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A Continuum of Care: School Librarian Interventions for New Teacher Resilience

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A CONTINUUM OF CARE:
SCHOOL LIBRARIAN INTERVENTIONS FOR NEW TEACHER RESILIENCE

by

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PRELIMINARY PAGES

A CONTINUUM OF CARE: SCHOOL LIBRARIAN INTERVENTIONS FOR NEW TEACHER RESILIENCE

Rita Reinsel Soulen

Old Dominion University, 2018

Chair: Dr. Gail Dickinson

Abstract

School librarians occupy a unique position to offer supports for first year teachers to build resilience, reduce burnout, and ensure retention. The researcher used the psychology theory of resilience to develop the Continuum of Care model which initiates in mentoring and moves toward a collaborative partnership. Fifteen school librarians in one urban district recruited 26 new teachers in their schools to form the treatment group. All new teachers in the district were surveyed to establish their initial level of resilience and collect demographics. A comparison group of 26 new teachers were matched by scores on a resilience scale at the start of the school year, by school level and by Title I status of the school. The treatment group received interventions using the Continuum of Care model over the course of the following four months. Post-treatment, the comparison group and treatment group were surveyed for level of resilience, burnout, and retention. ANOVA was used to find change in resilience over time for the treatment group. ANCOVA was used to compare resilience and burnout scores for the comparison and treatment groups. Binary logistic regression was used to compare retention of the comparison and treatment groups. Interviews of three school librarian-new teacher pairs brought forth the

lived experiences of participants. Findings show that new teachers in the treatment group received significantly higher levels of mentoring and collaboration than new teachers in the comparison group. There was a significant effect for the interaction between level of resilience for the treatment group and age. School librarians and new teachers valued their relationship and voiced the effect on resilience, burnout, and retention. Reaching out to new teachers to bridge the gap between the library and classroom may be considered as best practice for school librarians. This exploratory research study laid the groundwork for further study of the role of the school librarian to support new teacher resilience in the authentic school setting.

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It takes a city to write a dissertation. The overwhelming support I have received from my family, friends, neighbors, teaching colleagues, administrators, and university faculty has certainly contributed to my resilience throughout the doctoral journey. So many have served as mentors and collaborators. So many more have been cheerleaders, counselors, consultants, advisors, and listeners.

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Table of Contents

	Page
PRELIMINARY PAGES	i
Abstract.....	i
Acknowledgments.....	vi
Table of Contents	vii
List of Tables	x
List of Figures	xi
CHAPTER I.....	1
Statement of the Problem.....	4
Theoretical Framework.....	4
Conceptual Framework.....	5
Purpose and Significance.....	6
Research Design.....	6
Research Questions and Hypotheses	12
Operational Definitions.....	14
Expected Outcomes	16
Expected Benefits and Impact	16
Conclusion	17
CHAPTER II.....	18
Theory of Resilience.....	19
Burnout and Attrition.....	22
Teacher Resilience	24
A New Model of Professional Development	30
Mentoring.....	32
Collaboration.....	35
Causal Research in the Field of School Librarianship.....	45
Conclusion	46
CHAPTER III	49
Research Questions.....	49
The Continuum of Care:	51
Population, Setting, and Sample	54

School Librarian Interventionists.....	54
New Teachers.....	58
Overall New Teacher Demographics.....	59
Treatment and Comparison Group Demographics	62
Overall Initial Resilience	65
The Study in Phases	69
Phase I: Initial Data Collection	69
Phase II: Interventions	70
Phase III: Final Data Collection.....	71
Formal Data Collection.....	72
Connor-Davidson Resilience Scale 10 (CD-RISC 10).....	72
Mentoring and Collaboration Items	73
Maslach Burnout Inventory-Educators Survey (MBI-ES)	73
Notice of Intent	74
Interviews.....	75
Formative Data Collection.....	77
New Teacher Formative Assessment.....	77
School Librarian Calendar of Interventions Checklist.....	78
Site Visits	78
Field Notes	79
Interventions	79
Engage.....	80
Empower	82
Partner	83
Co-Teach.....	84
Data Analysis	85
Mentoring/Collaboration Score	86
CD-RISC 10.....	86
MBI-ES	87
Intent to Return	88
Interview Data.....	88
Assumptions, Limitations, and Delimitations.....	91

Conclusion	92
CHAPTER IV	94
Preliminary Analysis.....	95
Qualitative Analysis.....	100
Research Questions 1 & 2.....	103
Research Question 3	117
Research Question 4	124
Conclusion	130
CHAPTER V	131
Discussion by Research Question.....	131
Implications.....	142
Causal Research in the Field.....	144
Recommendations.....	146
Limitations	148
Further Research	149
Conclusions.....	150
REFERENCES AND SUPPLEMENTAL SECTIONS.....	154
References.....	154
Appendices.....	171
A IRB Exempt Letters	171
B Formative Measures	175
C Formal Measures	180
D Housekeeping.....	193
E Data.....	196
Curriculum Vita	197

List of Tables

	Page
Table 1. Graphic Depiction of Non-randomized Comparison Group Pre-test/Post-test	10
Table 2. Survey Tools Used to Measure Resilience and Retention of New Teachers.....	11
Table 3. NCES Beginning Teacher Status	23
Table 4. Percent Attrition Beginning Teachers Starting 2007-2008 (1st Year)	32
Table 5. Demographic Composition of School Librarian Sample.....	55
Table 6. Demographic Composition of October 2017 New Teacher Questionnaire Respondents	60
Table 7. Demographic Composition of Treatment and Comparison Groups	64
Table 8. Overall New Teacher Initial Resilience.....	66
Table 9. Survey Tools Used to Measure Resilience and Retention of New Teachers.....	72
Table 10. November Interventions	81
Table 11. December Interventions	82
Table 12. January Interventions	83
Table 13. February Interventions	84
Table 14. Data Analysis.....	86
Table 15. Group Statistics October 2017 CD-RISC 10	96
Table 16. Independent Samples <i>T</i> -test October 2017 CD-RISC 10 (Equal Variances Assumed) 96	96
Table 17. New Teacher Mentoring and Collaboration Score Descriptives	97
Table 18. Independent Samples <i>T</i> -test for Mentoring/Collaboration Scores.....	100
Table 19. Descriptive Statistics CD-RISC 10, Treatment Group Only	105
Table 20. Paired Samples <i>T</i> -test, October 2017 – March 2018 CD-RISC 10	105
Table 21. Multivariate Tests Controlling for Age, Gender, and Race, Treatment Group Only .	105
Table 22. Tests of Within-Subjects Effects for October 2017 and March 2018 CD-RISC 10, Treatment Group Only	106
Table 23. Group Statistics March 2018 CD-RISC 10.....	107
Table 24. Independent Samples <i>T</i> -test March 2018 CD-RISC 10 (Equal Variances Assumed) 107	107
Table 25. Tests of Between Subjects Effects, Comparison and Treatment Groups	109
Table 26. Tests of Between-Subjects Effects with Gender, Age, and Race as Factors	109
Table 27. Tests of Between-Subjects Effects with Mentoring/Collaboration Score as Covariate	110
Table 28. Group Statistics March 2018 MBI-ES.....	118
Table 29. Independent Samples <i>T</i> -test March 2018 MBI-ES (Equal Variances Assumed)	118
Table 30. Tests of Between-Subjects Effects March 2018 MBI-ES	119
Table 31. Tests of Between-Subjects Effects March 2018 MBI-ES, Covariate Mentoring/Collaboration Score	120
Table 32. Logistic Regression Predicting Likelihood of Intent to Return.....	125

List of Figures

	Page
Figure 1. Continuum of Care	5
Figure 2. Doney Model of the Process Framework for Teacher Resilience	26
Figure 3. Greenfield Model of Teacher Resilience.....	27
Figure 4. Montiel-Overall Teacher and Librarian Collaboration Model	37
Figure 5. Family Systems Nursing Intervention Model for Paediatric Health Crisis	43
Figure 6. Continuum of Care Model of School Librarian Interventions for New Teacher Resilience.....	52
Figure 7. School Librarian Interventions for New Teacher Resilience	53
Figure 8. Phase I	70
Figure 9. Phase I-II	70
Figure 10. Phases I-III.....	71
Figure 11. Levels of Mentoring and Collaboration, Comparison and Treatment Groups	98
Figure 12. Summed Mentoring/Collaboration Scores, Comparison and Treatment Groups.....	98
Figure 13. Excerpts from Qualitative Matrix.....	102

CHAPTER I INTRODUCTION

The importance of resilience in retention of teachers has been a recurring topic in the recent professional literature (Beltman, Mansfield, & Price, 2011; Day & Gu, 2014; Early Career Teacher Resilience, 2012). Early career teachers who are in the process of induction into the field may be better able to survive and thrive in their first years as educators by adapting well in the face of work-related stressors (Beltman et al., 2011; Johnson & Down, 2013) and by bouncing back from difficult experiences (APA, 2017). The American Psychological Association presents practical ways to build resilience (APA, 2017). New teachers can learn to be resilient in order to meet the challenges inherent to the working life of the classroom (Doney, 2013; Greenfield, 2015). There are many experienced educators in the school who can expertly guide the new teacher through the process of building resilience (Beltman, Mansfield, and Harris, 2016). The school librarian, who has convenient access to diverse resources and works with the entire faculty, is situated in a unique position to provide support to new teachers (Morris, 2015). By partnering in a relationship which initiates in mentoring and moves toward collaboration (Montiel-Overall, 2008), the school librarian may provide supporting structures to build resilience of teachers in their first year. Through implementing a continuum of care using defined interventions, the school librarian can support the new teacher to build resilience. In turn, this resilience may increase the likelihood that the new teacher will remain in the teaching profession (Bobek, 2002; Tait, 2008).

The American Psychological Association (APA) defines resilience as “the process of adapting well in the face of adversity” by “bouncing back” from difficult experiences (APA,

2017). Resilient behaviors, thoughts and actions can be learned and developed (APA, 2017), and people commonly demonstrate resilience in response to emotional distress. When applied to the field of education, resilience is “the dynamic and complex interplay between individual, relational, and contextual conditions that either enable or constrain teachers’ power and agency” (Johnson et al., 2016, p. 7). Resilience is essential to teacher commitment. Therefore, efforts to build, sustain, and renew teacher resilience should be promoted during the first year of teaching to increase the quality of teaching, increase retention, and raise standards for learning and achievement (Day & Gu, 2014).

Teacher attrition is of concern for public schools. The research suggests that the loss of teachers from the profession can be disruptive to the learning environment, undermines school performance, and has a negative effect on student learning (Ronfeldt, Loeb, & Wyckoff, 2013). High teacher attrition rates also redirect resources to recruitment, hiring, and training while undermining the sense of community in the school ecology, which has a negative impact on student achievement (Raue & Gray, 2015). Overall, the percentage of teachers leaving the profession has been increasing. Between school years 1987-1988, 6 % of teachers left the profession, while between school years 2011-2012, 8% of teachers left the profession. For high poverty schools, the percentage of teachers leaving the profession was higher (10%) than for mid-high (7%), mid-low (8%), or low (6%) poverty schools (Kena et al, 2016). High school teachers left at slightly higher rates (7.8%) than middle (7.0%) or primary (7.4%) school teachers (Goldring, Taie, & Riddles, 2014).

Rates of attrition are particularly troubling for teachers in their first five years. For teachers new to the profession in 2007-2008, 10 % did not teach in 2008-2009, 12% did not teach in 2009-2010, 15% did not teach in 2010-2011, and 17% were not teaching in 2011-2012

(Gray & Taie, 2015). As a category, attrition of teachers in their first three years is surpassed only by attrition of older teachers reaching retirement (Ingersoll, 2001a; Kelly, 2004; Marvel, Lyter, Peltola, Strizek, & Morton, 2007). The five-year career path of 2007-2008 beginning public school teachers included 6% who did not teach all years and were not expected to return, plus 4% who did not teach all years and their return status was undetermined. For those who did not teach in all five of their first years, 26% were not expected to return. Among teachers who did not teach in all five of their first years, 51% most recently taught in schools with 50% or more of students eligible for free or reduced-price lunch. Among beginning teachers who left during the five years, a larger percentage of primary teachers returned or are expected to return (79%) compared to middle (44%) or high (46%) school teachers (Raue & Gray, 2015).

Reversal of these trends may be possible. Research does show that mentoring in the first years makes a difference (Gray & Taie, 2015), and that teachers who experience success in their work build personal beliefs about their capabilities, exercising influence over life events (Bandura, 1998), which interacts with the growth of resilient qualities (Beltman et al., 2011). Anecdotal evidence suggests that, in practice, school librarians may contribute to a collegial school environment by welcoming new teachers (Morris, 2015). However, this practice remains unsupported by scholarly studies. Missing from the research is literature describing the influence of school librarians on the resilience and retention of new teachers. Models of librarian-teacher collaboration have been developed, yet the special relationship of the first-year teacher with the school librarian and the ways the librarian guides the new teacher has not yet been explored in the literature.

Statement of the Problem

First year teachers who are learning to manage the challenges of the classroom can benefit from collegial support to build resilience, reduce burnout, and ensure retention. As part of this support structure, school librarians in individual practice may take social responsibility for the development of new teachers (Morris, 2015). However, the field of school librarianship does not have a model of care for new teachers as a special population. Furthermore, formal research investigating how librarians support entering faculty in school communities has not been found in the literature.

Theoretical Framework

This study is framed in the psychology theory of resilience (Seligman & Csikszentmihalyi, 2000) applied to an educational institution setting. In the millennial issue of the American Psychologist, Seligman and Csikszentmihalyi (2000) outlined a framework for a new science of positive psychology, defining this blossoming field which fosters positive attitudes toward subjective experiences, individual traits, and life events through psychological interventions. They hoped to catalyze a change in the focus of psychologists from preoccupation with repairing the worst things in life to building positive qualities.

Conceptual Framework

The conceptual framework for this study is constructed around the role of the school librarian in the space of professional development to mentor and induct the new teacher into the profession. By developing a collaborative relationship, the school librarian supports the new teacher to build resilience, reduce burnout, and increase retention. Using the Continuum of Care model which was developed for this study, the framework initiates in a mentoring role with the librarian guiding the new teacher to build skills and confidence, moving gradually toward a collaborative partnership of professional parity. This movement may fluctuate between mentoring and collaboration but progresses steadily toward a true professional partnership (see Figure 1).

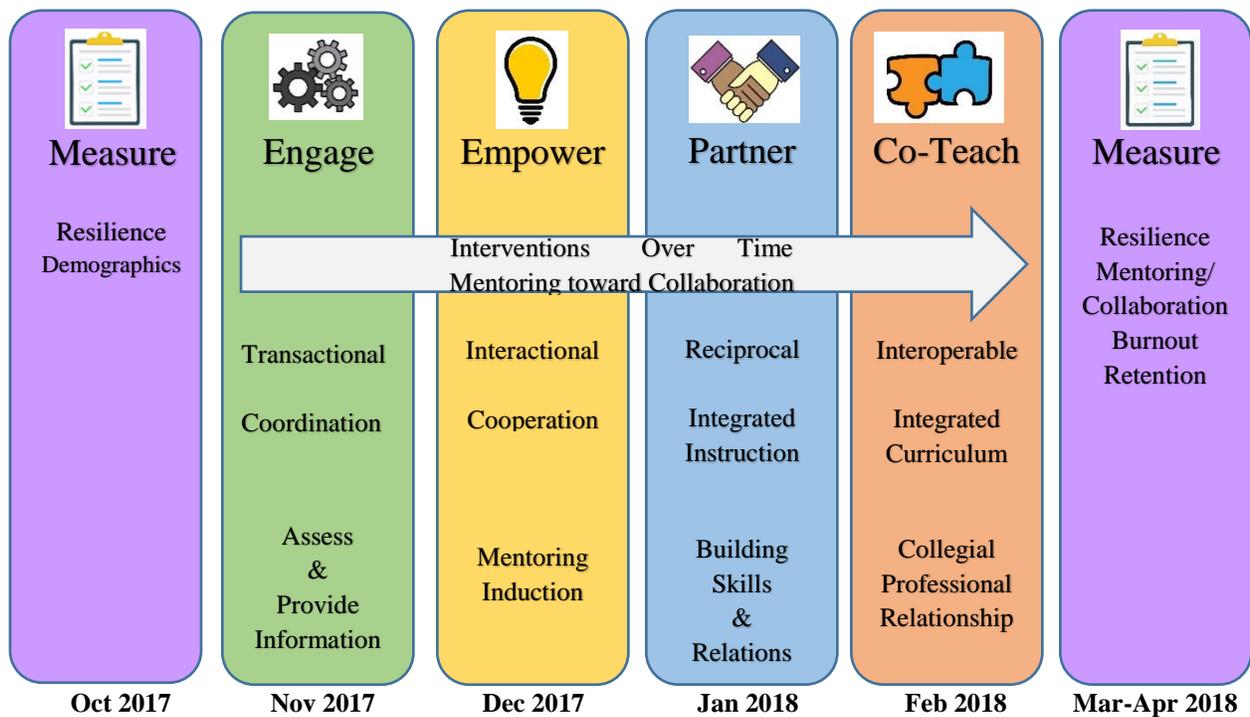


Figure 1. Continuum of Care

The socio-cultural, critical perspective of early career teacher resilience (Johnson et al, 2016) is applied in this study through a matched sample design, emphasizing activism to develop collaborative and trusting relationships that empower teachers. To this end, establishing a relationship of mentoring which builds toward collaboration through prescriptive interventions of the school librarian to the benefit of new teachers will be the process, resulting in increased resilience, reduced burnout, and retention as the measured products.

