) The teacher designs instruction to build on learners' prior knowledge and experiences, allowing learners to accelerate as they demonstrate their understandings.

2(d) The teacher brings multiple perspectives to the discussion of content, including attention to learners' personal, family, and community experiences and cultural norms.

2(e) The teacher incorporates tools of language development into planning and instruction, including strategies for making content accessible to English language learners and for evaluating and supporting their development of English proficiency.

2(f) The teacher accesses resources, supports, and specialized assistance and services to meet particular learning differences or needs.

ESSENTIAL KNOWLEDGE

2(g) The teacher understands and identifies differences in approaches to learning and performance and knows how to design instruction that uses each learner's strengths to promote growth.

2(h) The teacher understands students with exceptional needs, including those associated with disabilities and giftedness, and knows how to use strategies and resources to address these needs.

2(i) The teacher knows about second language acquisition processes and knows how to incorporate instructional strategies and resources to support language acquisition.

2(j) The teacher understands that learners bring assets for learning based on their individual experiences, abilities, talents, prior learning, and peer and social group interactions, as well as language, culture, family, and community values.

2(k) The teacher knows how to access information about the values of diverse cultures and communities and how to incorporate learners' experiences, cultures, and community resources into instruction.

CRITICAL DISPOSITIONS

2(l) The teacher believes that all learners can achieve at high levels and persists in helping each learner reach his/her full potential.

2(m) The teacher respects learners as individuals with differing personal and family backgrounds and various skills, abilities, perspectives, talents, and interests.

2(n) The teacher makes learners feel valued and helps them learn to value each other.

2(o) The teacher values diverse languages and dialects and seeks to integrate them into his/her instructional practice to engage students in learning.

Standard #3: Learning Environments

The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self motivation.

PERFORMANCES

3(a) The teacher collaborates with learners, families, and colleagues to build a safe, positive learning climate of openness, mutual respect, support, and inquiry.

3(b) The teacher develops learning experiences that engage learners in collaborative and self-directed learning and that extend learner interaction with ideas and people locally and globally.

3(c) The teacher collaborates with learners and colleagues to develop shared values and expectations for respectful interactions, rigorous academic discussions, and individual and group responsibility for quality work.

3(d) The teacher manages the learning environment to actively and equitably engage learners by organizing, allocating, and coordinating the resources of time, space, and learners' attention.

3(e) The teacher uses a variety of methods to engage learners in evaluating the learning environment and collaborates with learners to make appropriate adjustments.

3(f) The teacher communicates verbally and nonverbally in ways that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives learners bring to the learning environment.

3(g) The teacher promotes responsible learner use of interactive technologies to extend the possibilities for learning locally and globally.

3(h) The teacher intentionally builds learner capacity to collaborate in face-to-face and virtual environments through applying effective interpersonal communication skills.

ESSENTIAL KNOWLEDGE

3(i) The teacher understands the relationship between motivation and engagement and knows how to design learning experiences using strategies that build learner self-direction and ownership of learning.

3(j) The teacher knows how to help learners work productively and cooperatively with each other to achieve learning goals.

3(k) The teacher knows how to collaborate with learners to establish and monitor elements of a safe and productive learning environment including norms, expectations, routines, and organizational structures.

3(l) The teacher understands how learner diversity can affect communication and knows how to communicate effectively in differing environments.

3(m) The teacher knows how to use technologies and how to guide learners to apply them in appropriate, safe, and effective ways.

CRITICAL DISPOSITIONS

3(n) The teacher is committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments.

3(o) The teacher values the role of learners in promoting each other's learning and recognizes the importance of peer relationships in establishing a climate of learning.

3(p) The teacher is committed to supporting learners as they participate in decision-making, engage in exploration and invention, work collaboratively and independently, and engage in purposeful learning.

3(q) The teacher seeks to foster respectful communication among all members of the learning community.

3(r) The teacher is a thoughtful and responsive listener and observer.

Standard #4: Content Knowledge

The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

PERFORMANCES

4(a) The teacher effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards.

4(b) The teacher engages students in learning experiences in the discipline(s) that encourage learners to understand, question, and analyze ideas from diverse perspectives so that they master the content.

4(c) The teacher engages learners in applying methods of inquiry and standards of evidence used in the discipline.

4(d) The teacher stimulates learner reflection on prior content knowledge, links new concepts to familiar concepts, and makes connections to learners' experiences.

4(e) The teacher recognizes learner misconceptions in a discipline that interfere with learning, and creates experiences to build accurate conceptual understanding.

4(f) The teacher evaluates and modifies instructional resources and curriculum materials for their comprehensiveness, accuracy for representing particular concepts in the discipline, and appropriateness for his/her learners.

4(g) The teacher uses supplementary resources and technologies effectively to ensure accessibility and relevance for all learners.

4(h) The teacher creates opportunities for students to learn, practice, and master academic language in their content.

4(i) The teacher accesses school and/or district-based resources to evaluate the learner's content knowledge in their primary language.

ESSENTIAL KNOWLEDGE

4(j) The teacher understands major concepts, assumptions, debates, processes of inquiry, and ways of knowing that are central to the discipline(s) s/he teaches.

4(k) The teacher understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding.

4(l) The teacher knows and uses the academic language of the discipline and knows how to make it accessible to learners.

4(m) The teacher knows how to integrate culturally relevant content to build on learners' background knowledge.

4(n) The teacher has a deep knowledge of student content standards and learning progressions in the discipline(s) s/he teaches.