Purpose and Significance

The purpose of this study is to determine the effectiveness of standardized interventions performed by school librarians for new teachers to build the resilience necessary to survive and thrive (Beltman et al., 2011) as classroom teachers and to promote retention. This study is significant in that actions taken by the school librarian may promote new teacher resilience, leading to a defined Continuum of Care by school librarians for new teachers and increasing knowledge of the influence of the school librarian on the professional lives of new teachers.

Research Design

This study took place in fourteen K-12 schools in one urban school district in a mid-Atlantic state during the school year 2017-2018. Fifteen school librarians were recruited through the district Office of Media Services by inviting volunteers to serve as interventionists for new teachers. These librarians, in turn, recruited new teachers in their buildings to participate in the

study. These new teachers who made up the treatment group were then matched to other new teachers within the district who were not involved in the study to form the comparison group.

The study population consisted of 26 new (first year) teachers with a matched sample of 26 new teachers ($N=52$). All were full-time and in their first contract year of teaching. Interventions were defined by the researcher and implemented by the school librarian(s) at each school. These interventions were selected by combing the literature on teacher mentoring, teacher resilience, teacher retention, school librarian collaboration with teachers, and school librarian preparation (Lipton & Wellman, 2003; Loertscher, 2000; Montiel-Overall & Hernandez, 2012; Turner & Riedling, 2003; Morris, 2015). Those interventions which addressed new teacher support, resilience, burnout, and retention were adopted for use in this study. All school librarians serving as interventionists were full-time and certified as a school library media specialist according to state requirements and had at least three years of experience either as a teacher or as a school librarian.

Data from a questionnaire conducted in October 2017 (see Appendix C) were used to determine initial levels of resilience of the new teachers. All new teachers in the district who were in their first full-time, contracted year of teaching were provided opportunity to complete the October 2017 questionnaire, which consisted of a measure of resilience and demographic data. The treatment group received defined interventions from their school librarian during the study while the comparison group did not receive these interventions. The comparison group was matched to the treatment group first by initial resilience level, then by grade level taught, then by Title I status of the school. Data from the October 2017 questionnaire were also used to compare within group levels of resilience of the treatment group at the initiation of the school year to levels of resilience of this same treatment group at the closure of the study.

The school librarians received training for implementation of the interventions and signed an agreement prior to the start of the study to clarify responsibilities and serve as a blueprint for mentor-mentee interactions (Lorenzetti & Powelson, 2015). This informal and non-binding contract served to acknowledge the school librarians' responsibility to implement the interventions and to assure confidentiality in the relationship. In return, the school librarians serving as interventionists received a stipend and were entered into a raffle to attend a national conference to encourage participation (Lorenzetti & Powelson, 2015). Weekly interventions for new teachers, defined by the researcher and executed by the school librarians, were implemented from November 2017 through February 2018. Interventions were rolled out according to a planned calendar. Formative data and field notes were collected by the researcher to record interventionists' input and discussion (Hays & Singh, 2012).

Post-intervention data were collected in March and April 2018 from the new teachers in the treatment group and the matched sample. The March 2018 questionnaire consisted of measures for resilience, burnout, retention, and level of mentoring and collaboration between the school librarian and new teacher. Demographics of the school librarians who served as interventionists were collected to identify factors which may contribute to resilience and retention of new teachers.

In addition to quantitative methods, this study used a qualitative examination of school librarians' and new teachers' perceptions and beliefs about mentoring and collaboration behaviors which increase resilience of new teachers. A phenomenological approach (Moustakas, 1994) was used to explore the lived experiences (McMillan & Schumacher, 2010) of the new teachers in the first full-time, contracted year of teaching and of the school librarians providing interventions, and to discover and describe the strategies they enacted in practice as they engaged

in mentoring and collaboration activities (Hayes and Singh, 2012). Using a small criterion sample of three school librarians and three new teachers, qualitative data were collected in April 2018 through interviews of pairs who had worked together throughout the study. Each new teacher and school librarian were interviewed separately to ensure fidelity in reporting. This analysis provided for thick description (Geertz, 1973) of the mentoring toward collaboration relationship.

For the qualitative data collection, one school librarian-new teacher pair was randomly selected at the elementary, middle, and high school levels for semi-structured interviews which were conducted in April 2018. In total, six participants representing three sites were interviewed to explore their experiences.

The quasi-experimental design of this study (Leedy & Ormrod, 2016) included a non-randomized comparison group pre-test/post-test design (see Table 1) to show that the two groups were equivalent with respect to level of resilience prior to treatment. This was to eliminate initial group differences as an explanation for post-treatment differences, and to strengthen the design by identifying matched pairs (Leedy & Ormrod) of new teachers in the treatment and comparison groups.

Table 1. Graphic Depiction of Non-randomized Comparison Group Pre-test/Post-test

Group	Time	→		
Treatment	Observation 1 Oct 2017 Questionnaire <ul style="list-style-type: none"> • Resilience scale • Demographic data 	Implementation of treatment Nov 2017-Mar 2018 Standardized interventions by school librarians for new teachers	Observation 2 Mar 2018 Questionnaire <ul style="list-style-type: none"> • Resilience scale • Level of mentoring/ collaboration • Burnout inventory • Notice of intent 	Observation 3 Apr 2018 Interviews of school librarian- new teacher pairs
Comparison	Observation 1 Oct 2017 Questionnaire <ul style="list-style-type: none"> • Resilience scale • Demographic data 	No implementation of treatment	Observation 2 Mar 2018 Questionnaire <ul style="list-style-type: none"> • Resilience scale • Level of mentoring/ collaboration • Burnout inventory • Notice of intent 	No interviews

Table based on Leedy & Ormrod, 2016, pp. 189-90 and p. 198.

Four tools were presented to measure development of resilience and retention of new teachers (see Table 2). These four scales included The Connor-Davidson Resilience Scale 10 (CD-RISC 10), items to determine level of mentoring/collaboration between the school librarian-new teacher pair, the Maslach Burnout Inventory- Educators Survey (MBI-ES), and the district annual notice of intent.

Table 2. Survey Tools Used to Measure Resilience and Retention of New Teachers

<u>Tool</u>	<u>Description</u>
Connor-Davidson Resilience Scale 10 (CD-RISC 10)	10 items to measure resilience of new teachers.
Mentoring/Collaboration Score	2 items to measure the amount of mentoring and collaboration by school librarians for new teachers.
Maslach Burnout Inventory-Educators Survey (MBI-ES)	22 items to measure burnout level of new teachers.
Notice of intent	Annual district yes/no survey of all teachers to determine intent to return to current position.

The CD-RISC 10, which received high psychometric ratings (Connor & Davidson, 2003; Windle, Bennett, & Noyes, 2011) served as the resilience scale. Items to determine level of mentoring/collaboration were assessed on a Likert scale from no mentoring/collaboration to high mentoring/collaboration. The district notice of intent to continue in the current teaching position served as the measure of retention and is standard annual practice by this school district to determine preparation of contracts for the upcoming school year. The MBI-ES measured burnout as the inverse to resilience and was selected from the literature due to its use in other quantitative studies of teacher resilience (Beltman et al., 2011; Goddard & O'Brien, 2004; Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008).

To analyze the data, within-subject scores for the treatment group on the pre-test questionnaire and post-test on the CD-RISC 10 resilience scale were compared to identify changes over time. Additionally, scores on the resilience scale and the burnout inventory were compared between the comparison group and the treatment group to determine differences between groups. To triangulate the data, the rate of intent to return to the same teaching position

was also compared between the comparison group and the treatment group.

Mentoring/collaboration scores were compared between the treatment and comparison groups.

The interviews were voice recorded and transcribed, coded, then analyzed for themes and patterns. This process allowed the researcher to move from significant statements, to meaning units, to the exploration of subthemes and resulted in detailed description of the lived experiences of study participants (McMillan & Schumacher, 2010).

This study, *A Continuum of Care: School Librarian Interventions for New Teacher Resilience*, was funded by a \$10,000 grant from the American Association of School Librarians (AASL). The purpose of the grant funding was to support causal research in the field of school libraries through the AASL *Causality: School Libraries and Student Success (CLASS II)* initiative (AASL, 2014). Specifically, this study used a quasi-experimental design approaching causal explanation to isolate the effects of the work of state-certified school librarians (Soulén, 2016). The study identified and tested a model in the field to further uncover a causal relationship between best practice of school librarians in the authentic school library context (Mardis, Kimmel, & Pasquini, 2018) and the development and retention of new teachers.

Research Questions and Hypotheses

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

H1: New teachers who receive standardized interventions from the school librarian will significantly increase their scores on a resilience scale from October to March of a school year.

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

H2: New teachers who receive standardized interventions from the school librarian demonstrate significantly higher scores on a resilience scale in March of a school year as compared to new teachers who do not receive these interventions.

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

H3: New teachers who receive standardized interventions from the school librarian will demonstrate significantly lower scores on a burnout inventory in March of a school year as compared to new teachers who do not receive these interventions.

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

H4: New teachers who receive standardized interventions from the school librarian are significantly more likely to intend to return to their current teaching position as compared to new teachers who do not receive these interventions.

Operational Definitions

The following definitions operationally identify constructs, characteristics of the sample, and variables investigated in this study.

Burnout: feelings of emotional exhaustion, depersonalization, and a lack of personal accomplishment (Maslach, Jackson, Leiter, & Schaufeli, 1996).

Collaboration: working together; creating a space for shared idea generation, analysis and reflection; participation as equals in planning, reflecting, and problem-solving (Lipton & Wellman, 2003).

Collegial professional relationship: responsibilities of teaching shared equally between skilled educators in a balance of powers.

Cooperation: “responsibilities are divided among participants to create a whole project” (Montiel-Overall, 2008, p. 146).

Coordination: “working together to arrange schedules, manage time efficiently, and avoid overlap” (Montiel-Overall, 2008, p. 146).

Interactional: influenced by mutual action.

Interoperable: capable of being shared between different systems.

Integrated curriculum: Integrated instruction occurring across a school or school district (Montiel-Overall, 2008).

Integrated instruction: “Jointly planned, implemented, and evaluated instruction integrates library curriculum and content curriculum in a lesson or unit” (Montiel-Overall, 2008, p. 146).

Intention notice: a formalized agreement at the end of the school year whose signature indicates willingness to return to the same contracted teaching position for the following school year.

Leavers: teachers who depart the profession (Gray & Taie, 2015).

Mentoring: personal guidance provided by seasoned veterans to beginning teachers in schools (Smith & Ingersoll, 2004).

Movers: teachers who remain in the profession but move to a new position (Gray & Taie, 2015).

New teacher: a professional teacher in their first full-time, contract year.

Reciprocal: mutual exchange.

Resilience: the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress by bouncing back from difficult experiences (APA, 2017).

Retention: signed contract to return to the same teaching position for the following school year.

School librarian: a full-time, certified according to the state standards professional who administrates a school library program. Also known as media specialist, library media specialist, or teacher librarian.

Stayers: teachers who remain in the profession for the following school year (Gray & Taie, 2015).

Transactional: transmittal of an item carried out through a relationship, especially as influenced by assumed roles.

Expected Outcomes

There are several expected outcomes of this research. First, results may show increased resilience of new teachers who received interventions from school librarians over a four-month period. Secondly, teachers who received interventions from the school librarian may show greater resilience and lesser burnout when compared to new teachers who did not receive these interventions. Finally, teachers who received interventions from the school librarian may show greater intent to return to the current teaching position when compared to new teachers who did not receive these interventions. This study may direct the field of research in school libraries toward causal research of best practices for school librarians in the professional development of new teachers.

Expected Benefits and Impact

This research is expected to benefit the field of school librarianship by outlining a research-based model of a Continuum of Care for new teachers as best practice for school librarians. Results of this study may impact the burgeoning field of teacher resilience by defining the role of school librarians in fostering resilience of new teachers. Results of this study will add to the knowledge of evidence-based practice in both school librarianship and teacher resilience using research methods which approach causality.

Conclusion

The intent of this study is to better define a Continuum of Care by way of prescriptive interventions by school librarians to increase new teacher resilience and retention. This first chapter introduced the importance of building resilience in new teachers through support activities by school librarians which begin with mentoring and move toward collaboration. The remainder of the paper is organized as follows. In Chapter II, the literature on the theory of resilience and retention as it applies to new teachers through a Continuum of Care model will be reviewed. Chapter III will present the methodological framework to be used to examine building resilience in new teachers by implementing the Continuum of Care for new teachers. Chapter IV will present the results of analyzing the data collected by the instruments used to measure resilience, burnout, and retention of new teachers who were exposed to these interventions and those new teachers in the matched samples. Chapter V will discuss these results in terms of the broader implications for theory and practice, outline the limitations of the research, and explore avenues for further study. Taken together, these five chapters will provide a fresh view of new teacher resilience through the lens of the school librarian.

CHAPTER II REVIEW OF LITERATURE

Teacher retention is a concern for many public-school districts. New teachers as a fragile population merit added support from more experienced educators (VDOE, 2017). Without support, these vulnerable new teachers may struggle to access the personal resilience needed to avoid burnout and attrition. The purpose of this study is to investigate how the practices of school librarians influence new teacher resilience and retention and to provide a Continuum of Care by school librarians for new teachers. This study explores the relationship between the level of new teacher resilience at the start of the school year and the level of resilience of the same group of new teachers five months later after receiving interventions from the school librarian. It also explores the level of new teacher resilience, burnout, and retention for new teachers receiving interventions from the school librarian compared to new teachers who did not receive these interventions. A description of the relationship of the school librarian-new teacher pair provides depth to the study.

This literature review will begin by exploring the construct of resilience as it is traced through history and situated in positive psychology. The next section describes teacher burnout and attrition, and the characteristics of resilience, as well as the factors that contribute to resilience, and recommendations for building resilience. The following section explores teacher resilience as it relates to retention, burnout, and attrition. The next section addresses a new model of mentoring and collaboration as professional development, and the need for development of a Continuum of Care for new teachers by school librarians. The final section explores causal research in the field of school librarianship.

Theory of Resilience

This dissertation is rooted in the psychological theory of resilience as the theoretical framework to guide the study. Aldwin, Cunningham, and Taylor (2010) described Werner as a seminal figure in developmental psychology. They attributed a new field of resilience theory to Werner (1995), who studied children at risk due to chronic poverty, adverse family environments, and perinatal stress. She and co-author Smith observed that of those children who faced adversity, the majority developed normally. They described resilience as a function of internal characteristics of the child and social support provided by family and community, emphasizing the plasticity of development and a contextual, life-span approach to resilience as a phenomenon that can unfold over decades (Aldwin et al., 2010). This theory of resilience, as it is situated in positive psychology, is fundamentally about healing. Through the theory of resilience, psychologists are beginning to understand not only how to cope with negative life events, but how to recognize what makes life worth living (Muchinsky, 2006). Although rooted in experiences of trauma, the concept of resilience can be applied to the general population (Campbell-Sills and Stein, 2009).

The word “resilience” is rooted in Latin, consisting of ‘salire,’ to jump, and ‘re,’ back, translating to “jump back”, or return to the original state (Smith, Epstein, Ortiz, Christopher, Tooley, 2013, p. 167). Resilience has come to be regarded, however, as positive development beyond mere readjustment (Davis, Luecken, & Lemery-Chalfant, 2009). According to the American Psychological Association (APA) it is “the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress... ‘bouncing back’ from difficult experiences” (APA, 2017). More broadly, the International Encyclopedia of the Social

& Behavioral Sciences defines resilience as “the positive adaptation and sustainable development of a system to respond to short- or long-term everyday challenges or severe stress” (Steinebach, 2015, p. 557). By dealing with environmental stressors, the human system defines new reference values and develops required competencies, improving the ability to cope with future stresses (Steinebach, 2015). Resilience was somewhat differently defined by Masten, Best, and Garmezy (1990) as “the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances” (Masten et al., 1990, p. 426). Powers (2010) defined resilience as dynamic, a process of positive adaptation in the context of adversity. From this perspective, protective factors provide the building blocks of resilience, with risk factors being associated with negative outcomes while increasing protective factors may enable functionality despite the risks (Powers, 2010).

Resilience involves ordinary behaviors, thoughts and actions that can be learned and developed in anyone (APA, 2017). Resilience is a combination of internal characteristics, such as positive problem solving and communication skills, intelligence, and social support (Aldwin et al., 2010). Powers (2010) used the risk and resilience perspective to suggest that positive and protective factors may buffer the effects of risk factors to encourage resilience within the social environment.