CRITICAL DISPOSITIONS

4(o) The teacher realizes that content knowledge is not a fixed body of facts but is complex, culturally situated, and ever evolving. S/he keeps abreast of new ideas and understandings in the field.

4(p) The teacher appreciates multiple perspectives within the discipline and facilitates learners' critical analysis of these perspectives.

4(q) The teacher recognizes the potential of bias in his/her representation of the discipline and seeks to appropriately address problems of bias.

4(r) The teacher is committed to work toward each learner's mastery of disciplinary content and skills.

Standard #5: Application of Content

The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

PERFORMANCES

5(a) The teacher develops and implements projects that guide learners in analyzing the complexities of an issue or question using perspectives from varied disciplines and cross-disciplinary skills (e.g., a water quality study that draws upon biology and chemistry to look at factual information and social studies to examine policy implications).

5(b) The teacher engages learners in applying content knowledge to real world problems through the lens of interdisciplinary themes (e.g., financial literacy, environmental literacy).

5(c) The teacher facilitates learners' use of current tools and resources to maximize content learning in varied contexts.

5(d) The teacher engages learners in questioning and challenging assumptions and approaches in order to foster innovation and problem solving in local and global contexts.

5(e) The teacher develops learners' communication skills in disciplinary and interdisciplinary contexts by creating meaningful opportunities to employ a variety of forms of communication that address varied audiences and purposes.

5(f) The teacher engages learners in generating and evaluating new ideas and novel approaches, seeking inventive solutions to problems, and developing original work.

5(g) The teacher facilitates learners' ability to develop diverse social and cultural perspectives that expand their understanding of local and global issues and create novel approaches to solving problems.

5(h) The teacher develops and implements supports for learner literacy development across content areas.

ESSENTIAL KNOWLEDGE

5(i) The teacher understands the ways of knowing in his/her discipline, how it relates to other disciplinary approaches to inquiry, and the strengths and limitations of each approach in addressing problems, issues, and concerns.

5(j) The teacher understands how current interdisciplinary themes (e.g., civic literacy, health literacy, global awareness) connect to the core subjects and knows how to weave those themes into meaningful learning experiences.

5(k) The teacher understands the demands of accessing and managing information as well as how to evaluate issues of ethics and quality related to information and its use.

5(l) The teacher understands how to use digital and interactive technologies for efficiently and effectively achieving specific learning goals.

5(m) The teacher understands critical thinking processes and knows how to help learners develop high level questioning skills to promote their independent learning.

5(n) The teacher understands communication modes and skills as vehicles for learning (e.g., information gathering and processing) across disciplines as well as vehicles for expressing learning.

5(o) The teacher understands creative thinking processes and how to engage learners in producing original work.

5(p) The teacher knows where and how to access resources to build global awareness and understanding, and how to integrate them into the curriculum.

CRITICAL DISPOSITIONS

5(q) The teacher is constantly exploring how to use disciplinary knowledge as a lens to address local and global issues.

5(r) The teacher values knowledge outside his/her own content area and how such knowledge enhances student learning.

5(s) The teacher values flexible learning environments that encourage learner exploration, discovery, and expression across content areas.

Standard #6: Assessment

The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

PERFORMANCES

6(a) The teacher balances the use of formative and summative assessment as appropriate to support, verify, and document learning.

6(b) The teacher designs assessments that match learning objectives with assessment methods and minimizes sources of bias that can distort assessment results.

6(c) The teacher works independently and collaboratively to examine test and other performance data to understand each learner's progress and to guide planning.

6(d) The teacher engages learners in understanding and identifying quality work and provides them with effective descriptive feedback to guide their progress toward that work.

6(e) The teacher engages learners in multiple ways of demonstrating knowledge and skill as part of the assessment process.

6(f) The teacher models and structures processes that guide learners in examining their own thinking and learning as well as the performance of others.

6(g) The teacher effectively uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences.

6(h) The teacher prepares all learners for the demands of particular assessment formats and makes appropriate accommodations in assessments or testing conditions, especially for learners with disabilities and language learning needs.

6(i) The teacher continually seeks appropriate ways to employ technology to support assessment practice both to engage learners more fully and to assess and address learner needs.

ESSENTIAL KNOWLEDGE

6(j) The teacher understands the differences between formative and summative applications of assessment and knows how and when to use each.

6(k) The teacher understands the range of types and multiple purposes of assessment and how to design, adapt, or select appropriate assessments to address specific learning goals and individual differences, and to minimize sources of bias.

6(l) The teacher knows how to analyze assessment data to understand patterns and gaps in learning, to guide planning and instruction, and to provide meaningful feedback to all learners.

6(m) The teacher knows when and how to engage learners in analyzing their own assessment results and in helping to set goals for their own learning.

6(n) The teacher understands the positive impact of effective descriptive feedback for learners and knows a variety of strategies for communicating this feedback.

6(o) The teacher knows when and how to evaluate and report learner progress against standards.

6(p) The teacher understands how to prepare learners for assessments and how to make accommodations in assessments and testing conditions, especially for learners with disabilities and language learning needs.

CRITICAL DISPOSITIONS

6(q) The teacher is committed to engaging learners actively in assessment processes and to developing each learner's capacity to review and communicate about their own progress and learning.

6(r) The teacher takes responsibility for aligning instruction and assessment with learning goals.

6(s) The teacher is committed to providing timely and effective descriptive feedback to learners on their progress.

6(t) The teacher is committed to using multiple types of assessment processes to support, verify, and document learning.

6(u) The teacher is committed to making accommodations in assessments and testing conditions, especially for learners with disabilities and language learning needs.

6(v) The teacher is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth.

Standard #7: Planning for Instruction

The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

PERFORMANCES

7(a) The teacher individually and collaboratively selects and creates learning experiences that are appropriate for curriculum goals and content standards, and are relevant to learners

7(b) The teacher plans how to achieve each student's learning goals, choosing appropriate strategies and accommodations, resources, and materials to differentiate instruction for individuals and groups of learners.

7(c) The teacher develops appropriate sequencing of learning experiences and provides multiple ways to demonstrate knowledge and skill.

7(d) The teacher plans for instruction based on formative and summative assessment data, prior learner knowledge, and learner interest.

7(e) The teacher plans collaboratively with professionals who have specialized expertise (e.g., special educators, related service providers, language learning specialists, librarians, media specialists) to design and jointly deliver as appropriate effective learning experiences to meet unique learning needs.

7(f) The teacher evaluates plans in relation to short- and long-range goals and systematically adjusts plans to meet each student's learning needs and enhance learning.

ESSENTIAL KNOWLEDGE

7(g) The teacher understands content and content standards and how these are organized in the curriculum.

7(h) The teacher understands how integrating cross-disciplinary skills in instruction engages learners purposefully in applying content knowledge.

7(i) The teacher understands learning theory, human development, cultural diversity, and individual differences and how these impact ongoing planning.

7(j) The teacher understands the strengths and needs of individual learners and how to plan instruction that is responsive to these strengths and needs.

7(k) The teacher knows a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan instruction that meets diverse learning needs.

7(l) The teacher knows when and how to adjust plans based on assessment information and learner responses.

7(m) The teacher knows when and how to access resources and collaborate with others to support student learning (e.g., special educators, related service providers, language learner specialists, librarians, media specialists, community organizations).

CRITICAL DISPOSITIONS

7(n) The teacher respects learners' diverse strengths and needs and is committed to using this information to plan effective instruction.

7(o) The teacher values planning as a collegial activity that takes into consideration the input of learners, colleagues, families, and the larger community.

7(p) The teacher takes professional responsibility to use short- and long-term planning as a means of assuring student learning.

7(q) The teacher believes that plans must always be open to adjustment and revision based on learner needs and changing circumstances.

Standard #8: Instructional Strategies

The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

PERFORMANCES

8(a) The teacher uses appropriate strategies and resources to adapt instruction to the needs of individuals and groups of learners.

8(b) The teacher continuously monitors student learning, engages learners in assessing their progress, and adjusts instruction in response to student learning needs.

8(c) The teacher collaborates with learners to design and implement relevant learning experiences, identify their strengths, and access family and community resources to develop their areas of interest.

8(d) The teacher varies his/her role in the instructional process (e.g., instructor, facilitator, coach, audience) in relation to the content and purposes of instruction and the needs of learners.

8(e) The teacher provides multiple models and representations of concepts and skills with opportunities for learners to demonstrate their knowledge through a variety of products and performances.

8(f) The teacher engages all learners in developing higher order questioning skills and metacognitive processes.

8(g) The teacher engages learners in using a range of learning skills and technology tools to access, interpret, evaluate, and apply information.

8(h) The teacher uses a variety of instructional strategies to support and expand learners' communication through speaking, listening, reading, writing, and other modes.

8(i) The teacher asks questions to stimulate discussion that serves different purposes (e.g., probing for learner understanding, helping learners articulate their ideas and thinking processes, stimulating curiosity, and helping learners to question).

ESSENTIAL KNOWLEDGE

8(j) The teacher understands the cognitive processes associated with various kinds of learning (e.g., critical and creative thinking, problem framing and problem solving, invention, memorization and recall) and how these processes can be stimulated.

8(k) The teacher knows how to apply a range of developmentally, culturally, and linguistically appropriate instructional strategies to achieve learning goals.

8(l) The teacher knows when and how to use appropriate strategies to differentiate instruction and engage all learners in complex thinking and meaningful tasks.

8(m) The teacher understands how multiple forms of communication (oral, written, nonverbal, digital, visual) convey ideas, foster self expression, and build relationships.

8(n) The teacher knows how to use a wide variety of resources, including human and technological, to engage students in learning.

8(o) The teacher understands how content and skill development can be supported by media and technology and knows how to evaluate these resources for quality, accuracy, and effectiveness.

CRITICAL DISPOSITIONS

8(p) The teacher is committed to deepening awareness and understanding the strengths and needs of diverse learners when planning and adjusting instruction.

8(q) The teacher values the variety of ways people communicate and encourages learners to develop and use multiple forms of communication.

8(r) The teacher is committed to exploring how the use of new and emerging technologies can support and promote student learning.

8(s) The teacher values flexibility and reciprocity in the teaching process as necessary for adapting instruction to learner responses, ideas, and needs.

Standard #9: Professional Learning and Ethical Practice

The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

PERFORMANCES

9(a) The teacher engages in ongoing learning opportunities to develop knowledge and skills in order to provide all learners with engaging curriculum and learning experiences based on local and state standards.

9(b) The teacher engages in meaningful and appropriate professional learning experiences aligned with his/her own needs and the needs of the learners, school, and system.

9(c) Independently and in collaboration with colleagues, the teacher uses a variety of data (e.g., systematic observation, information about learners, research) to evaluate the outcomes of teaching and learning and to adapt planning and practice.

9(d) The teacher actively seeks professional, community, and technological resources, within and outside the school, as supports for analysis, reflection, and problem-solving.