Operationalizing and measuring resilience as a construct have been of increasing interest as it may provide evidence about central factors for regaining and maintaining mental health (Friborg, Barlaug, Martinussen, Rosenvinge, & Hjemdal, 2005). The APA identified four factors that indicate resilience. These included the capacity to make realistic plans and take steps to carry them out, a positive self-view and confidence in personal strengths and abilities, communication and problem-solving skills, and the capacity to manage strong feelings and

impulses (APA, 2017). One measure of resilience, the Connor-Davidson Resilience Scale (CD-RISC), measures factors that indicate resilience, such as personal competence, acceptance of change and secure relationships, trust/tolerance/strengthening effects of stress, control, and spiritual influences (Positive Psychology Program, n.d.). The Maslach Burnout Inventory has also been used to measure the negative factors of burnout which can be inversely related to resilience including exhaustion, detachment, and lack of effectiveness (Maslach Burnout Inventory, 2017).

The APA offers 10 ways to build resilience based on the factors described above. Individuals can foster their resilience by making connections, avoiding seeing crises as insurmountable, accepting change, moving towards goals, taking decisive actions, looking for opportunities for self-discovery, nurturing a positive self-view, keeping perspective, maintaining hope, and taking care of the personal self (APA, 2017). In addition, resilience may be strengthened by writing about thoughts and feelings related to stressful life events, meditation, and spiritual practices (APA, 2017). Individuals become resilient by learning to adjust to negative conditions, aided by resources which inform their perspectives and decision making (Bobek, 2002). In one study of the effect of interventions on resilience, scores on the Connor-Davidson Resilience Scale (CD-RISC) were shown to increase with treatments that were hypothesized to enhance resilience (Davidson et al., 2005). Thus, the theory of resilience may be useful to apply in an educational setting through support of new teachers.

Burnout and Attrition

Teacher burnout, defined as feelings of emotional exhaustion, depersonalization, and a lack of personal accomplishment (Maslach et al., 1996), may be one factor which contributes to the high attrition rates seen in the teaching field (Rumschlag, 2017). In the United States, national data for 2007-2008 (see Table 3) show that among all beginning teachers, 10% did not teach in the following year and 17% had left the teaching field just four years later (Gray & Taie, 2015). Attrition rates are high among new teachers, as much as 41 percent within the first five years, and highest in urban, high poverty, and lower performing schools (Raue & Gray, 2015). Attrition rates even as high as 50 percent in the first five years of teaching have been found, with the best and brightest most likely to leave (Smith & Ingersoll, 2004). In a 20 year study of a cohort of 87 Swedish teachers, Lindqvist, Nordänger, and Carlsson (2014) found that five years after starting work as teachers, only 72% of the cohort reported that they were actively teaching. These authors suggested that retention and support of active teachers, rather than training more and more, would be a better solution to the serious problems of teacher turnover and attrition, metaphorically patching the holes in the bucket before pouring more water in (Lindqvist et al., 2014). By addressing teacher burnout, the field may be able to, in part, address the problem of teacher attrition which negatively affects teacher quality, student learning, and staffing problems (Raue & Gray, 2015). Additionally, school districts may benefit from a reduction in attrition rates by expending less resources on recruitment, hiring, and training, which could be better spent on academic programs and services (Raue & Gray, 2015).

Table 3. NCEB Beginning Teacher Status

<u>Year</u>	<u>Total Beginning Teachers Surveyed</u>	<u>Percent Currently Teaching</u>	<u>Percent Not Teaching</u>
2007-2008	156,100	100.0%	-
2008-2009	156,100	90.0%	10.0%
2009-2010	156,100	87.7%	12.3%
2010-2011	155,800	85.2%	14.8%
2011-2012	155,600	82.7%	17.3%

*Data from Gray & Taie, 2015, p. 6

New teachers, in particular, may be susceptible to burnout, leading to their higher levels of attrition. Using the Friedman Scale for Measuring Teacher Burnout, Gavish and Friedman (2010) found high levels of burnout among 123 teachers in both November and May of their first year of teaching. Burnout levels among the new teachers in their study were also found to be higher than a national sample of senior teachers. Similarly, using the MBI-ES, Goddard, O'Brien, and Goddard (2006) found that beginning teacher burnout increased over a two-year period. These increases resulted in significant levels of burnout when compared to normative data on two of three subscales. Higher burnout levels were also found in beginning teachers compared to an earlier survey of teachers in Victoria, Australia (Goddard & O'Brien, 2004).

New teachers may also be susceptible to burnout levels of their colleagues. Kim, Youngs, and Frank (2017) in a study of 171 early career teachers and their formal and informal mentors found a significant association between organizational exposure to burnout and the early career teachers' burnout level in the latter part of the school year. Compared to formal mentors, burnout levels of close colleagues, also known as contagious burnout, had greater influence on burnout levels of new teachers (Kim et al., 2017). Thus, burnout of new teachers may be molded by attitudes of other teachers with whom they closely interact.

Marcoux (2007) maintained that new teachers could maximize their rewards by seeking advice, guidance, and assistance thereby producing better educational results. Likewise, Kim et al. (2017) found that the social networks of formal mentors and close colleagues, which impacted socialization of early career teachers, provide a process to acquire resources such as curricular knowledge, materials for lesson planning, and knowledge of student behavior. These social networks influenced new teacher burnout as they reached out to their colleagues to gather resources to fulfill their teaching responsibilities, particularly in schools with higher percentages of low SES students where the incidence of burnout in new teachers was greater (Kim et al., 2017). Similarly, Raue and Gray (2015) found that the effect of teacher attrition was more significant in schools serving low-performing and majority-minority students. To escape from this cycle of burnout and turnover, effective provision of resources, such as physical materials, professional development, and assistance with lesson development at the school level (Kim et al.) and support for new teachers through induction and mentoring have been shown to be factors in teacher retention (Raue & Gray, 2015). By putting in place structures to support new teachers, burnout and attrition may be avoidable.

Teacher Resilience

In the helping professions, measures of burnout and resilience produce inversely associated results (Taku, 2014), and interventions which promote resilience reduce feelings of burnout (Jackson-Jordan, 2013; Rushton, Batcheller, Schroeder, and Donohue, 2015). Public school teachers, who may face demanding work environments with little support, at times respond by exhibiting physiological, emotional, and behavioral manifestations of stress (Lantieri, Kyse, Harnett, & Malkmus, 2011). However, the stress of working in a classroom setting may be

mitigated by greater resilience of the teacher. Defining career resilience as resistance to career disruption and the ability to handle poor working conditions, O’Leary (1998) highlighted the opportunity for growth and challenge to promote thriving and nurturing strengths. Further defining resilience as “the ability to bounce back from adversity, frustration, and misfortune” Ledesma (2014, p. 1) found that organizations influence the building of their employees’ resilience capacity and thus must commit to fostering the resiliency of the employee (Ledesma, 2014). Teacher resiliency plays a role in classroom success and teacher retention (Arnup & Bowles, 2016; Tait, 2008), and depends on fostering productive relationships, a sense of career competence, personal ownership and advancement in the profession, feelings of accomplishment, and a sense of humor (Bobek, 2002). Gu and Day (2007) recognized teacher resilience as necessary for effectiveness and acquirable through provision of relevant and practical protective factors such as staff collegiality, positive school leadership, professional learning, and collaborative partnerships (Gu & Day, 2013).

In a review of the research on teacher resilience, Beltman, Mansfield, and Price (2011) described resilience as complex, dynamic, idiosyncratic, and cyclical involving interaction between person and environment, evidenced by individual response to challenging situations and involving both protective and risk factors. School communities that enable teacher resilience may include the support of other educators in the building, such as school psychologists, who build relationships in partnership with the broader school ecologies (Beltman et al., 2016).

Models of teacher resilience were found in the literature. New teachers, who are at greater risk of burnout and attrition, benefit from structures that increase their retention. Castro, Kelly, and Shih (2010) focused on ways new teachers adapted and implemented strategies as avenues for coping and sustenance given the realities of teaching context. They acknowledged

the fundamental role of the organization of the school and the effect that resilience strategies had on teachers' creation of new resources through persistence, effort, and productive energy (Castro et al., 2010). Doney (2013) developed a model of new teacher resilience (see Figure 2) showing that mentors can encourage new teacher retention by fostering resilience. Her model of a process framework showed the interaction of stressors and protective factors that interact to foster resilience in new teachers to encourage teacher retention. Results of Doney's qualitative study of four novice secondary science teachers suggest that stressors and protective factors interact and stimulate responses that counteract the negative effects of stress (Doney, 2013).

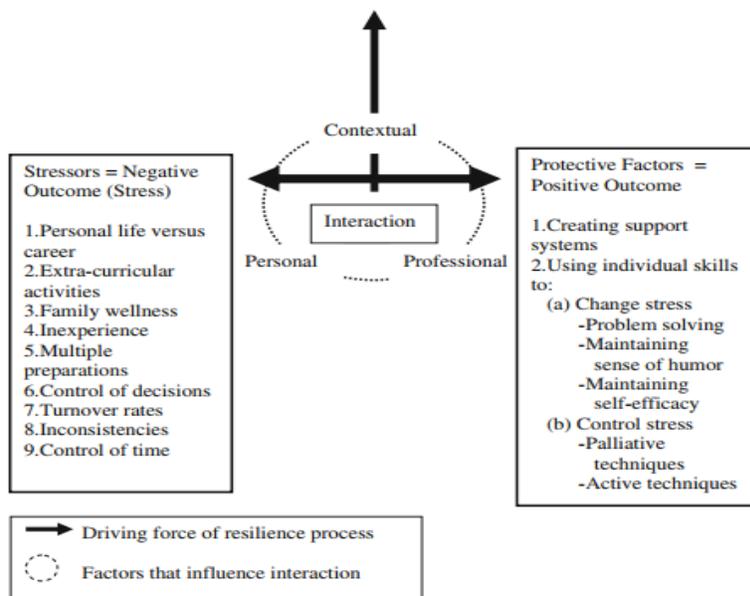


Figure 2. Doney Model of the Process Framework for Teacher Resilience (Doney, 2013, p. 650)

Based on Doney's model, Greenfield (2015) proposed a model of teacher resilience (see Figure 3) which was characterized as a collection of dynamic interactions between thoughts, relationships, actions, and challenges. He presented the resilience process as protective relationships and actions which provide a buffer between personal beliefs and external

challenges. Greenfield saw the protection and promotion of teacher beliefs, centered at the core of his model, as the key to sustaining teacher motivation and commitment to the profession (Greenfield, 2015). Arnup and Bowles (2016) found that low resilience and job dissatisfaction among teachers with less than 10 years of experience significantly predicted intent to leave the teaching profession, with resilience explaining additional variation in intent to leave teaching more than job satisfaction and teacher demographics. High levels of teacher turnover is of concern as it relates to school cohesion and, in turn, student performance (Ingersoll, 2001b).

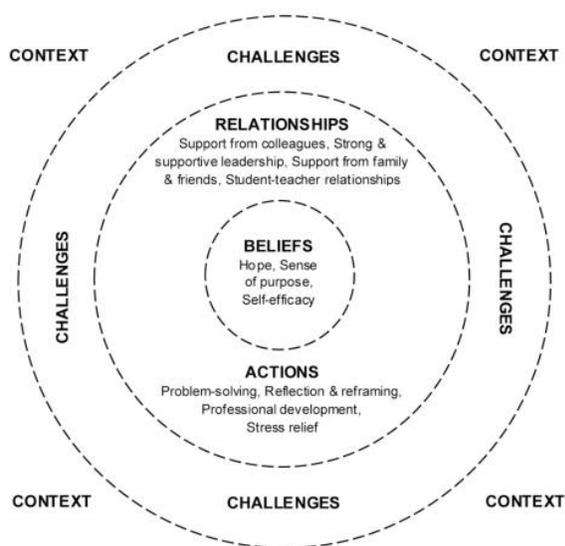


Figure 3. Greenfield Model of Teacher Resilience

(Greenfield, 2015, p. 61)

In a case study of new teachers who reported a high incidence of stress and coping strategies in Australian rural schools, Sharplin, O'Neill, and Chapman (2011) developed a storyline of common experiences of new teachers. They identified three critical periods for which interventions were most effective. These included the first weeks of appointment for

access to information and support structures; the first semester for support, professional development, and feedback; and 3-4 months prior to the end of the year for career continuity and certainty of return. They recommended policies to provide targeted interventions during these three phases to improve the quality of work life for new teachers.

The Early Career Teacher Resilience project investigated how teachers developed and sustained their commitment to teaching and provided evidence-based interventions to increase commitment and reduce attrition. The framework described the importance of promoting a sense of belonging, acceptance, and wellbeing, fostering professional growth, and promoting collective ownership and responsibility for professional relationships (Early Career Teacher Resilience, 2012). Policies and practices that create innovative partnerships and initiatives to smooth transition to the workforce were encouraged to enhance new teacher resilience (Early Career Teacher Resilience, 2012).

In an effort to understand and represent the experiences of early career teachers, Johnson and Down (2013) began by critiquing traditional human resilience research but moved beyond the critique to an emergent critical perspective of teacher resilience. They saw three problems in mainstream conceptions of resilience, namely reduction to bundles of risk and protective factors, hyper-individualistic analysis of the causes and amelioration of human problems, and implicit normativity of Western, middle class values. They re-position new teacher resilience to a critical perspective linking “private troubles” to “public issues” while focusing on the role of culture to empower teachers, creating a spirit of optimism, human agency, and health and well-being for new teachers (Johnson & Down, 2013). But merely understanding and representing new teacher experiences may not be enough. Actions put in place to create structures which increase resilience in new teachers may provide the scaffold on which to build a budding career.

Resilience has been found to be related to retention. Combes Malcom (2007) found a parallel between the major attributes of resilience and retention. Both were connected to building relationships, a sense of purpose, a positive and supportive environment, a sense of agency, an ability to see difficulties as challenges, and high-quality preparation (Combes Malcom, 2007).

Tait (2008) focused on the relationship between resiliency, personal efficacy, and emotional competence. She identified capacities of new teachers who strongly demonstrated social competence, personal efficacy, problem solving strategies, and an ability to rebound after a difficult experience, learning from experience, setting goals for the future, self-care, and optimism. Her research showed that beginning teachers need support from mentors, colleagues and administration at the school level to enhance their commitment to the profession (Tait, 2008). Doney (2013) further supported Tait's conclusion by identifying the underlying mechanism as an ability to manage a cycle of shifting stressors, revised protective factors, and building resilience allied with recovering strength under adverse conditions.

Arnup and Bowles (2016) showed that resilience explained variance in intention to leave teaching, pointing out that schools may assist teachers in increasing their resilience through school support and resilience programs. They also identified supportive and highly collaborative schools as most successful at retaining teachers and recommended implementation of resilience programs in schools as initiatives to increase resilience of teachers and to decrease the number of teachers leaving the profession (Arnup & Bowles, 2016).

Resilience may be key to understanding why teachers leave the profession. Thus, efforts to increase resilience may assist early career teachers to cope with stress and become more committed to teaching (Arnup & Bowles, 2016). In a randomized control trial of the impact of a transformational professional development program for teachers, the Inner Resilience Program

identified statistically significant and meaningful impact for reducing teachers' perceived stress levels, increasing teacher levels of attention and mindfulness, and strengthening relational trust with colleagues (Lantieri et al., 2011). Teachers in the study learned to nurture their inner lives by attending yoga classes and participating in reflective approaches to stress management, group dialogue, contemplative practices, journaling, shared meals, and a weekend retreat (Lantieri et al., 2011). Teachers who participated in the program adopted a more resilient mindset by applying stress management and coping skills and by calling on the support of colleagues (Lantieri et al., 2011).

These studies have shown that resilience is an important contributing factor in determining new teacher retention. By putting in place practices to support new teachers within the school ecology, other professionals in the field may have the opportunity to influence new teacher resilience and retention.

A New Model of Professional Development

The continuum of care model was first developed in the medical profession to track patient care over time. Evashwick (2007) defined a continuum of care for the field of medicine as a client-oriented, comprehensive, coordinated system of services and mechanisms used to guide and monitor patient care to meet their needs efficiently and effectively. For the nursing profession, the continuum of care was more narrowly defined to include "mechanisms for organizing those services and operating them as an integrated system" (Donahue, M., & American Organization of Nurse Executives, 1998, p. 1). Care of an individual patient and care

delivered over time distinguished this model from other healthcare models and set guidelines for measurement (Haggerty et al., 2003).

The Healthcare Continuum of Care used a participatory model to engage patients across the continuum of care by integrating social media and technology for communication and patient engagement (Nicholson, 2013). Under this continuum of care model, nurses implemented a standard set of practices based on patient needs and conditions. The ideal continuum took a holistic approach, emphasizing wellness to give clients access to services at point of need (Evashwick, 2005).

Professional development of new teachers as a way to provide support as they enter the profession takes many forms, including mentoring and collaboration in a collegial community of practice. Collaboration, defined here as working together to create a space for shared idea generation, analysis and reflection, allows for participation as equals in planning, reflecting, and problem-solving (Lipton & Wellman, 2003). School librarians are in a unique position to offer this mentoring and collaboration as they have better access to more resources than other professionals in the building and are well-versed in connecting patrons to resources. The conceptual framework for this dissertation represents a new model of professional development for new teachers, which combines mentoring and collaboration into a Continuum of Care by school librarians for new teachers.