9(e) The teacher reflects on his/her personal biases and accesses resources to deepen his/her own understanding of cultural, ethnic, gender, and learning differences to build stronger relationships and create more relevant learning experiences.

9(f) The teacher advocates, models, and teaches safe, legal, and ethical use of information and technology including appropriate documentation of sources and respect for others in the use of social media.

ESSENTIAL KNOWLEDGE

9(g) The teacher understands and knows how to use a variety of self-assessment and problem-solving strategies to analyze and reflect on his/her practice and to plan for adaptations/adjustments.

9(h) The teacher knows how to use learner data to analyze practice and differentiate instruction accordingly.

9(i) The teacher understands how personal identity, worldview, and prior experience affect perceptions and expectations, and recognizes how they may bias behaviors and interactions with others.

9(j) The teacher understands laws related to learners' rights and teacher responsibilities (e.g., for educational equity, appropriate education for learners with disabilities, confidentiality, privacy, appropriate treatment of learners, reporting in situations related to possible child abuse).

9(k) The teacher knows how to build and implement a plan for professional growth directly aligned with his/her needs as a growing professional using feedback from teacher evaluations and observations, data on learner performance, and school- and system-wide priorities.

CRITICAL DISPOSITIONS

9(l) The teacher takes responsibility for student learning and uses ongoing analysis and reflection to improve planning and practice.

9(m) The teacher is committed to deepening understanding of his/her own frames of reference (e.g., culture, gender, language, abilities, ways of knowing), the potential biases in these frames, and their impact on expectations for and relationships with learners and their families.

9(n) The teacher sees him/herself as a learner, continuously seeking opportunities to draw upon current education policy and research as sources of analysis and reflection to improve practice.

9(o) The teacher understands the expectations of the profession including codes of ethics, professional standards of practice, and relevant law and policy.

Standard #10: Leadership and Collaboration

The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

PERFORMANCES

10(a) The teacher takes an active role on the instructional team, giving and receiving feedback on practice, examining learner work, analyzing data from multiple sources, and sharing responsibility for decision making and accountability for each student's learning.

10(b) The teacher works with other school professionals to plan and jointly facilitate learning on how to meet diverse needs of learners.

10(c) The teacher engages collaboratively in the school-wide effort to build a shared vision and supportive culture, identify common goals, and monitor and evaluate progress toward those goals.

10(d) The teacher works collaboratively with learners and their families to establish mutual expectations and ongoing communication to support learner development and achievement.

10(e) Working with school colleagues, the teacher builds ongoing connections with community resources to enhance student learning and well being.

10(f) The teacher engages in professional learning, contributes to the knowledge and skill of others, and works collaboratively to advance professional practice.

10(g) The teacher uses technological tools and a variety of communication strategies to build local and global learning communities that engage learners, families, and colleagues.

10(h) The teacher uses and generates meaningful research on education issues and policies.

10(i) The teacher seeks appropriate opportunities to model effective practice for colleagues, to lead professional learning activities, and to serve in other leadership roles.

10(j) The teacher advocates to meet the needs of learners, to strengthen the learning environment, and to enact system change.

10(k) The teacher takes on leadership roles at the school, district, state, and/or national level and advocates for learners, the school, the community, and the profession.

ESSENTIAL KNOWLEDGE

10(l) The teacher understands schools as organizations within a historical, cultural, political, and social context and knows how to work with others across the system to support learners.

10(m) The teacher understands that alignment of family, school, and community spheres of influence enhances student learning and that discontinuity in these spheres of influence interferes with learning.

10(n) The teacher knows how to work with other adults and has developed skills in collaborative interaction appropriate for both face-to-face and virtual contexts.

10(o) The teacher knows how to contribute to a common culture that supports high expectations for student learning.

CRITICAL DISPOSITIONS

10(p) The teacher actively shares responsibility for shaping and supporting the mission of his/her school as one of advocacy for learners and accountability for their success.

10(q) The teacher respects families' beliefs, norms, and expectations and seeks to work collaboratively with learners and families in setting and meeting challenging goals.

10(r) The teacher takes initiative to grow and develop with colleagues through interactions that enhance practice and support student learning.

10(s) The teacher takes responsibility for contributing to and advancing the profession.

10(t) The teacher embraces the challenge of continuous improvement and change.

APPENDIX C

TEACHER MENTOR SELF-EFFICACY SURVEY

Teacher Mentor Self-Efficacy Survey

Research Consent Letter Agreement

* Required

1. Email address *

2. By checking the YES box you indicate you have read the Recruitment and Consent Letters attached by email and agree to participate in the research study. * Check all that apply.

   ☐ YES

3. In order to ensure accurate tracking of collected data, please provide a unique identifier consisting of the following combinations: FIRST INITIAL of FIRST NAME; FIRST 3 LETTERS of your LAST NAME; LAST 2 digits of your birth year. For example, if my name is Cindy Crawford and I was born in 1965 my unique identifier would be "CCra65." This identifier will be used with each subsequent completion of the survey. Record your identifier in the box below. *

Survey

The following six items in section two come from Arthur Bandura's (1970) unpublished teacher self-efficacy instrument.

Please respond to each statement using the following scale:
1 = Not at all
2 = Maybe
3 = Probably
4 = More than likely
5 = Definitely

4. I believe I have open lines of communication with the novice teachers that I mentor.
   1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

5 I believe I provide appropriate feedback when conferencing with novice teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

6.

I believe I am very effective in pointing out a novice teacher's weaknesses.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

7.

I believe I am a very good advocate for novice teachers when dealing with administrators, other teachers, and district personnel.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

8.

I am able to help teachers implement a plan when they are having difficulty implementing a management plan.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

9.

The professional inadequacies of a novice teacher can be overcome by the mentoring I provide.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all ◯ ◯ ◯ ◯ ◯ Definitely

Expanded Responses

This section is optional.

10 This section is provided to allow you the opportunity to expand in greater detail any of your responses from the previous section. It is not required to move on in the survey; however, it is appreciated if you do take the time to do so.

Survey

Please respond to each statement using the following scale:
1 = Not at all
2 = Maybe
3 = Probably
4 = More than likely
5 = Definitely

11. As a teacher mentor, I am confident I can...maintain a positive relationship with beginning teachers when tensions arise.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

12. As a teacher mentor, I am confident I can...successfully coach all relevant subject content to even the most challenging beginning teacher.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

13. As a teacher mentor, I am confident I can…exert a positive influence on the professional development of my beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

14 As a teacher mentor, I am confident I can…reach even the most difficult beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

15. As a teacher mentor, I am confident I can…help teachers through the most difficult situations.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

16. As a teacher mentor, I am confident I can…motivate teachers who show low interest in changing their practice.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

17. As a teacher mentor, I am confident I can…continue to become more and more capable of helping to address my beginning teachers' needs.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

18. As a teacher mentor, I am confident I can…maintain my composure and continue to mentor beginning teachers even in the most trying circumstances.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

19 As a teacher mentor, I am confident I can…be responsive to my beginning teachers' needs even if I am having a bad day.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

20.

As a teacher mentor, I am confident I can…develop creative ways to coach my beginning teachers within system constraints.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

21.

As a teacher mentor, I am confident I can…get teachers to work together.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

22.

As a teacher mentor, I am confident I can…get teachers to become involved in school activities.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

23.

As a teacher mentor, I am confident I can…reduce teacher turnover through the use of effective mentoring techniques.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all ◯ ◯ ◯ ◯ ◯ Definitely

24 As a teacher mentor, I am confident I can…adequately respond to difficult questions from my beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

25.

As a teacher mentor, I am confident I can…employ the roles, language, and stances of effective instructional mentoring.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

26.

As a teacher mentor, I am confident I can…build collaborative trusting relationships with and among beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

27.

As a teacher mentor, I am confident I can...use mentoring tools to assess and advance teaching practice.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

28.

As a teacher mentor, I am confident I can…use standards and criteria to anchor assessments about teaching and learning.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

29 As a teacher mentor, I am confident I can…motivate my teachers to implement innovative instructional strategies.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

30. As a teacher mentor, I am confident I can…influence the decisions that are made by my beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

31. As a teacher mentor, I am confident I can…help teachers with their teaching skills.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

32. As a teacher mentor, I am confident I can…use protocols and tools that support an effective observation cycle.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

33. As a teacher mentor, I am confident I can…communicate with a site administrator for beginning teacher assessment and support.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

34 As a teacher mentor, I am confident I can… collaborate with a site administrator for beginning teacher assessment and support.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

35. As a teacher mentor, I am confident I can…coordinate with a site administrator for beginning teacher assessment and support.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

36. As a teacher mentor, I am confident I can…get beginning teachers to establish routines and procedures to keep their classrooms running smoothly.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

37. As a teacher mentor, I am confident I can…use protocols for analyzing student work with beginning teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

38. As a teacher mentor, I am confident I can…incorporate relevant aspects of brain research to inform and transform instructional mentoring and teaching practices for teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all ◯ ◯ ◯ ◯ ◯ Definitely

39 As a teacher mentor, I am confident I can…get teachers to recognize when they do well professionally.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

40.

As a teacher mentor, I am confident I can…help beginning teachers learn to problem solve.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

41.

As a teacher mentor, I am confident I can…improve the understanding of a beginning teacher who is failing.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

42.

As a teacher mentor, I am confident I can…use mentoring tools and protocols to support teachers as they plan assessment-driven differentiated instruction aligned to content standards.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all	◯	◯	◯	◯	◯	Definitely

43.

As a teacher mentor, I am confident I can…apply mentoring strategies for providing meaningful feedback to teachers.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

1 2 3 4 5

Not at all Definitely

44 As a teacher mentor, I am confident I can…get teachers to reflect upon their professional growth.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

45. As a teacher mentor, I am confident I can…get teachers to establish their next steps for their professional growth.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

46. As a teacher mentor, I am confident I can…reflect upon my own professional growth.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

47. As a teacher mentor, I am confident I can…establish the next steps for my professional growth.

1 = Not at all; 2 = Maybe; 3 = Probably; 4 = More than likely; 5 = Definitely Mark only one oval.

	1	2	3	4	5	
Not at all						Definitely

Expanded Responses

This section is optional.

48. This section is provided to allow you the opportunity to expand in greater detail any of your responses from the previous section. It is not required to move on; however, it is appreciated if you do take the time to do so.

Participant Demographics

Please answer each question as accurately as possible.