When supporting new teachers, the National Center for Education Statistics data suggest that mentoring does make a difference (Gray & Taie, 2015). These data show that beginning with the 2007-2008 study, in each successive year those teachers assigned a first-year mentor remained in the profession at a higher rate than those not assigned a first year mentor (see Table

4), 92% and 84%, respectively in the first year and 86% and 71%, respectively, four years later (Gray & Taie, 2015).

Table 4. Percent Attrition Beginning Teachers Starting 2007-2008 (1st Year)

<u>Year</u>	Attrition	
	<u>Assigned First Year Mentor</u>	<u>Not Assigned First Year Mentor</u>
2008-2009 (2nd year)	8.4%	16.4%
2009-2010 (3 rd year)	9.5%	23.0%
2010-2011 (4 th year)	12.0%	27.2%
2011-2012 (5 th year)	14.5%	28.6%

*Data from Gray & Taie, 2015, p. 7

Mentoring

Mentoring, defined here as personal guidance provided by seasoned veterans to beginning teachers in schools (Smith & Ingersoll, 2004), is a responsibility of every professional in the educational setting (Kent, Green, & Feldman, 2012). Concern about the problems faced by new teachers and subsequent high attrition rates has fueled the implementation of mentoring programs as a strategy to ease transition to the school setting and improve retention rates (Evertson & Smithey, 2000). Developing teacher leaders who have the disposition to mentor must be emphasized for new teacher success and retention (Kent, Green, & Feldman). This mentoring and collegial support through planning and collaboration with other teachers may serve to reduce high attrition rates (Beltman et al., 2011; Smith & Ingersoll, 2004).

Traditionally, mentoring has been used as professional development practice for new teachers. Mentoring is an effective method for guiding new teachers through the process of socialization and fit between the individual and the organization (Landy & Conte, 2004). Kemmis, Heikkinen, Fransson, Aspfors, and Edwards-Groves (2014) identified three archetypes of mentoring, determining that how mentoring was understood and enacted created different types of social relationships between new teachers and others in the profession. The archetypes of supervision involved surveillance of the new teacher passing through a probationary period, traditional mentoring as autocratic support with a more experienced teacher assisting a mentee, and democratic, collaborative self-development where professional growth was achieved through collegial mentoring (Kemmis et al., 2014). Greenberg (2002) recognized four stages of the mentoring relationship, which may last five years or beyond. The first year of mentoring consists of an initiation stage in which the relationship gets started, moving to a cultivation stage in which the bond develops. In the later separation stage, mentees went out on their own and redefined their relationship as a friendship of equals (Greenberg, 2002).

Marcoux (2007) contended that new teachers in a supportive mentoring relationship were empowered to make mistakes which may launch them into alternative, and perhaps better, teaching. Since relationships that empower human agency are at the core of resilience, the relationships that new teachers build in their first year may influence their commitment and intent to remain in the profession.

In an experimental field study, Evertson and Smithey (2000) compared protégés of a treatment group of mentors who participated in a mentoring workshop to protégés of comparison mentors who did not receive mentor training. They found that protégés of the mentor treatment group more effectively organized and managed instruction and established more workable

classroom routines. Their content model for mentor workshops focused on the mentoring role, assisting the beginning teacher with critical tasks of teaching, the process of mentoring, and developing action plans. Mentor's knowledge and skills of strategies and a common vocabulary for mentoring were crucial to enabling new teachers to succeed in their entry year (Evertson & Smithey, 2000).

Burke, Aubusson, Schuck, Buchannan, and Prescott (2015) used a discrete choice experimental approach to produce best-worst case scaling of the value placed on different types of support by new teachers, finding that both "leavers" and "stayers" welcomed formal and informal collaboration and opportunities to exchange resources with their colleagues (Burke et al., 2015). In other areas, however, leavers and stayers differed in their preferences for support (Burke et al., 2015). Leavers placed greater value on shared resources, cooperative teaching and planning, mentor discussions of classroom management and programming, and establishing professional voice, while stayers appreciated experienced teacher observation and conversations about teaching, highlighting the importance of recognizing these group preferences when developing support mechanisms (Burke et al., 2015). Factors that contributed to retention of beginning teachers included providing an environment of collegiality, collaboration, and support (Burke, Schuck, Aubusson, Buchanan, Louviere, & Prescott, 2013).

Mentors advise and shepherd new teachers through their first year, with the mentor who has more power, status, and expertise willingly using available resources to develop the mentee (Muchinsky, 2006). Applied to a school culture, the relatively small power differential between the teacher and the school librarian in this district, because they work under the same teacher contract, makes mentoring a compatible form of professional development. Thus, the objective of school librarian-new teacher mentoring is to lessen this power differential to the point that the

mentor/mentee become equal as peers, forming a truly collaborative partnership of practice. This form of mentoring program which stresses peer mentoring collaborations over traditional and hierarchical program styles, encourages mentor participation (Neyer & Yelinek, 2011).

Since librarians work with the entire faculty, they are in a unique position to offer mentoring within and outside their own subject field. By providing extra support to incoming faculty who are not in their own department, school librarians who mentor new teachers may affect the social climate of the school.

Collaboration

Mentoring may be considered in many ways an initial stage of collaboration for new teachers. As the profession of school librarianship has grown, the role of the school librarian has developed from merely a consultant to a true collaborator, who is embedded in the school culture within and outside the library. Information Power (AASL & AECT, 1988) described the school librarian role as instructional consultant to teachers. Responsibilities of the school librarian were described as participating in curriculum design and assessment, helping teachers develop instruction, providing expertise, and translating curriculum into the library program (AASL & AECT, 1988). The first Information Power did not mention collaboration as part of the school librarian's role. Information Power II (AASL & AECT, 1998), however, brought collaboration and teaching to the forefront of the school library program. School library standards in place at the start of this study, *Empowering Learners* (AASL, 2009), ranked the role of instructional partner as third for "now", ratcheting up to rank first for the "future" (AASL, 2009, p. 16).

Turner and Riedling (2003) promoted the role of the school librarian as instructional consultant to plan and develop units of study in collaboration with teachers on four levels to help teachers teach. At the lowest level of no involvement, the school librarian serves no role in teacher effectiveness. At the initial level the school librarian who “selects and maintains materials, equipment, and facilities” (Turner & Riedling, 2003, p. 19) to assist the teaching faculty, while the moderate level involves limited interaction between the teacher and school librarian. At the highest level, in-depth interventions by the school librarian with one or more teachers results in considerable guidance as a member of the instructional team. This leveled approach was designed to “ease the tension between instructional design consultation...and the real world of school library media practice...for effective teaching and enhanced learning” (Turner & Riedling, p. 21).

True collaboration, defined as “a working relationship over a relatively long period of time” (AASL, 1996, p. 2), should not be confused with informal cooperation or more formal coordination (AASL, 1996). Rather, true collaboration “applies the principles of instructional design to develop, implement, evaluate, and revise instruction that meets students’ learning needs (AASL, 1998, p. 64).

Loertscher (2000) developed a model of collaboration using specific interventions in which the school librarian meets with teachers, departments, and grade level teams to plan, execute, and evaluate resource-based instruction. Marcoux (2007) developed a tool to evaluate levels of collaboration on a grid, with types of collaboration ranging from isolation and consumption, to connection and cooperation, and finally coordination and ultimate coordination. Her tool included these types of collaboration alongside the environment, mentoring characteristics, process and structure, communication, purpose, and resources (Marcoux, 2007).

Based on the Loertscher model, Montiel-Overall (2008) developed the Teacher and Librarian Collaboration Model (see Figure 4) in which teachers and librarians work together on activities ranging from low to high collaborative endeavors. This construction of collaborative partnerships through collaboration with classroom teachers to design, implement, and evaluate lessons is an important role of the school librarian (AASL, 2009). Montiel-Overall (2010) conceptualized the process of school librarian-teacher collaboration as developing over three phases. The beginning phase, which is a prerequisite to collaboration, is identified by acceptance of a common interest and commitment to participation. Next, the relationship phase built a bond and created a sense of community between collaborators. Passing through these first two phases were necessary to entering the productive phase of deep thinking, the highest level of collaboration (Montiel-Overall, 2010).

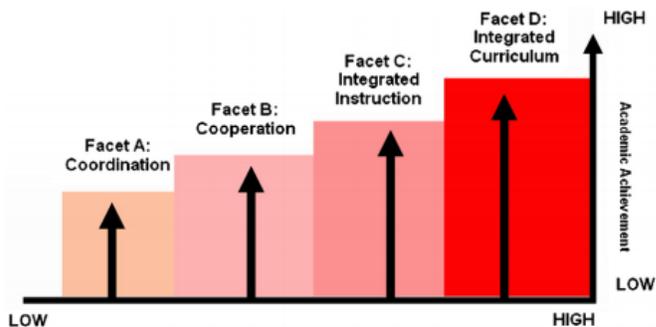


Figure 4. Montiel-Overall Teacher and Librarian Collaboration Model

(Montiel-Overall, 2008, p. 190)

Forming these collaborative partnerships with teachers and other educators is a basic tenet of the role of the school librarian (AASL 1988; 1998; 2009). Cultivating the collaborative relationship for teaching requires time and nurturing (AASL, 1996). *Empowering Learners*

(AASL, 2009) offers generalized guidelines for promoting collaborative partnerships and relationships among members of the learning community and leadership from a peer level. School library program guidelines identify building partnerships of teaching for learning which “promote collaboration among members of the learning community” (AASL, 2009, p. 19) and recommend that we “model leadership and best practice for the school community” (AASL, 2009, p. 45).

Mentoring can be a means to establish the partnerships that result in collaboration. The Project on the Next Generation of Teachers, found that new teachers reported more satisfaction, higher self-efficacy, and showed greater retention when engaged in a collaborative relationship with experienced colleagues (Allensworth, 2012; Johnson, 2009). Lipton & Wellman (2003) described mentoring as a continuum of interaction, with mentors flexing between consulting, collaborating, and coaching roles to enhance the mentees’ capacity to engage in productive collaborative relationships.

Mentoring may be seen as a springboard toward collaboration (Trees, 2016) and the combination of the two may be the process with resilience as the product. One study examined the dynamics of mentoring and subsequent collaborations among mental health scholars and faculty. (Luke, Baumann, Carothers, Landsverk, & Proctor, 2016). The researchers evaluated mentoring and subsequent collaborations in new research, grant submissions, and publication. They were able to demonstrate that mentoring was strongly and significantly related to future collaboration (Luke et al. 2016).

Mentoring which cultivates professional growth and fosters collaboration (Pitton, 2006) has a positive influence on new teacher retention (Harris, 2015). Pitton (2006) described mentoring as a social relationship, in which new teachers should be provided with opportunities

to learn collaboratively (Howard, 2006; Lipton & Wellman, 2003). By adopting a collaborative stance in the mentoring relationship, mutual respect moves forward the expectation of a collegial relationship. Thus mentoring may be used as a means toward collaborative practice resulting in mutual generation of information (Lipton & Wellman, 2003).

While integrating technology into the classroom environment may represent a goal for librarians, collaborative partnerships on broad topics which foster a collegial atmosphere and build trust and credibility was found to be the key to peer mentoring among academic faculty (Livingston, 2003). Hickel (2006) argued that new teachers appreciate help and may become more likely to contact library staff habitually when a collaborative formula of persistence, patience, and optimism has been set in place. This partnership of mentoring toward collaboration may be embodied in a Continuum of Care for new teachers by school librarians.

Mentoring and collaboration may be combined to form a new model of professional development. Models of professional development for new teachers support individual educators as they draw sustenance from their environments and grow in their career (Joyce & Calhoun, 2010). As these individuals learn, they have more to share as they establish their instructional repertoires (Joyce & Calhoun, 2010). When independent groups in the school share collaboratively, their collective knowledge may overlap so group members can learn from each other's practice (Joyce & Calhoun, 2010). Such professional learning communities provide an arena within the school for reflective practice, communities of practice, and inquiry as collegial conversation leads educators to develop shared mental maps which can then be applied to their work (Martin, Kragler, Quatroche, & Bauserman, 2014). Wenger (1998) described this collective learning and attendant social relations as a community of practice.

Professional development for school librarians serving as interventionists for teachers needs to assure that productive change will take place (Joyce & Calhoun, 2010). Training should provide knowledge, skill, and preparation for any new initiative, and should include elements of demonstrations, presentations, preparation, and implementation spread out over several months with opportunities for peer coaching groups to meet and discuss support implementation at the school level (Joyce & Calhoun, 2010). Effective professional development is instructive, reflective, engaging, collaborative, and substantive (Martin et al., 2014). Supporting this professional growth with external resources, such as grants and professional organizations may be an efficient and effective way to build district-level capacity to implement a new initiative. Professional development utilizing external resources must be carefully aligned with district initiatives, consistent with district messages and practices, planned for sustainability, and evaluated for effectiveness to ensure professional growth for educators and positive outcomes for students (Martin et al., 2014).

Some librarians have recognized the need to support new teachers, but the field has yet to develop a model of best practice to provide this support over time. Welcoming newly hired teachers as a professional gesture of collegial support is an important role played by the school librarian, opening doors to collaboration for effective teaching, (Morris, 2015). The social connection of new teachers to the school librarians has been singled out as special because the school librarian has access to many resources and is in a position to engage in supporting new teachers. Urging by colleagues for new teachers to visit the librarian as soon as possible evidenced the importance of new teachers being initiated into the schools' collaborative culture through communication with the librarian at the beginning of the year (Montiel-Overall, 2008). The importance of welcoming new teachers to the school library continues to be a recurring

theme in the literature, and targeted interventions performed by the school librarian may serve as protective factors which promote new teacher resilience. However, the relationship between the school librarian and the new teacher exists, at the start of the school year, in a state of imbalance. Recommended actions by the school librarian promote new teacher efficacy (Corrick & Amos, 2000; Hartzell, 2003) on a continuum of collaboration from support to intervention (Loertscher, 2000). The new teacher as a special population, “desperate for help and ideas” (Andronik, 2003, p. 45) warranted instruction in using the school library for planning, teaching, learning, presenting, and reading (Emery, 2008) and in collaboration (Freeman, 2014). For partners who are not familiar with each other’s work, or who are inexperienced in the collaborative process, a “one designs, one teaches” model may be an easy first step with the school librarian as a proactive initiator (Kowalsky, 2014, p.113). As partners become more familiar with each other, they may move to a “both design, both teach” model where lesson design, execution, and assessment are shared responsibilities (Kowalsky, 2014, p.114).

Both Lipton and Wellman (2003) and Loertscher (2000) described the collaborative stance in the context of mentoring and school librarian collaboration, respectively. Lipton and Wellman (2003) identified a continuum of learning-focused interactions of skilled mentors who flex between consulting, collaborating, and coaching stances. Loertscher (2000) drew together two continuums of educators’ roles when building a collaborative stance. He saw the collaborative process of the school librarian as ranging from support to intervention, while the teaching styles evident in the classroom ranged from behaviorist to constructivist (Loertscher, 2000). Integrating these two collaborative stances into one model of mentoring toward collaboration resulted in the development of a Continuum of Care by school librarians for new teachers to increase their resilience and to improve retention.

Practitioner research offers an evidence-based framework for professional development and opportunity for classroom teachers and school librarians to engage in sustained collaboration with the aim of disrupting existing power structures to challenge inequities in schools (Curwood, 2014). Curwood (2014) identified core features of professional development which included focus on a content area, hands-on active learning, alignment with professional experience, involvement with close colleagues, and duration throughout the school year (Curwood, 2014). New teachers in collaboration with the school librarian may at first engage in legitimate peripheral practice as they learn about practitioner research, moving toward a community of practice as the collaborative partnership develops (Curwood, 2014) on a Continuum of Care.

The continuum of care is, at heart, a series of interventions with a well-defined goal. Trees (2016) identified interventions used by top organizations under the one-on-one mentoring structure. For example, mentors were tasked with connecting their mentee to three other new professional contacts and participating in face-to-face social events with other mentor-mentee pairs (Trees, 2016). As an example of a model from the nursing profession, Tomlinson, Peden-McAlpine, and Sherman (2012) detailed the development of a family systems intervention designed to decrease family stress at the family-provider interface. They developed a family health systems model (see Figure 5) with an intervention protocol to operationalize policies of family centered care and promote family control. The four realms of the family health system converged, providing a platform for developing the intervention into nursing actions that could directly affect family stress (Tomlinson et al., 2012).

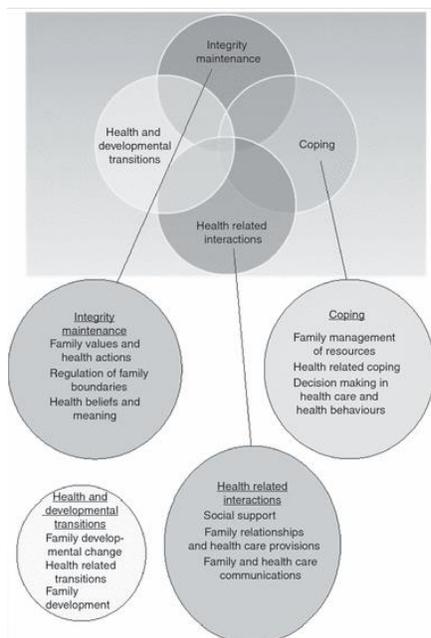


Figure 5. Family Systems Nursing Intervention Model for Paediatric Health Crisis

(Tomlinson et al., 2012, p. 708)

In a case study of pre-service classroom teachers, Moreillon (2008) used interventions to understand the influence on classroom-library collaboration in practice and to shed light on the supports and barriers to this partnership. Her pre-service interventions included deconstructing a classroom-library lesson plan and unit, a panel discussion of classroom teachers, school librarians, and principals, a simulation of a classroom teacher/school librarian planning session, and demonstration of the resulting co-taught lesson. Findings suggested that these interventions positively influenced later classroom-library collaboration. One way this classroom-library collaboration may be of service to new educators is the school librarian's opportunity to impact the practice of colleagues while improving their own practice (Moreillon, 2008).

Lipton and Wellman (2003) developed a calendar of mentoring activities correlated to the time of the school year, developmental phases of new teachers, and stages of concern of new teachers. A menu of interventions were offered per month, associated with the development of new teachers as they moved through the school year through feelings of anticipation to survival through disillusionment to rejuvenation and anticipation and with phases of concern from self to task to impact. The calendar guides the mentor through the school year and provides structured mentoring behaviors to be implemented over the course of the school year (Lipton & Wellman, 2003).

Interventions have been used to increase resilience and retention of new teachers. The Inner Resilience Program (Lantieri et al., 2011) used quantitative methods to investigate implementation of interventions to increase resilience of teachers. Participants were randomly assigned to treatment and control groups, with the treatment group receiving transformational professional development interventions to build resilience. Teachers completed a battery of surveys in the fall and spring of the school year to determine participants' perceptions of self-wellness (Lantieri et al.). The Project on the Next Generation of Teachers found that new teachers reported more satisfaction, higher self-efficacy, and showed greater retention when engaged in a collaborative relationship with experienced colleagues (Allensworth, 2012; Johnson, 2009). Establishing a Continuum of Care as a series of interventions to promote resilience in new teachers may effect a change in the rates of burnout and attrition and increase resilience.

Causal Research in the Field of School Librarianship

In 2014, AASL held a forum to articulate “a national research agenda to investigate causal phenomena” in school libraries (AASL, 2014, p. 3). The forum was guided by Dr. Thomas Cook, an influential methodologist in education research. The result of this meeting was a white paper, *Causality: School Libraries and Student Success (CLASS)* which, in part, recommended a plan of action moving toward studies which use rigorous research designs (AASL, 2014; Little, 2015).

Both education and nursing share the problem that phenomena are often complex, and randomized control trials may not be feasible or ethical. Research in the field of nursing has undergone transformation, moving from correlational to causal studies (Costa & Yakusheva, 2016). These causal research methods used in the field of nursing may be applied to the field of school librarianship (Mardis et al., 2015). To study these complicated, real life situations it becomes necessary to engage in real world interventions with intended effects which “twist the lion’s tail” to develop a dimension of knowledge and find causal truths (Persson & Sahlin, 2009, p. 548). Practical study designs which strengthen causal inference are possible (Costa & Yakusheva, 2016).

Cook advocates for nonexperimental alternatives to randomized experiments “so that we have multiple arrows in our causal method quiver” (Cook, Scriven, Coryn, & Evergreen, 2010, p. 107). Under conditions in which randomized experiments are not feasible, a quasi-experimental design which includes manipulation of the independent variable and a comparison group may best approach causal modeling (Youngblut, 1994). One design suggested by Cook uses a comparison group that is geographically local and intact. This comparison group would be matched on pretest scores to the treatment group, leading to minimal differences on a highly

stable measure, and reducing hidden bias. This quasi-experimental design is appropriate in fields such as education that seek to bring about positive change (Cook et al., 2010).

The passage of the Every Student Succeeds Act (ESSA) brought forward support of innovations developed by local leaders and educators, including evidence-based interventions (ESSA, 2018). ESSA made more evident the need to create a foundation for causal research in school libraries and school librarianship. As a result, the U.S. Department of Education released guidelines which describe study designs meeting a range of levels of evidence for effective educational studies (Mardis et al., 2018). AASL has put in place a process to advance the field of causal research by codifying theory, testing best practices, and measuring impact of school librarians and school library programs (Soulen, 2016). The original ideas developed at the first CLASS forum have since been implemented in the CLASS II: Field Studies using the top two tiers of the ESSA levels of evidence. These include strong studies using randomized control trials and moderate studies using quasi-experimental designs (Mardis et al., 2015).

Conclusion

The literature shows that resilience can be nurtured in the working lives of teachers, and that stress management and coping skills can be taught to increase teacher resilience (Lantieri et al., 2011). For teachers just entering the profession, practices which promote resilience can be put in place to support them as they face the many challenges of the classroom. Other, more experienced professionals, including the school librarian, may provide this support through building a collaborative partnership. Causal research methods being tested may show how to best plan, implement, and measure the work being done in school libraries.

There exists no research exploring the relationship between new teacher resilience and the role of the school librarian in caring for new teachers. The above related studies of teacher mentoring and teacher-librarian collaboration shed some light on topics of mentoring and collaboration. However, while the field of school libraries does emphasize the collaborative partnership of shared expertise between the teacher and the school librarian, the disposition toward new teachers is different. Providing a Continuum of Care for new teachers would clarify the role of the school librarian in building new teacher resilience and retention and bring forward an equal, balanced, truly collaborative partnership.

Several questions arise in developing this Continuum of Care for new teachers. First, how is working with new teachers different than working with more experienced teachers for the school librarian? Research into the mentoring role of the school librarian toward new teachers may provide a basis for developing a closer association between these educators. Secondly, how does mentoring combine with collaboration in the school librarian-new teacher pairing? Study of the intersection of mentoring with collaboration to develop new teacher resilience and retention is an important area of interest. Thirdly, how can school librarians provide a Continuum of Care to best develop the collaborative partnership between the school librarian and new teacher? This study proposes to determine the effectiveness of implementing a Continuum of Care by school librarians for new teachers to build the resilience necessary to survive and thrive as classroom teachers and to promote retention.

This chapter has reviewed the literature related to the theory of resilience as applied to the educational setting by way of burnout, attrition, and resilience of teachers, models of mentoring and collaboration, and interventions for developing a continuum of care for new

teachers. In the next chapter, the research methodology for this study of a continuum of care by school librarians is delineated.

CHAPTER III METHODOLOGY

This chapter reviews the methodology of the study, beginning with the research questions, followed by the model to be tested, the population, sample, and setting, and a description of the interventionists. The three phases of the study are then defined. Data collection procedures, both formal and formative, are delineated. Next, the interventions used in the study are described. Chapter III concludes with an explanation of the methods used for data analysis, as well as assumptions, limitations, and delimitations.

This study used a Continuum of Care model to provide interventions by school librarians for new teachers. The interventions were intended to increase resilience of new teachers, and in turn increase retention. Initially centering on mentoring, the interventions moved toward collaboration over a four-month period. This study used a pre-test/post-test and a quasi-experimental matched sample design to measure resilience and retention of new teachers. Quantitative data were collected at the initiation of the study and after the termination of the interventions. Patterns identified through the quantitative data were supported by qualitative data to further explain the meaning behind these patterns.

Research Questions

Four research questions guided this study. The first two focus on new teacher resilience. The third and fourth research questions center on new teacher burnout and retention, respectively.

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

H1: New teachers who receive standardized interventions from the school librarian significantly increase their scores on a resilience scale from October to March of a school year.

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

H2: New teachers who receive standardized interventions from the school librarian demonstrate significantly higher scores on a resilience scale in March of a school year as compared to new teachers who do not receive these interventions.

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

H3: New teachers who receive standardized interventions from the school librarian demonstrate significantly lower scores on a burnout inventory in March of a school year as compared to new teachers who do not receive these interventions.

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

H4: New teachers who receive standardized interventions from the school librarian are significantly more likely to intend to return to their current teaching position as compared to new teachers who do not receive these interventions.

The Continuum of Care:

School Librarian Interventions for New Teacher Resilience

This study tested the Continuum of Care Model of School Librarian Interventions for New Teacher Resilience (see Figure 6), which merged a continuum of care model used in the field of medicine (Nicholson, 2013) with the Teacher and Librarian Collaboration Model (Montiel-Overall, 2008) used in the field of school libraries. In the Continuum of Care model implemented in this study, the school librarians provided interventions for new teachers over a four-month period. The interventions were book-ended by a measure to determine levels of resilience of new teachers and followed by measures to determine levels of mentoring/collaboration and levels of new teacher burnout and retention.

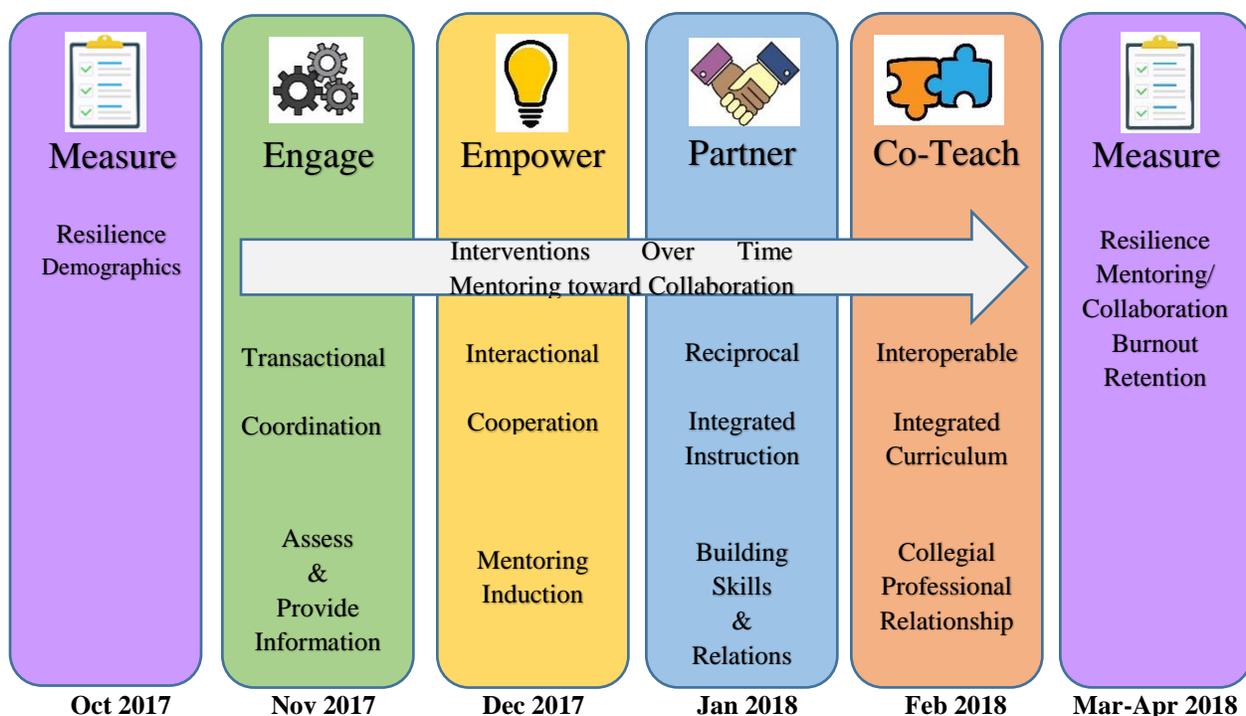


Figure 6. Continuum of Care Model of School Librarian Interventions for New Teacher Resilience

Each of the four months of interventions was guided by a theme. In the first half of the interventions, the school librarians served in a mentoring role. In the second half of the interventions, the role of the school librarian turned toward a more collaborative stance. The aim of the interventions was first to engage the new teachers by assessing and providing information, then to empower them through mentoring and induction activities. Later interventions were meant to partner with the new teachers to build skills and relations, and finally co-teach as collegial partners. Interventions were laid out on a prescribed calendar from October to February of one school year. This calendar of interventions also developed the collaborative relationship in accordance with the Montiel-Overall model of collaboration. The ultimate goal of these interventions was to increase resilience of new teachers, and in turn improve retention. Figure 7 lays out the Continuum of Care model in more detail, which will be discussed throughout the rest of this chapter.

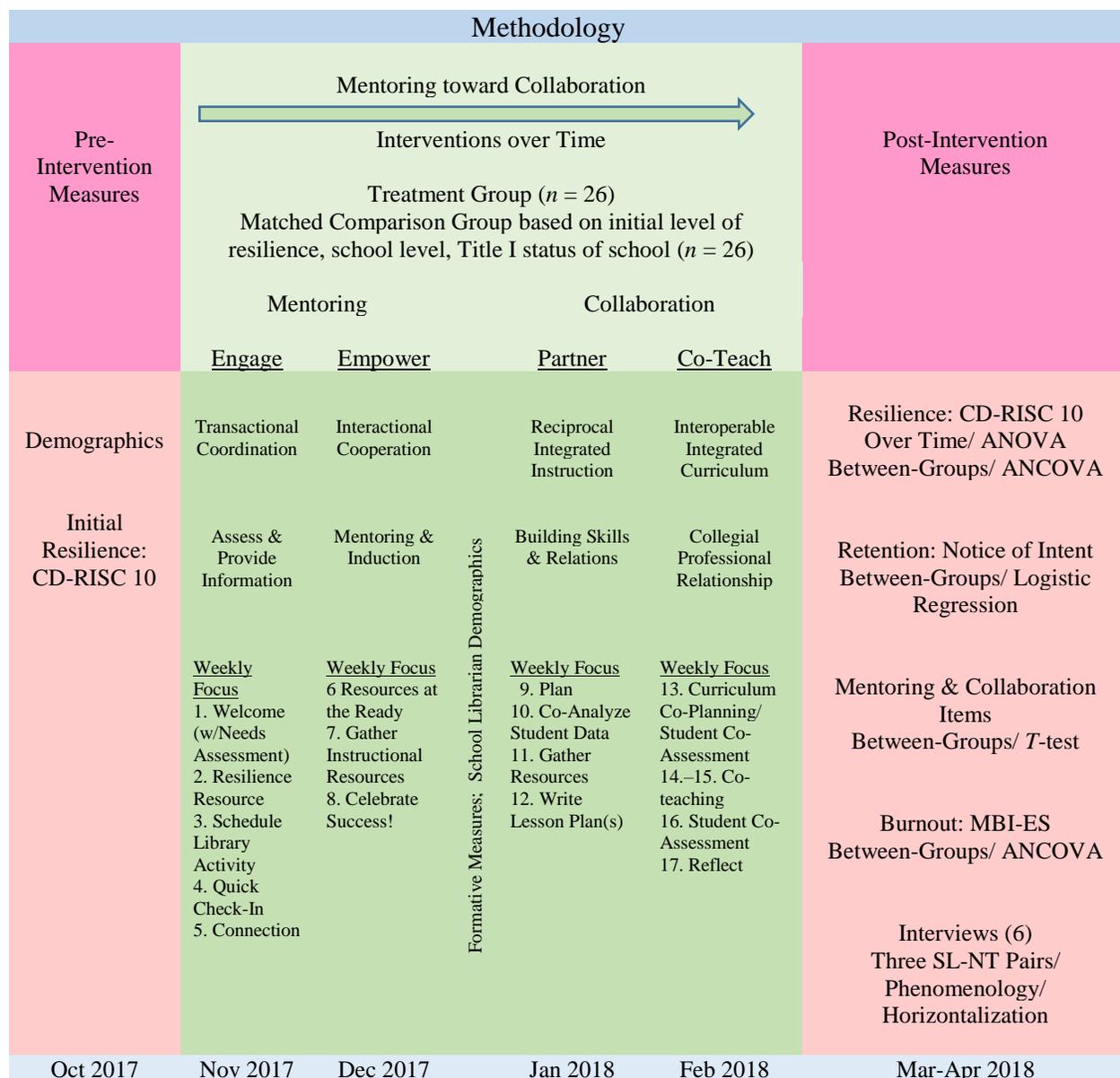


Figure 7. School Librarian Interventions for New Teacher Resilience

Population, Setting, and Sample

The population under study was new teachers, defined as teachers in their first year of full-time contracted work in a teaching position. This study took place in fourteen K-12 schools in an urban school district in the mid-Atlantic United States. According to the National Center for Education Statistics (National Center for Education Statistics, 2018) in school year 2016-2017 this district employed approximately 2,300 teachers for 32,000 students. Of these, 42 were library media specialists, also known as school librarians. Of the 52 schools grades PreK-12 in the district, 34 were designated Title I (Early Learning and Title I, 2018).