49. What is your gender?
Mark only one oval.

- ⬭ Male
- ⬭ Female

50. What is your race or ethnicity?
Mark only one oval.

- ⬭ American Indian or Native American
- ⬭ Asian/Pacific Islander
- ⬭ Black or African American
- ⬭ Hispanic American
- ⬭ White or Caucasian
- ⬭ Other: _____

51. What is your highest level of education?
Mark only one oval.

- ⬭ Undergraduate Degree
- ⬭ Master's Degree
- ⬭ Doctoral Degree

52. How many years of teaching experience do you have?
Mark only one oval.

- ⬭ 1-5 years
- ⬭ 6-10 years
- ⬭ 11-15 years
- ⬭ 16-20 years
- ⬭ 21+ years

53. What is your official job title?

54. Are you a full release teacher mentor? (Full release teacher mentors do not have any classroom instructional or student supervision responsibilities. They are solely dedicated to mentoring of teachers.) Mark only one oval.

- Yes
- No

55. If you are not a full release mentor, please select the choice that best describes your mentoring situation. If your situation is not listed, describe it under the "Other" option. Mark only one oval.

- I teach a full load (or all day) and am expected to mentor teachers in addition to my teaching responsibilities.
- I teach more than half the day but not the entire instructional day. Time not spent instructing students is expected to be spent mentoring teachers.
- I teach a half day and mentor a half day.
- Other: _____

56. How many teachers are you responsible for mentoring? Mark only one oval.

- 1 – 4
- 5 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 or more

57. Do you receive a stipend or additional compensation for mentoring teachers? Mark only one oval.

- Yes
- No

58. How many years have you been paid as a teacher mentor? Mark only one oval.

- ⬭ None
- ⬭ Less than one year.
- ⬭ One year.
- ⬭ Two years.
- ⬭ Three years.
- ⬭ Other: _____

59. What grade level(s) do you mentor? Select all that apply.
Check all that apply.

- ⬭ Kinder
- ⬭ First
- ⬭ Second
- ⬭ Third
- ⬭ Fourth
- ⬭ Fifth
- ⬭ Sixth
- ⬭ Seventh
- ⬭ Ninth
- ⬭ Tenth
- ⬭ Eleventh
- ⬭ Twelfth

60. What content areas do you mentor? Check all that apply. Use the other option to add any additional content area(s) not identified. Check all that apply.

- ⬭ Elementary reading
- ⬭ Elementary math
- ⬭ Elementary science
- ⬭ Elementary social studies
- ⬭ Elementary specials, such as, art, band, choir, PE, computers
- ⬭ Junior high or high school CTE (Career and Technical Education)
- ⬭ Junior high or high school ELA (English Language Arts)
- ⬭ Junior high or high school reading
- ⬭ Junior high or high school math
- ⬭ Junior high or high school PVA (Performing Visual Arts)
- ⬭ Junior high or high school social studies

- Junior high or high school science
- Other:

61. In which type of school district do you work?
Mark only one oval.

- Elementary only school district
- High school only district
- Unified school district (elementary and high school combined in one district)
- Elementary charter school
- High school charter school
- Other:

62. Have you had any previous mentor training prior to the fall of 2017? If yes, please select "Other" and explain in writing. Mark only one oval.

- No
- Other: _____

Participation in mentor shadowing

Mentor shadowing is an opportunity for peer mentors to shadow each other during the course of their duties. If you can answer "Yes" to the first question, continue with the remaining questions. If your answer is "No", select "No" and then skip the other questions in this section moving to the final section of the survey.

63. Have you ever shadowed a peer mentor as part of mentor training? If you can answer yes to this question, please complete the following prompts. Mark only one oval.

- Yes
- No

64. How many times have you shadowed a peer mentor in one school year?
Mark only one oval.

- Zero
- Once
- Twice
- Three times
- Four times

Five times or more

65. How long did you each shadow visit last?
Mark only one oval.

- 30 minutes or less
- 30 minutes to one hour
- One hour but less than two hours
- Two hours to a half day
- More than a half-day but less than one full day
- One full day

66. What was the focus of your mentor shadowing experiences? Please describe all

67. In general, did you find the mentor shadowing experience(s) valuable to your practice as a mentor?
Mark only one oval.

- Yes
- No

Please volunteer to participate in research interviews!

Random volunteers will be selected to participate in follow-up interviews. (Reminder, participants who complete all three surveys and participate in the follow-up interview will receive a $10 gift card.) If you wish to participate, please include the following information so I may reach you. As a reminder, should you decide to volunteer, your identity will remain confidential in any work that is disseminated from this research project. Thank you!

68. Please provide an email address where you can be reached now and during the school year.

69. Please provide a phone number in which you can be reached now and during the school year.

APPENDIX D

TABLE 16 SURVEY PROMPTS

Table 16

Origination of PLS-MA1 Outcomes and Sun Valley's Retention Goal to Survey Prompts

Origination	Outcomes or Goals	Prompt Number on TMSES	Survey Prompts
Part Two	Extend and expand upon the use of instructional mentoring languages	25	As a teacher mentor, I am confident I can employee the roles, language and stances of effective instructional mentoring.
Part One	The Importance of Building a Trusting Relationship as a Mentor	26	As a teacher mentor, I am confident I can build collaborative trusting relationships with and among beginning teachers.
Part Two	Use protocols and tools that support an effective classroom observation cycle	27	As a teacher mentor, I am confident I can use mentoring tools to assess and advance teaching practice.
Part Three	Use protocols for analyzing student work with beginning teachers	28	As a teacher mentor, I am confident I can use standards and criteria to anchor assessments about teaching and learning.
Part One	Set an Individual Goal Utilizing the Mentor Continuum Standards and the PLP	30	As a teacher mentor, I am confident I can influence the decisions that are made by my beginning teachers.
Part One	Set an Individual Goal Utilizing the Mentor Continuum Standards and the PLP	31	As a teacher mentor, I am confident I can help teachers with their teaching skills.
Part Two	Use protocols and tools that support an effective classroom observation cycle	32	As a teacher mentor, I am confident I can use protocols and tools that support an effective observation cycle.
Part Two	Communicate, collaborate, and coordinate with a site administrator for beginning teacher assessment and support	33	As a teacher mentor, I am confident I can communicate with a site administrator for beginning teacher assessment and support.
		34	As a teacher mentor, I am confident I can collaborate with a site administrator for beginning teacher assessment and support.