School Librarian Interventionists

Fifteen school librarians were recruited through the district Office of Media Services by inviting volunteers. Demographic data (see Table 5) were collected for school librarian characteristics to describe the interventionists. A Qualtrics questionnaire was disseminated via district email in January 2018 to the school librarians serving as interventionists. Responses were stored in a password protected file. Demographic questions included highest educational attainment, teaching certification(s), number of years of teaching experience including library, number of years of experience as a school librarian, school level, gender, age, and race.

Table 5. Demographic Composition of School Librarian Sample

<u>Demographic Variable</u>	<u>School Librarians</u>	
	<u>N = 15</u>	<u>Total (%)</u>
School Level		
PreK-5	6	40.0
PreK-8	2	13.3
3-8	1	6.6
6-8	2	13.3
9-12	4	26.7
Employed Full-time	15	100.0
Certified School Librarian	15	100.0
Additional Certifications		
English	4	26.7
Public Speaking	1	6.7
PreK-4	1	6.7
PreK-6	3	20.0
PreK-8	1	6.7
Middle Grades 4-8	2	13.3
Special Education	1	6.7
Gifted Education	1	6.7
Highest Education Attainment		
B.A. or B.S.	1	6.7
Masters' degree(s)	12	80.0
MLIS	1	6.7
PhD, Md, EdD, or JD	1	6.7
Years of Teaching Experience		
0-5	1	6.7
6-10	1	6.7
11-15	3	20.0
16-20	4	26.7
21-25	3	20.0
26+	3	20.0
Years of Experience School Library		
0-5	4	26.7
6-10	3	20.0
11-15	6	40.0
16-20	2	13.3
21-25	0	0.0
26+	0	0.0
Gender		
Female	14	93.3
Male	0	0.0
Do not wish to disclose	1	6.7
Age in Years		
20-29	0	0.0
30-39	1	6.7
40-49	9	60.0
50-59	3	20.0
60+	2	13.3

Table 5. (continued)

Race	<u>Demographic Variable</u>	<u>School Librarians</u>	
		<u>N = 15</u>	<u>Total (%)</u>
	African American/Black	5	33.3
	Asian	0	0.0
	Caucasian/White	10	66.7
	Native American	0	0.0

These librarians who agreed to serve as interventionists for this study worked in 14 schools, as two (13%) of the librarians worked in the same high school. Six (40%) worked in elementary schools (PreK-5), two (13%) in PreK-8, one (7%) in 3-8, two (13%) in middle schools (6-8) and four (27%) were in high schools (9-12). Of these 14 schools, ten were Title I schools whose students benefit from supplemental funding through specific interventions, additional resources, and professional development due to low socioeconomic demographics (Early Learning and Title I, 2018).

For the purpose of this study, all school librarians who served as interventionists were required to be full-time and certified according to state standards and have at least three years of experience as either a school librarian or a teacher. Several of the librarians had multiple additional certifications, including English, Public Speaking, PreK-4, PreK-6, PreK-8, Middle Grades 4-8, Special Education, and Gifted Education. All of the school librarians had a least a four year university degree. Eighty percent had earned a master's degree as their highest educational attainment. Two (13%) had attained a terminal degree. All had teaching experience, with 87% having ten or more years in the classroom. Experience in the school library varied from 0-5 years to 16-20 years.

All of the school librarians were female, except one who chose to not disclose gender. All were at least 30 years of age, with eighty percent being between 40 and 59 years. All were either African American/Black, or Caucasian, with the majority (67%) being Caucasian.

Structured training and support of the mentors is an important building block of a successful mentoring program (Evertson & Smithey, 2000; Lorenzetti & Powelson, 2015). For this reason, a professional development session for the school librarians who served as interventionists was administered in October 2017 by the researcher. The purpose of this professional development was to train the school librarians as interventionists. The research questions, purpose of the study, and measures to be used were reviewed. The researcher discussed the interventions, and gave directions for implementation, then discussed the “housekeeping” aspects of the study, such as stipends and drawings. At the end of the meeting the researcher was available to answer questions and the interventionists signed the mentoring toward collaboration agreement (see Appendix D).

A second professional development session for the school librarians serving as interventionists was planned for January 2018, midway through the study. Unfortunately, winter weather caused disarray to the school calendar, resulting in the professional day being cancelled. However, communication between the researcher and the interventionists via email and telephone was ongoing throughout the study. A weekly email from the researcher to the school librarians served as a reminder and outlined the week’s interventions. Additional emails managed “housekeeping” items, such as requests that the interventionists remind the new teachers to complete the measures, announcements of incentive winners, and communications to motivate the librarians to continue with the interventions. Telephone conversations between the

researcher and interventionists provided opportunities to discuss how best to stay on track with the calendar.

Another important component of this study was motivation of the school librarians to continue interventions from November 2017 to February 2018. For this reason, a monetary award was provided to each school librarian implementing the interventions (Lorenzetti & Powelson, 2015). Each interventionist was awarded \$350 for providing interventions to one new teacher. A \$50 bonus was awarded for each additional new teacher. One librarian was also randomly selected to attend the American Library Association annual conference.

New Teachers

During preservice at the start of the 2017-2018 school year, 252 individuals signed in to the New Teacher Induction program, conducted by the Department of Professional Development (personal correspondence). These teachers ranged from 0 to 26+ years of experience. Some were first year teachers, some were long-term substitutes, others had moved to the area, some were retired teachers who were returning to fill empty positions. Of the attendees, 87 self-reported that they had 0 years of teaching experience. Additionally, as of September 30, 2017, the district's Department of Human Resources listed 261 faculty new to the district, including teachers, library media specialists, nurses, school psychologists, and other non-classroom positions (personal correspondence). These faculty represented both experienced and new to the field professionals. From these two lists, and with the assistance of school library media specialists and building level lead teacher mentors, the researcher was able to identify 133 teachers who were in their first year of teaching as of October 30, 2017. From this master list, the librarians serving as interventionists then recruited new teachers in their buildings to participate in the study.

The purpose of the October 2017 questionnaire was to establish the initial resilience level of the new teachers to match the comparison group to the treatment group, and to collect demographic information. This pre-test questionnaire consisted of the CD-RISC 10 plus nine demographic items. Also within this questionnaire, respondents created a personal identifier to track respondents anonymously between measures. This questionnaire was sent to 133 teachers in the district who had been identified as first year. Data were collected in two groups, the treatment group and those new teachers not in the treatment group. There were 105 total responses, a 79% response rate. However, several teachers responded multiple times to the questionnaire, and some responses were not from new teachers according to the parameters of this study.

Overall New Teacher Demographics

After removing responses from individuals who responded multiple times and those who did not fit within the parameters of the study, there were eighty new teachers' responses to the October 2017 questionnaire (see Table 6). Of these, 95% reported being in their first contract year. Four of the new teachers who responded to the October questionnaire indicated that they were not in their first contract year. The researcher was able to ascertain that all new teachers in the treatment group were first year. However, due to the anonymity of the questionnaire, it was not possible to ascertain the actual experience level of other respondents, who may have had some teaching experience in a capacity which did not fit the parameters of this study. Seventy six percent of respondents reported that their school received Title I support. Respondents were fairly well distributed across school levels, with 23% teaching in grades K-2, 20% in grades 3-5, 35% in grades 6-8, and 23% in grades 9-12.

Table 6. Demographic Composition of October 2017 New Teacher Questionnaire Respondents

<u>Demographic Variable</u>	<u>N = 80</u>	<u>New Teachers</u>
		<u>Total (%)</u>
First Contract Year		
Yes	76	95.0
No	4	5.0
Title I		
Yes	61	76.3
No	19	23.8
Grade Level		
K-2	18	22.5
3-5	16	20.0
6-8	28	35.0
9-12	18	22.5
Certified in Subject Area		
Yes	62	77.5
No	18	22.5
Subject Area		
English/Language Arts	18	22.5
Foreign Language	1	1.3
Health/Physical Education	2	2.5
Mathematics	6	7.5
Music/Art	5	6.3
Science	10	12.5
Social Studies	3	3.8
Special Education	14	17.5
Technology	1	1.3
School Counselor	1	1.3
Other Academic	16	20.0
Other Elective	3	3.8
Highest Education Attainment		
B.A. or B.S.	38	37.5
Masters' degree(s)	41	51.2
PhD, Md, EdD, or JD	1	1.3
Gender		
Female	67	83.8
Male	12	15.0
Do not wish to disclose	1	1.3
Age in Years		
20-29	44	55.0
30-39	21	26.3
40-49	12	15.0
50-59	3	3.8
60+	0	0.0

Table 6. (Continued)

<u>Demographic Variable</u>	<u>N = 80</u>	<u>New Teachers</u>
		<u>Total (%)</u>
Race		
African American/Black	28	35.0
Asian	3	3.8
Caucasian/White	44	55.0
Native American	0	0.0
Other		
(African American/Black and Caucasian/White)	3	3.8
(Mixed)	1	1.3

The demographic data collected for teacher characteristics included highest educational attainment, subject area certification, grade level, subject area, Title I status of the school, gender, age, and race. Seventy-eight percent of respondents were certified in the subject area they taught. Forty-eight percent taught in the core content areas. Fifteen percent of respondents indicated by open-ended response that they taught all subjects or elementary education. Seven (9%) respondents taught electives, while 2 (3%) taught health and physical education. Eighteen percent were special education teachers. Other reported academic areas included Naval Science, Preschool, Special Education, and Speech Therapy. Other electives included Economics and Personal Finance, Family and Consumer Sciences, and Social Skills. Most respondents (51%) had earned a Master's degree. Thirty-eight percent had earned a Bachelor of Arts or Science as their highest level of educational attainment, with only one percent having attained a terminal degree.

Women were by far more strongly represented (84%) than men, with one new teacher choosing not to disclose gender. The new teachers tended to be younger than the school

librarians, with the majority (55%) being 20-29 years old and the oldest (4%) being 50-59 years old. Like the librarians, almost all were either African American/Black (35%), or Caucasian (55%), or mixed African American Black and Caucasian/White (4%), with three (4%) new teachers identifying as Asian (4%) and one as unidentified mixed race.

The 80 new teachers who responded to the October 2017 questionnaire were overall older, reflected more racial diversity, and were more female than expected. Sixty five percent of these new teachers were more than 30 years of age as compared to National Center for Education Statistics data which indicate that 29% of first year teachers nationwide in 2007-2008 were more than 30 years of age. New teachers who responded to the questionnaire were more racially diverse (45% African American/Black, Asian, or mixed), when compared to national data (22% not Caucasian/white). There were more than expected new teachers who were female. Eighty four percent of new teachers in this district were female, compared to 75% nationally. The new teachers were more educated than the national average. Fifty one percent held a master's degree, compared to 18% nationally (Raue & Gray, 2015).

Treatment and Comparison Group Demographics

There were 33 responses to the questionnaire for the treatment group. Using the personal identifier, the researcher was able to determine that five teachers completed the questionnaire more than one time. In order to use data entered closest to the beginning of the school year, the data entered first were retained. One teacher, who was not a new teacher in the first contract year, was removed from the intervention population. This reduced the number of valid responses for the treatment group to $n = 27$. Of these 27 valid cases, 25 replied to the first demographic question confirming that they were in the first contract year of teaching. However, the researcher

was able to independently verify via the school librarians and their principals that all 27 cases were, indeed, in the first contract year of teaching (personal correspondence). One new teacher in the treatment group did not complete the October questionnaire. Therefore, the analysis sample size used for the treatment group was $n = 26$.

Twenty-three of these new teachers in the treatment group reported that they taught in a Title I school. However, the researcher was able to independently verify that 21 of these new teachers (81%) in the treatment group actually taught in schools which received Title I funding.

The setting of the 26 cases in the treatment group was nearly equally divided across grade levels (see Table 7). Twenty new teachers (77%) were certified in the subject area in which they were currently teaching. Seven (27%) taught English/Language Arts, six (23%) taught Science, three (12%) taught Special Education, one (4%) taught Mathematics, and one (4%) taught Music/Art. Six (23%) respondents also reported teaching in another academic area, including teachers of multiple subjects. Additionally, two (8%) respondents reported teaching in other elective areas. Of these 26 new teachers, 10 (39%) reported that they had earned a Bachelor of Arts or Science degree, while 16 (67%) had attained a Masters' degree.

Table 7. Demographic Composition of Treatment and Comparison Groups

<u>Demographic Variable</u>	<u>Treatment</u>		<u>Comparison</u>	
	<u>n =26</u>	<u>Total (%)</u>	<u>n =26</u>	<u>Total (%)</u>
Title I School				
Yes	21	80.8	22	84.6
No	5	19.2	4	15.4
Grade Level				
K-2	7	26.9	5	19.2
3-5	6	23.1	5	19.2
6-8	7	26.9	7	26.9
9-12	6	23.1	9	34.6
Subject Certified				
Yes	20	76.9	20	76.9
No	6	23.1	6	23.1
Subject Areas				
English/Language Arts	7	26.9	5	19.2
Foreign Language	0	0.0	1	3.8
Health/Physical Education	0	0.0	2	7.7
Mathematics	1	3.8	1	3.8
Music/Art	1	3.8	2	7.7
School Counselor	0	0.0	1	3.8
Science	6	23.1	3	11.5
Social Studies	0	0.0	1	3.8
Special Education	3	11.5	6	23.1
Technology	0	0.0	1	3.8
Other Academic				
(Multiple Subjects)	6	23.1	1	3.8
(Naval Science)	0	0.0	1	3.8
(Preschool)	0	0.0	1	3.8
Other Elective				
(Economics and Personal Finance)	1	3.8	0	0.0
(Social Skills)	1	3.8	0	0.0
Highest Education Attainment				
B.A. or B.S.	10	38.5	14	53.8
Masters' degree(s)	16	61.5	12	46.2
PhD, Md, EdD, or JD	0	0.0	0	0.0
Gender				
Female	25	96.2	18	69.2
Male	1	3.8	7	26.9
Do not wish to disclose	0	0.0	1	3.8
Age in Years				
20-29	16	61.5	12	46.2
30-39	6	23.1	8	30.8
40-49	3	11.5	5	19.2
50-59	1	3.8	1	3.8
60+	0	0.0	0	0.0

Table 7. (Continued)

Race	<u>Demographic Variable</u>	<u>Treatment</u>		<u>Comparison</u>	
		<i>n</i> =26	Total (%)	<i>n</i> =26	Total (%)
	African American/Black	11	42.3	10	38.5
	Asian	0	0.0	0	0.0
	Caucasian/White	14	53.8	14	53.8
	Native American	0	0.0	0	0.0
	Other				
	(African American/Black and Caucasian/White)	1	3.8	1	3.8
	(Mixed)	0	0.0	1	3.8

One (4%) new teacher in the treatment group was male. Sixteen (62%) were 20 to 29 years old, six (23%) were 30 to 39 years, three (12%) were 40 to 49 years, and one (4%) was 50 to 59 years. The new teachers in the treatment group were composed of two races. Eleven (42%) were African American/Black, 14 (54%) were Caucasian/White, and one (4%) was black and white.

Overall Initial Resilience

The CD-RISC 10, which constituted the first ten questions of the October 2017 New Teacher Questionnaire, measures resilience on a scale of 0 to 40 by a simple sum of responses. The 80 new teachers who responded to the October 2017 questionnaire (see Table 8) ranged in scores from 18 to 40. These new teachers evidenced a mean resilience score of 30.8, *SD* = 4.98. This compares to a mean score of 31.78 (*SD* = 5.41) found in a broad study of 764 residents of metropolitan Memphis (Campbell-Sills et al., 2009) whose scores on the CD-RISC 10 ranged from 9 to 40. Similar results were also obtained in another population (*N* = 238) of women who

had been exposed/not exposed to breast cancer (Scali et al., 2012). In their sample the median score on the CD-RISC 10 was 27 (range 22–32), and scores were classified in three categories, ≤ 23 (low), 24-29 (medium), and ≥ 29 (high). Responses in the current study showed both negative skew (-0.40) and somewhat negative kurtosis (-0.15), far under the cautionary threshold of 0.7.

Table 8. Overall New Teacher Initial Resilience

<u>CD-RISC 10</u>	<u>N = 80</u>
Mean	30.75
Standard Deviation	4.98
Minimum	18.00
Maximum	40.00
Skewness	-0.397
	Std. Error 0.27
Kurtosis	-0.151
	Std. Error 0.532

A nearest neighbor matched sample of 26 new teachers was selected for the comparison group from those new teachers who completed the October 2017 questionnaire but were not in the treatment group. Initial resilience levels of the comparison group and the treatment group were used as the primary mechanism to define the matched sample.

Over the course of the study, formative data indicated that high school librarians had the faced greater barriers to implementing the treatment than did elementary and middle school librarians. The formative data showed that this may be due to the size of the schools, the geographic distance from the new teacher's classroom to the school library (Freedman & Jaffe, 1993), additional responsibilities assigned to the high school librarians, or a combination of the

three. Therefore, grade level was used as the secondary mechanism to define the matched sample.

Gu and Day (2013) found that teachers working in socioeconomically disadvantaged schools were “more likely to report unstable, fluctuated personal, situational, and professional scenarios” which required more energy for the teacher “to sustain their capacity to be resilient” (p. 29). Additionally, the literature indicated that early career teachers in schools serving high percentages of students of low socioeconomic status (SES) were more likely to burn out than their counterparts in high-SES schools (Kim et al., 2017). Retention rates have also been found to be higher for teachers in schools with less than 50% of students receiving free or reduced-price lunch (Raue & Gray, 2015). For these reasons, Title I status was used as the tertiary mechanism to define the matched sample. Twenty-two of these new teachers in the comparison group (85%) reported that they taught in a Title I school.

The treatment and comparison groups were similar. Each group consisted of 26 first year teachers in one urban public-school district. Socioeconomic status of the schools in which these teachers worked was comparable. Eighty five percent of new teachers in the comparison group worked in a Title I school, while 81% of new teachers in the treatment group worked in a Title I school, a difference of only one teacher. Certification in the subject area being taught was exactly equal, at 77% for both the comparison and treatment group. New teachers in the two groups were also similar by race. Thirty nine percent of new teachers in the comparison group were African American/Black while 42% of new teachers in the treatment group were African American/Black, a difference of only one teacher. The Caucasian/White race was equally represented in both groups (54%), as was Mixed African American/Caucasian at 4%.

The grade levels taught by the comparison group respondents weighted somewhat toward the secondary level, with high school more highly represented in the comparison group (35%) than in the treatment group. Similar to the treatment group, twenty new teachers in the comparison group (77%) were certified in the subject area in which they were currently teaching. Five (19%) taught English/Language Arts, one (4%) taught Foreign Language, two (8%) taught Health/Physical Education, one (4%) taught Mathematics, two (8%) taught Music/Art, one (4%) was a School Counselor, three (12%) taught Science, one (4%) taught Social Studies, six (23%) were Special Education teachers, one (4%) taught Technology, and three (11%) taught in other academic disciplines, including multiple subjects, Naval Science, and Preschool. Of these 26 new teachers in the comparison group, 14 (54%) reported that they had earned a Bachelor of Arts or Science degree, while 12 (46%) had attained a Masters' degree.

There were more male teachers in the comparison group (27%) than in the treatment group. The comparison group was somewhat older than the treatment group. Twelve (46%) were 20 to 29 years old, eight (31%) were 30 to 39 years, five (19%) were 40 to 49 years, and one (4%) was 50 to 59 years. Almost all the new teachers in the treatment group were composed of two races. Ten (39%) were African American/Black, 14 (54%) were Caucasian/White, one (4%) was African American and Caucasian, and one (4%) was mixed race.

An important component of this study was motivation to continue participation through the four-month time period. For this reason, a drawing for a \$50.00 gift card was attached to each new teacher formal measure, and a drawing for a \$25.00 gift card was attached to the formative measure. In addition, one participant from the treatment group was randomly selected each month during the treatment phase to receive a \$50 gift card.

The Study in Phases

This quasi-experimental study (Leedy & Ormrod, 2016) progressed in three phases. The first phase consisted of initial data collection from all responding district new teachers. The second phase comprised the interventions by school librarians for the new teachers in the treatment group only. The third phase consisted of final data collection from all responding district new teachers.

Phase I: Initial Data Collection

Initial data were collected in the first phase of the study (see Figure 8) during October of 2017. The measure used to collect data in Phase I consisted of a Qualtrics questionnaire which included the CD-RISC 10 and nine demographic items. The questionnaire was disseminated via district email to all district new teachers, who were reminded to complete the measure by the researcher, their school librarian, their lead teacher mentor, the district Senior Coordinator of Professional Development, and/or a representative from Assessment, Research, and Accountability. Data for each group were collected separately and stored in passcode protected files for later comparison of matched samples.

Phase I

October 2017

All district new teachers

Initial data collection:

- CD-RISC 10

New Teacher

Demographics

Figure 8. Phase I

Phase II: Interventions

Interventions were implemented by the school librarians for the new teachers in the treatment group during the second phase of the study (see Figure 9), from November 2017 to February 2018. The interventions were defined by the researcher and rolled out weekly over a four month period via a prescribed calendar. Formative assessments of intervention implementation, and response by new teachers to interventions also took place during this phase. Additionally, school librarian demographics were collected during Phase II.

Phase I

October 2017

All district new teachers

Initial data collection:

- CD-RISC 10

New Teacher

Demographics

Phase II

November 2017-February 2018

Treatment group

Interventions with Formative Assessment

School Librarian Demographics

Figure 9. Phase I-II

Phase III: Final Data Collection

Final data were collected in the third phase of the study (see Figure 10) during March-April 2018. The measure used to collect data in Phase III consisted of a Qualtrics questionnaire which included the CD-RISC 10, questions to determine the level of mentoring and collaboration between the school librarian and new teacher, a notice of intent, and the MBI-ES. As in Phase I, the Phase II questionnaire was disseminated via district email to all district new teachers, who were again reminded to complete the measure by the researcher as well as representatives from various district departments. Data for each group were again collected separately and stored in passcode protected files for later comparison between matched samples. Additionally, interviews of school librarian and new teacher pairs took place during Phase III.

<u>Phase I</u>	<u>Phase II</u>	<u>Phase III</u>
October 2017	November 2017-February 2018	March-April 2018
All district new teachers	Treatment group	All district new teachers
Initial data collection:	Interventions with Formative Assessment	Final data collection:
<ul style="list-style-type: none"> • CD-RISC 10 		<ul style="list-style-type: none"> • CD-RISC 10 • Mentoring/Collaboration items • Notice of intent • MBI-ES
New Teacher Demographics	School Librarian Demographics	Six Interviews: Treatment Group (3) and School Librarian Interventionists (3)

Figure 10. Phases I-III

Formal Data Collection

Formal data collection for this study consisted of both quantitative and qualitative data (see Table 9). Demographic items were used to produce a description of the new teachers and school librarians. The CD-RISC 10 and the MBI-ES were quantitative measures to assess new teacher resilience and its inverse, burnout. Two items were used to determine the level of mentoring and collaboration between the school librarian and new teacher. The notice of intent served to represent retention. Qualitative data included interviews of school librarian-new teacher pairs.

Table 9. Survey Tools Used to Measure Resilience and Retention of New Teachers

<u>Tool</u>	<u>Description</u>
Connor-Davidson Resilience Scale 10 (CD-RISC 10)	10 items to measure resilience of new teachers.
Mentoring/Collaboration Score	2 items to measure the amount of mentoring and collaboration by school librarians for new teachers.
Maslach Burnout Inventory-Educators Survey (MBI-ES)	22 items to measure burnout level of new teachers.
Notice of intent	Annual district yes/no survey of all teachers to determine intent to return to current position.

Connor-Davidson Resilience Scale 10 (CD-RISC 10)

The CD-RISC 10 was used in this study as the measure of new teacher resilience. Originally developed in a longer version, the self-report CD-RISC measures stress coping ability

on a 5-point scale (Connor & Davidson, 2003), and change in response to intervention (Windle et al., 2011). The later-developed 10-question short version of the CD-RISC (Windle et al., 2011) was selected for use in this study due to its combined brevity and psychometric ratings (Windle et al., 2011). The shorter version allows for valid, reliable ($\alpha = .85$), and efficient measurement of resilience as a single factor (Campbell-Sills et al., 2009; Madewell & Garcia, 2016).

Mentoring and Collaboration Items

Two items on the March questionnaire measured the level of mentoring and collaboration between the school librarian and the new teacher. Respondents answered these two items on a 6-point scale from “Strongly Disagree” to “Strongly Agree.”

“My school librarian has provided for my needs through mentoring.”

“My school librarian has worked closely with me through instructional collaboration.”

The purpose of these two questions was to collect quantitative data to validate the relationship between the school librarian and the new teacher. Values for these two items were summed during data analysis to provide an overall mentoring/collaboration score.

Maslach Burnout Inventory-Educators Survey (MBI-ES)

The MBI-ES was used in this study as the measure of new teacher burnout, assumed to be the inverse of resilience. The 22 item self-report MBI-ES was selected from the literature as a measure used in other studies of teacher resilience (Beltman et al., 2011; Goddard & O’Brien, 2004; Klusmann et al., 2008; Lantieri et al., 2011). This instrument has been used as a valid and

reliable measure of emotional exhaustion ($\alpha = .90$), depersonalization ($\alpha = .76$), and personal accomplishment ($\alpha = .76$) (Maslach et al., 1981; Maslach et al., 1996). The MBI-ES uses a 7-point scale to evaluate low, average, or high levels of burnout (Maslach et al., 1981; Maslach et al., 1996).

Notice of Intent

A notice of intent was used in this study to represent new teacher retention. In this school district, the notice of intent is standard annual practice by the district Human Resources department to determine preparation of contracts for the upcoming school year. In March of each school year, all district teachers are asked to complete a notice of intent, which is worded as follows.

“Please select one of the following.

- I wish to continue my employment for the next school year.
- I do not wish to continue my employment for the next school year.”

The purpose of this notice of intent for the district is to indicate to the Department of Human Resources that the teacher requests a contract be drawn up for the following school year. Human Resources then produces contracts for teachers to be signed at the end of the school year (personal correspondence). For the purpose of this study, the notice of intent is used to represent retention of the new teachers in the same position for the upcoming school year. For clarification, this wording was adapted to the following for the March 2018 questionnaire.

“Please select the response that best describes yourself.

- I intend to continue my employment in my present position for the next school year.
- I do NOT intend to continue my employment in my present position for the next school year.”

Interviews

The qualitative section of this study of first year teachers and school librarians investigated the contributions that school librarians made in building resilience of new teachers through interviews of school librarian-new teacher pairs (Soulén, 2018). Phenomenology was appropriate in that the researcher attempted to describe a phenomenon in its natural setting (Hayes & Singh, 2012), the lived experience of new teachers who had received special attention from their school librarians. Through the tradition of phenomenology, the researcher attempted to understand the essence of the participant’s experiences with the process of mentoring toward collaboration, since each new teacher brought a unique perspective of this process. Additionally, since the interventionists contributed their own efforts to the process, it was useful to understand the school librarians’ perceptions of the mentoring toward collaboration experience. Personal interviews were used to establish the interventionist and participant voices, and to illuminate resilience strategies (Hayes & Singh). By using a phenomenological approach, the researcher attempted to understand the essence of the school librarians’ and new teachers’ subjective experiences and describe the collective experience of these study interventionists and participants.

Six interviews of school librarians and new teachers informed practice to provide rich description (McMillan & Schumacher, 2010) of the processes of building resilience. First, one

school librarian who was serving as an interventionist was randomly selected at each school level including elementary, middle, and high school. Then, one of her new teachers from the treatment group was randomly selected. The six possible participants were contacted via email.

Participation in the interviews was voluntary. Both the school librarian and the new teacher in the pairing consented in order for the interviews to proceed. Interviews were scheduled at the convenience of the interviewee. In this way, arrangements were made to interview three school librarian-new teacher pairs.

New teachers and their librarians were interviewed separately to encourage trustworthiness of description and informed consent documents were provided. The approximately 40-minute face-to-face interviews took place in the new teacher's building, either in the classroom or in a private room in the school library. Digital voice recordings of the interviews were stored under lock until transcribed, then destroyed. Use of recordings of interviews was appropriate to mitigate researcher bias, and to allow the researcher to better focus on the interview, ask probing questions, and be responsive to the participant (Good, 1966; Patton, 2002). Confidentiality of all interview data was protected.

Personal interviews were used to gain further insight into the process of mentoring toward collaboration. A semi-structured interview protocol (see Appendix C) which was developed from a blueprint allowed for participant clarification, elaboration, and explanation. The purpose of these interviews was to uncover characteristics (Creswell & Singh, 2012) of the relationship between the school librarian and new teacher.

At the close of each interview, the researcher completed a summary sheet for each participant to record thoughts and impressions from the interview. Throughout the interview process, the researcher continued to document thoughts and reflections, and record memos to be

integrated into field notes (Hays & Singh, 2012). This use of memoing to create an audit trail was appropriate in that qualitative research is recursive and data collection occurs simultaneously with data analysis (Hays & Singh, 2012).

Formative Data Collection

The purpose of collecting the formative data was to track the progress of the school librarian-new teachers through the calendar of interventions. The new teacher formative assessment allowed for open response to the interventions. The school librarian formative assessment tracked the implementation of interventions and allowed for comments on the process. Additionally, site visits were used to verify implementation of the interventions, and field notes were used to record the researcher's reactions and to manage the study.

New Teacher Formative Assessment

A mid-study formative assessment of the response to intervention (see Appendix B) was distributed to the treatment group using a Qualtrics questionnaire via a link within a district email. The questionnaire consisted of a single, open-ended question which related back to the monthly themes for November and December.

“Please describe your engagement with your school librarian over the past six weeks. How has this empowered you as a new teacher? Examples may include mentoring and induction, resources, planning, instruction, collaboration, or other related topics.”

This formative assessment of new teacher response also included items to build a unique identifier code to match the respondent anonymously to their October questionnaire responses. To encourage response, the new teachers also had the opportunity within the questionnaire to enter a raffle for a \$25 VISA gift card. The purpose of this formative assessment of new teacher response was to record the new teachers' response to the interventions.

School Librarian Calendar of Interventions Checklist

The school librarians serving as interventionists were requested to keep a checklist to demonstrate the progression of the school librarians and new teachers through the interventions. To follow up on this, a mid-study formative assessment of the interventions (see Appendix B) was distributed to the school librarians via a document attached within a district email. This consisted of a checklist of the calendar of interventions and open-ended comment opportunities. The librarians were instructed to enter the date, or approximate date, that the intervention took place. To return the checklist, the librarians selected to either send via district pony mail to preserve anonymity, or by attaching in a reply email as a more convenient, but not anonymous, response. The purpose of this formative assessment was to demonstrate that the interventions were being implemented as scheduled.

Site Visits

Site visits were made by a representative from the district Department of Assessment, Research, and Accountability. The purpose of these site visits was to ensure that interventions were implemented to safeguard the integrity of the study.

Field Notes

Field notes were kept by the researcher to create accurate and thorough records of activities (Hays & Singh, 2012). These field notes took several forms. Many of the field notes were email correspondence between the researcher, the school librarians serving as interventionists, and the school district administrators who were overseeing the study. Notes were also kept of telephone conversations. The researcher also kept a written journal as the study progressed. Other evidence of the progress of the study was kept in a digital “show and tell” folder which included photos and images as well as text. The purpose of these field notes was to manage and record the activities taking place throughout the study.

Interventions

Montiel-Overall’s Teacher and Librarian Collaboration model (Montiel-Overall, 2008) used four facets of collaboration on a continuum, namely coordination, cooperation, integrated instruction and integrated curriculum. Based on the Montiel-Overall model, this study focused on one of Montiel’s facets for each month of interventions. The Continuum of Care which was developed for this study “starts small and evolves” (Turner, 2014), building over time to develop both the school librarian-new teacher bond and the resilience of the new teacher.

To test the Continuum of Care Model, interventions were implemented in four stages of engagement, empowerment, partnering, and co-teaching. Each stage corresponded to one month of the intervention phase. These interventions initiated with the librarians first engaging the new teachers in the Continuum of Care. Once the librarian-new teacher connection had been made,

the librarian served in a mentoring role to empower the new teacher. As the implementation of the Continuum of Care model progressed, the librarians' role turned toward a more collaborative partnership, culminating in co-taught lesson(s) in a full and equal partnership.

Weekly standardized interventions to build resilience, defined by the researcher and implemented by the school librarians, progressed on the Continuum of Care from November 2017 through February 2018. These interventions were targeted at augmenting the protective factors measured by the resilience scales to build resilience in new teachers. The interventions built a structure of support around the new teacher as the process with the intended products of increased new teacher resilience and retention.

Engage

The aim of the November 2017 interventions was to engage the new teachers in a relationship with the school librarian. These interventions set the stage for later mentoring and collaborative activities. Opening activities (see Table 10) centered on transactional coordination (Montiel-Overall & Hernandez, 2012) to initiate the school librarian-new teacher partnership, which represents a different kind of mentoring outside of traditional classroom instructional mentoring (Morris, 2015). Interventions during November focused on engagement and coordination between the school librarian (SL) and the new teacher (NT). Assessment of the new teacher's needs and provision of information about resilience to the new teacher were key to this month's interventions.

Table 10. November Interventions

 Week 1 October 30-November 3 Welcome (five school days)

- The school librarian (SL) will send a welcome email (Lipton & Wellman, 2003; Morris, 2015) to the new teachers (NTs) they will be working with in their building. In order to standardize practice, this email will be developed by the researcher and provided to the SLs to be sent verbatim to the new teachers (see Appendix D).
- The SL will follow up the email with the first of three classroom visits (Kymes & Gillean, 2014) to each of the NTs' classrooms in her building to welcome them to the school. During this visit the SL will perform a short needs assessment consisting of an informal interview of the NT by the SL (Morris, 2015). The interview will consist of three questions provided by the researcher. SLs at individual schools will be asked to respond to the needs assessment to suggest instructional materials in a variety of formats in the NT's subject area to help diverse learners (Turner & Riedling, 2003). As needed, the SL will provide library equipment and instruction in its use.