		35	As a teacher mentor, I am confident I can coordinate with a site administrator for beginning teacher assessment and support.
Part Two	Extend and expand upon the use of instructional mentoring languages	37	As a teacher mentor, I am confident I can use protocols for analyzing student work with beginning teachers.
Part Three	Incorporate relevant aspects of brain research to inform and transform instructional mentoring and teacher practice	38	As a teacher mentor, I am confident I can incorporate relevant aspects of brain research to inform and transform instructional mentoring and teaching practices for teachers.
Part Four	Use tools and protocols to support teachers as they plan assessment-driven differentiation instruction aligned to content standards	42	As a teacher mentor, I am confident I can use mentoring tools and protocols to support teachers as they plan assessment-driven differentiated instruction aligned to content standards.
Part Four	Apply strategies for providing meaningful feedback	43	As a teacher mentor, I am confident I can apply mentoring strategies for providing meaningful feedback to teachers.
Part Four	Reflect upon professional growth and set next steps	44	As a teacher mentor, I am confident I can get teachers to reflect upon their professional growth.
Part Four	Reflect upon professional growth and set next steps	45	As a teacher mentor, I am confident I can get teacher to establish their next steps for their professional growth.
Part Four	Reflect upon professional growth and set next steps	46	As a teacher mentor, I am confident I can reflect upon my own professional growth.
Part Four	Reflect upon professional growth and set next steps	47	As a teacher mentor, I am confident I can establish the next steps for my professional growth.
Sun Valley's District Goal	District goal to increase teacher retention	41	As a teacher mentor, I am confident I can improve the understanding of a teacher who is failing.

APPENDIX E

TABLE 17 2017-2108 PLS-MA1 PARTICIPANT DEMOGRAPHICS

Table 17

2017-2018 PLS-MA1 Participant Demographics

Gender		
	Female	83.3%
	Male	16.7%
Race		
	Caucasians	76.7%
	Hispanic American	20%
	African American	3.3%
Education		
	Undergraduate Degree	16.7%
	Master's Degree	80%
	Doctorate Degree	3.3%
School Districts Represented		
	Unified Districts	43.3%
	Elementary School Districts	37.9%
	High School Districts	13.8%
Teaching Experience		
	1-5 Years	0%
	6-10 Years	23.3%
	11-15 Years	43.3%
	16-20 Years	20%
	21 Years or More	13.3%
Job Titles Identified		
	Teacher Mentor	40%
	Teacher	30%
	Dual Role - Teacher and Teacher Mentor	13.3%
	Induction and Retention Specialist	10%
	Academic Coach	3.3%
	Instructional Coach	3.3%
	Reading Specialist	3%
Full Release vs Non-Full Release Mentor		
	Full Release Mentor	53.3%
	Non-Full Release Mentor	46.7%
Non-Full Release Mentor Job Responsibilities		
	Full Time Instruction with Mentoring outside of instructional day	85.7%

½ Day Instruction and Mentoring ½ Day	14.3%
Compensated for Mentoring	
Receive Stipend	51.7%
No Stipend	48.3%
Teacher Mentor Experience	
First Year Teacher Mentor	69.9%
One Year	6.7%
Two Years	6.7%
Three Years	6.7%
Five Years	6.7%
Nine Years	3.3%
Teacher Mentor Training	
No Previous Training	63.3%
Training Outsourced	30%
Training Provided by District	3.3%

APPENDIX F

INTERVIEW QUESTIONS

1. Tell me about the challenges you've had in transitioning into the role of mentor?
2. What type of job specific training have you received since you've been in the position of mentor?
3. What do you need to be an effective mentor?
4. Describe a time when you felt successful in your role as mentor? How did your actions contribute to that success?
5. Tell me about a time you felt inadequate in your role as mentor? What factors contributed to that feeling of inadequacy?

184

APPENDIX G

EXPERIENTIAL LEARNING THEORY

The Experiential Learning Theory (ELT) devised by Kolb was also used to inform the study. ELT finds its basis in the works of Kurt Lewin, John Dewey, Jean Piaget, Carl Jung, Paulo Freire, and Carl Rogers, in addition to, others who have done extensive work around learning and development (Kolb, 2005). Dewey, Lewin, and Piaget, however, had the greatest impact on Kolb's theory. Kolb (1984) agreed with Lewin's and Dewey's belief that learning is a cyclical experience leading him to see ELT as also a continuous process. Additionally, he brought over Dewey's emphasis of the idea that learning was a process of development. Piaget did not necessarily believe that learning was cyclical; rather, he felt it was more of a push and pull between continuums that included stages of learning development progressed through from infancy to late teens with the final stage continuing throughout the rest of our lives. Kolb (1984) felt there were aspects of his learning theory related to this continuum, as well. Kolb (2005) eventually defined experiential learning theory as, "…the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38) further describing it as resulting "…from the combination of grasping and transforming experience" (Kolb, 1984, p. 41).

Kolb (2005) synthesized the ideas of these researchers along with his own ideas into six premises he termed "propositions." The first one is based upon the idea that learning is a process rather than an end. Learning does not end with knowing. Second, is that learning is simply taking what is already known and reformulating it into new knowledge or learning. There is no *new* knowledge, only (re)discovery of existing knowledge. Next, because there is conflicting information around us, learning consists of compromising and reorganizing this information into new learning. It is the making of what has been learned and fitting into the context of our understanding of this knowledge.

The fourth proposition stipulates that learning takes place holistically through adjustment to life around us. It is making our new understandings fit into our world. These adjustments involve the fifth proposition, which is the interaction of elements involving the learner and their world. Finally, the last proposition is that learning is based upon each person's own schema and background knowledge making it unique and individualistic for each person. (Kolb, 2005) These prepositions represent Kolb's cycle of experiential learning as represented in Figure 2 (University of Texas at Austin, 2017).

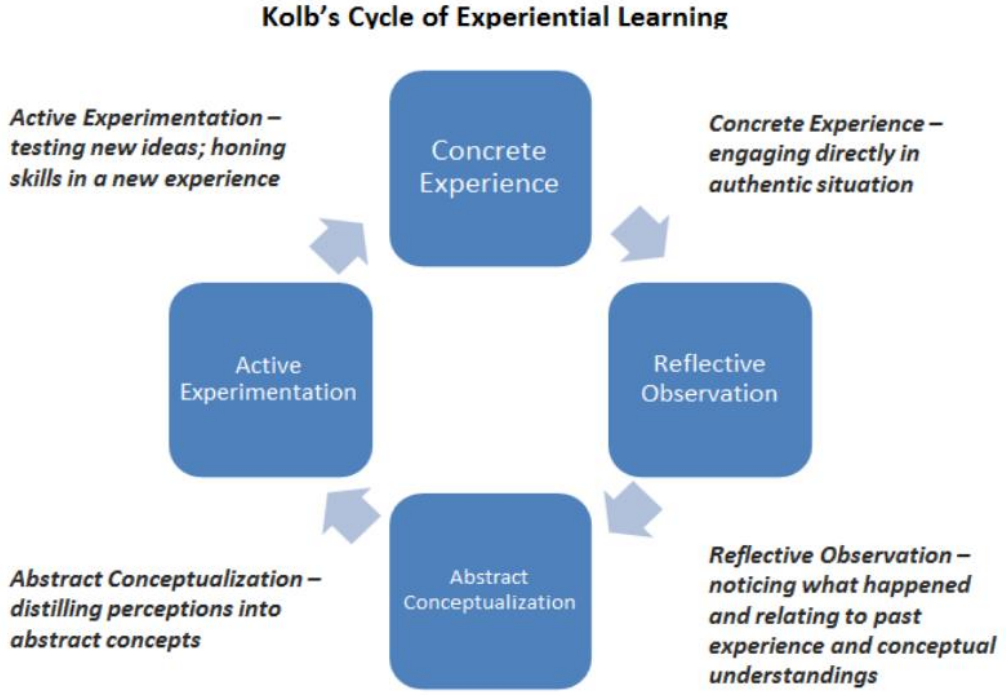


Figure 10. Kolb's model of experiential learning represents the cyclical nature of learning (University of Texas at Austin, 2017).

The idea of ELT is a solid foundation for the concept of mentoring. Through mentoring, experienced teachers assist inexperienced teachers in accessing new knowledge through development of the background knowledge and skills the inexperienced teacher already has allowing them to see relationships. The mentor acts

simply as a facilitator helping the new teacher experience their new environment in a context where the new teacher can weave, incorporate and synthesize their learning into a context suitable for their ability to succeed.

APPENDIX H

PROFESSIONAL LEARNING SERIES – MENTOR ACADEMY YEAR 1

OUTCOMES PARTS THREE AND FOUR

Part three. Mentor Training 3: Using Data to Inform Instruction (Arizona K-12 Center, 2017) is the third session in the PLS-MA1 series. Part three also consisted of four outcomes which are listed as follows: (a) reflect upon and discuss mentoring experiences since Observing and Conferencing; (b) use protocols for analyzing student work with beginning teachers; (c) incorporate relevant aspects of brain research to inform and transform instructional mentoring and teacher practice; (d) extend and expand upon the use of instructional mentoring language (New Teacher Center, 2015).

The basis of part three related to utilizing student work to facilitate conversations with mentees. In this session, mentoring is designed to come from a focus of modeling reflection, persistence, and curiosity while analyzing student work. Through modeling, mentors demonstrated these characteristics by selecting student work for analysis, reflecting on it, and evaluating teacher instructional practices in conjunction while considering brain-based learning research to determine future actions (New Teacher Center, 2015).

Part four. The last session in the PLS-MA1 series is called Mentor Training 4: Designing Effective Instruction (Arizona K-12 Center, 2017). It, too, had four outcomes as follows: (a) use learning and experiences (from self and others) to inform future mentoring practice; (b) use tools and protocols to support teachers as they plan assessment-driven differentiation instruction aligned to content standards; (c) apply strategies for providing meaningful feedback; (d) reflect upon professional growth and set next steps (New Teacher Center, 2015).

The final session in the four-series professional development culminated with this two-day workshop focused on guiding teachers through lesson planning. Gradual release

is the basis of lesson development so mentors were provided mentoring tools to support teacher growth in this area. Additionally, as in other sessions, practice was provided for use with mentoring tools and language with the final day relating specifically to individuals assessing their mentoring skills utilizing the NTC's Continuum of Mentoring Practice (New Teacher Center, 2015).