 New Teacher Needs Assessment

Resource	Question
Physical	1. What physical resources do you need to assist you in building resilience?
Human	2. What human resources can I connect you to which will assist you in building resilience?
Digital	3. What digital resources do you need to assist you in building resilience?

Week 2 November 6, 8-9 2017 Resilience (three school days)

- The SL will visit the NTs' classrooms a second time to share the APA Road to Resilience brochure provided by the researcher. (APA, 2017).

Tuesday, November 7 Virtual Teacher Workday

- The SL will send an e-card of encouragement (Lipton & Wellman, 2003) to her NTs during the Virtual Teacher Workday on Tuesday, November 7, 2017. An example of an e-card tool may be found at <https://www.bluemountain.com>.

Friday, November 10 Veterans Day (Schools Closed)

Week 3 November 13- 17 Schedule Library Activity (five school days)

- The SL will coordinate with their NTs either in person, via email, or via phone call to schedule time in the next two weeks for students to participate in library activities or events (Loertscher, 2000; Montiel-Overall & Hernandez, 2012) as individuals, small groups (Turner & Riedling, 2003), or whole class. This could be time to read/check out books, learn to access/read ebooks, book talks, storytelling, speed-dating books, or a special event in the library such as a Book Fair, etc. Alternatively the SL could provide opportunities for exhibits or displays of student work (Turner & Riedling, 2003).
- The SL will informally share teaching materials, files, bulletin board displays, etc. which are relevant to the NT in the context of her subject, grade level, or topics under instruction (Lipton & Wellman, 2003). The SL may also offer to help the teacher produce instructional materials or locate materials from sources outside the library (Turner & Riedling, 2003).

Week 4 November 20-22 Quick Check-In (2 ½ school days)

- The SL will check in informally with the NTs in her building (Lipton & Wellman, 2003) to keep the NT informed of at least one new material or trend or to offer information about at least one of the latest technologies for instruction and information (Turner & Riedling, 2003). For example, these may include new books or materials in the library, award winning apps or websites (see AASL Best Apps and Best Websites (<http://www.ala.org/aasl/>), or new equipment that is part of the library collection or school.

Wednesday, November 22 Early Release Day

Thursday, November 23-Friday, November 24 Thanksgiving Break

Table 10. (Continued)

Week 5 November 27-December 1 Connection (five school days)

- The SL will coordinate with the NTs in her building to connect each to at least three other contacts who can help support the new teacher's development (Trees, 2016).
 - The SL will connect classroom learning to the school library program by promoting and supporting the current instructional program by highlighting classroom activities through the school media such as an in-house news show or newsletter or district-wide or local news media (Turner & Riedling, 2003).
-

Empower

Moving higher on the collaboration continuum (Montiel-Overall & Hernandez, 2012), interventions for December 2017 (see Table 11) concentrated on activities of interactional cooperation between the school librarian and the new teachers(s) at her school. These December activities further established the mentoring relationship, with greater emphasis placed on empowering the new teacher in her role as a professional educator.

Table 11. December Interventions

Week 6 December 4-8 Resources at the Ready (five school days)

- The SL will visit the teacher in her classroom a third time to provide resources at the ready (Morris, 2015) in the form of the school district's Office of Media Services Reference Resources brochure [brochure not appended due to district identification] which may be edited by the individual school librarian to include any extra resources provided by that school. The SL will review these available digital resources with the NT, either on paper or by accessing the Reference Resources page on the district website. The SL also will make suggestions for integration of these resources into classroom lessons and encourage the NTs to explore their use.
- The SL will encourage the NTs to bring a colleague to the library to discuss resources available through the library and future school librarian-teacher collaboration (Trees, 2016).

Week 7 December 11-15 Gather Instructional Resources (five school days)

- The SL will ask the NTs either in person, via email, or via phone about relevant topics for classroom instruction, then gather instructional resources in any format to deliver to the NTs' classrooms or place on reserve in the library (Loertscher, 2000; Montiel-Overall & Hernandez, 2012; Morris, 2015; Turner & Riedling, 2003).
- The SL will set up a face-to-face social event (Trees, 2016) with the NTs, such as sharing a coffee or breakfast biscuit, or meeting after school for a soda. Receipts (\$20.00) can be sent to the researcher for reimbursement.

Week 8 December 18-20 Celebrate Success! (Lipton & Wellman, 2003) (three school days)

- The SL will identify an area of strength of the NT and send an email to an administrator celebrating the success (Lipton & Wellman, 2003) and CC: the NT.

December 21-January 1 Winter Break

Partner

Interventions for January 2018 (see Table 12) focused on reciprocal integrated instruction (Montiel-Overall, 2010) in which the school librarian-new teacher pairs jointly planned for instruction to be implemented in February (AASL, 1988; Loertscher, 2000; Montiel-Overall and Hernandez, 2012). The collaborative partnership was developed and primed for co-teaching, while at the same time the mentoring role of the school librarian was continued.

Table 12. January Interventions

<p>Week 9 January 2-5 Plan (four school days)</p> <ul style="list-style-type: none"> • The SL will attend a planning meeting (Lipton & Wellman, 2003; Montiel-Overall & Hernandez, 2012) with each NT, and together plan and develop a co-taught lesson or unit (Turner & Riedling, 2003) either for the classroom or to be taught in the library. The lesson will be designed to meet the needs of the students in the individual classroom on objectives being taught during that time frame using library resources to enhance instruction. As part of the planning of the lesson, the librarian will offer to talk to students about using library materials as a way to encourage life-long learning (Turner & Riedling, 2003). • The SL and NT together will review the information provided to the NT in November about building resilience (American Psychological Association, 2017), discuss successes and plan for future resilience building. <p>Week 10 January 8-12 Co-Analyze Student Data (five school days)</p> <ul style="list-style-type: none"> • The SL and NT together will together analyze student performance data (Lipton & Wellman, 2003) in preparation for co-taught lesson(s). • The SL and NT will discuss ways the SL can work with the NT to teach students to locate, utilize, analyze and produce information (Turner & Riedling, 2003). <p>Week 11 January 16-19 Gather Resources (four school days)</p> <ul style="list-style-type: none"> • The SL and NT will gather resources in preparation for co-taught lesson(s) (Montiel-Overall & Hernandez, 2012). • As needed, the school librarian will offer to adapt materials to suit diverse student learning (Turner & Riedling, 2003). <p style="text-align: center;">January 15 ML King Day Schools Closed</p> <p>Week 12 January 22-26 Co-Write Lesson Plan(s)</p> <ul style="list-style-type: none"> • The SL and NT will collaboratively write the lesson plan(s) for co-taught lesson(s) (Lipton & Wellman, 2003; Montiel-Overall & Hernandez, 2012). • The SL will visit the NTs classroom to observe during instructional time to informally assess the NTs' teaching style in preparation for co-teaching (Loertscher, 2000). The SL will later discuss with the NT any strategies which may enhance their co-teaching. <p style="text-align: center;">January 29 District Professional Development Day Office of Media Services Share Session. The SL interventionists will meet together at the district professional development day to share the progress of their mentoring as collaboration partnerships.</p> <p style="text-align: center;">January 30 Teacher Records Day</p>
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Co-Teach

The February 2018 interventions (see Table 13) concluded the Continuum of Care with an interoperable integration in which the school librarian shared curriculum and student assessment with the new teachers (AASL, 1988; Loertscher, 2000; Montiel-Overall and Hernandez, 2012). The February interventions highlighted the collegial professional relationship in which the school librarians and new teachers practice as equals.

Table 13. February Interventions

<p>Week 13 January 31-February 2 Curriculum Co-Planning/Student Co-Assessment (three school days)</p> <ul style="list-style-type: none"> • The SL will attend a curriculum planning meeting with each of the three NTs in her building and participate in instructional design and student assessment (Montiel-Overall and Hernandez, 2012). The venue for these meetings will consist of either department meetings, grade level meetings, cluster meetings, or one-to-one meetings depending on the planning practice in the individual school building. The SL will participate in the role of a collaborative partner to plan curriculum implementation and student assessment (Montiel-Overall and Hernandez, 2012).
<p>Weeks 14-15 February 5-9 and 12-16 Co-Teaching (ten school days)</p> <ul style="list-style-type: none"> • The SL and NT together will implement co-taught collaborative lesson(s) (Montiel-Overall and Hernandez, 2012).
<p>Week 16 February 20-23 Student Co-Assessment (four school days)</p> <ul style="list-style-type: none"> • The SL and NT together will assess student work (Lipton & Wellman, 2003; Montiel-Overall & Hernandez, 2012) from collaborative lesson(s). • The SL and NT together will note any improvements which could be made to the mentoring toward collaboration process (Lipton & Wellman, 2003) and forward these suggestions on to the researcher. <p style="text-align: center;">February 19 Presidents Day Schools Closed</p>
<p>Week 17 February 26- March 2 Reflect (4 ½ school days)</p> <ul style="list-style-type: none"> • The SL and NT together will reflect (Lipton & Wellman, 2003) on collaborative lesson(s) through a shared journal entry. • The SL and NT will celebrate their mentoring toward collaboration partnership (Lipton & Wellman, 2003) by sharing their experience at a faculty meeting, through the school newsletter, on the school website, or any other public venue.

This calendar of interventions tested the Continuum of Care model in four stages of engagement, empowerment, partnering, and co-teaching. These interactions between the school librarian and the new teacher initiated in mentoring, then progressed on a scale ranging from low

to high collaborative endeavors (Montiel-Overall & Hernandez, 2012). The purpose of providing these interventions to new teachers by the school librarian was to provide mentoring opportunities and to develop planning and instructional skills of new teachers in a collaborative partnership. This structure of support aimed to increase both the efficacy and self-efficacy of new teachers, and in turn increase the resilience of these new teachers.

Data Analysis

Data collected included a summed mentoring/collaboration score, scores on the CD-RISC 10 and MBI-ES, the notice of intent, and interview data. Each category of data was analyzed in a distinct way (see Table 14). A phenomenological approach was used to analyze the textural interview data in order to understand the lived experiences of a representative selection of the school librarians and new teachers who participated in this study. ANOVA and ANCOVA were used to analyze the continuous CD-RISC and MBI-ES data. A *t*-test was used to compare the mentoring/collaboration scores. Logistic regression was used to analyze the categorical notice of intent data.

Table 14. Data Analysis

<u>Measure</u>	<u>Month</u>	<u>Category of Data</u>	<u>Comparison</u>	<u>Analysis</u>
Mentoring/ Collaboration Score	Mar 2018	Continuous	Comparison Group to Treatment Group	<i>T</i> -test
CD-RISC 10	Oct 2017/Mar 2018	Continuous	Treatment Group (Oct) to Treatment Group (Mar)	ANOVA
CD-RISC 10	Mar 2018	Continuous	Comparison Group to Treatment Group	ANCOVA
MBI-ES	Mar 2018	Continuous	Comparison Group to Treatment Group	ANCOVA
Notice of intent	Mar 2018	Categorical	Comparison Group to Treatment Group	Logistic regression
Interviews	Mar-Apr 2018	Textural	Description of lived experiences	Phenomenological

Mentoring/Collaboration Score

The purpose of collecting the mentoring/collaboration score was to compare the treatment group to the comparison group as a check for fidelity to the model. A *t*-test was used to compare the comparison group to the treatment to group for the summed mentoring/collaboration scores.

CD-RISC 10

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

The analysis of treatment group within-subject scores on the CD-RISC 10 from October 2017 to March 2018 was compared to identify changes in resilience over the course of the study.

Analysis of variance (ANOVA) was used to determine whether treatment group means differed significantly (Field, 2013), from October to March, $p < .05$.

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

First, the new teachers in the comparison group and the new teachers in the treatment group were matched on their initial resilience levels, grade level taught, and Title I status of the school. The two groups were compared based on scores on the CD-RISC 10 in March 2018. Analysis of co-variance (ANCOVA) was used to determine whether group means differed significantly for resilience as measured by the CD-RISC 10 (Field, 2013), $p < .05$.

MBI-ES

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

Using the same matching criteria as for Research Question 2, the comparison group and the treatment group were compared for burnout. Scores on the MBI-ES were compared to determine differences in resilience as inversely evidenced by feelings of burnout. Analysis of co-variance (ANCOVA) was used to determine whether group means differed significantly (Field, 2013), $p < .05$.

Intent to Return

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

To triangulate the data, the comparison group and the treatment group were also compared using the notice of intent data to represent retention. Binary logistic regression was used to determine whether group means differed significantly, $p < .05$.

Interview Data

The researcher, who has personal experience of mentoring and collaboration with new teachers, wished to gain multiple perspectives leading to generalizations about this experience (Leedy & Ormrod, 2016). To establish trustworthiness, the researcher used bracketing as a first step to mitigate researcher bias, examining preconceived beliefs, values, and assumptions about the research topic by putting aside prejudgments (Hayes & Singh, 2012; Leedy & Ormrod, 2016; McMillan & Schumacher, 2010) and focusing on analysis of experience. In this way the researcher attempted to view the phenomenon with a fresh perspective, allowing the voices of the participants to direct the findings while searching for commonalities across participants.

The researcher conducted, recorded, and sent out for verbatim transcription all participant interviews. To prepare for analysis, the original audio files were sent to Verbal Ink online transcription service. The researcher reviewed the returned transcriptions to check for authentic translation and integrity to the recording. Appropriate edits were made to the transcriptions. The transcriptions were then organized into six digital files. Confirmability and authenticity of these

files was established through member checking in which the researcher provided a copy of each participants' transcript and allowed the opportunity for clarification and extension.

Inductive analysis of the qualitative data began with these large domains of raw data to be generalized to themes. The researcher first conducted a preliminary read-through scan of the database to develop an overview, while making margin notes, and beginning to form initial codes. Next, the researcher highlighted edifying chunks of data on the transcripts and set aside data not related to the research questions.

The researcher then created a matrix and began to sort data by moving chunked data as variables of interest to the matrix in original format. While doing so, the researcher grouped related new teacher and school librarian data that clustered due to similar characteristics (Hays & Singh, 2012) by placing patterns of data together as rows on the matrix.

These sorted data were next assigned codes and the codes were condensed, thus reducing data into meaningful named segments. The researcher coded these transcriptions through the process of horizontalization. The researcher identified "nonrepetitive, nonoverlapping statements in participants' transcripts" (Hays & Singh, 2012, p. 354) then listed significant relevant statements and assigned equal value to these statements. These systematic procedures were used to move from significant statements to meaning units (Cresswell & Poth, 2018).

These coded data were then analyzed for themes and patterns. The data were grouped by related codes then assigned salient sub-themes. Finally, the grouped data were again sorted and four overarching themes were assigned. Decisions regarding coding, sorted/grouped sub-themes, and themes were made in a recursive fashion, with the researcher returning to re-sort and re-group as new data were reviewed, and re-reviewed, and new meanings brought to light. This

process continued until the researcher felt satisfied that the representation of the data was thorough and accurate.

As a final step, a peer reviewed the audit trail to evaluate the comprehensiveness and rigor of the interview analysis (Hays & Singh, 2012). Consensus coding was used to establish trustworthiness. The researcher and a peer reviewed the transcripts then discussed and arrived at a shared operational definition for codes, in this way “co-creating new knowledge about the phenomenon at hand” (Hays & Singh, 2012).

Thus, by sieving through the participant descriptions, the researcher attempted to thickly describe and authentically condense the lived experience into its essence (Creswell & Poth, 2018; McMillan & Schumacher, 2010). Knowledge gained through this phenomenological data analysis may identify the social relationships within the school and aid in understanding improvement of the school community, leading to greater resilience of new teachers (Creswell & Poth, 2018).

To interpret the data, the researcher aimed to describe the essence of new teacher resilience, representing the data in text through discussion. The conclusions drawn were also related to the quantitative data and compared to relevant literature. By developing textural and structural descriptions, the researcher sought to form a composite description to answer the questions “What happened?” and “How was the phenomena of new teacher resilience experienced?” (Creswell & Poth, 2018).

The aim of the data analysis was to establish a systematic and procedural, evidence-based description of school librarians and new teachers who engaged in a relationship using the

Continuum of Care. This analysis will be used to develop credible conclusions about the mentoring toward collaboration experience.

Assumptions, Limitations, and Delimitations

For this study, it is assumed that the role of the school librarian includes a unique collaborative relationship with teachers. It is also assumed that resilience is a dynamic capacity which may be influenced by socio-cultural factors (Johnson et al, 2016), and that resilience is a single phenomenon which can be measured, and which impacts teacher retention. The assumption is made that the psychological theory of resilience can be applied to educational settings. Use of the MBI-ES as a measure of resilience assumes that burnout is inversely related to resilience. Standard administration protocols are assumed to be followed for all measures.

The quasi-experimental design of this study meant that the researcher could not control for confounding variables, rule out other environmental influences that may affect new teacher resilience, or reject alternative explanations for the results, and thus cannot draw causal inferences. Because of the size of the sample and the location in one school district in one geographic location, the results have limited generalizability. Use of multiple intervention strategies present difficulties when attempting to parse out which intervention(s) actually influenced the results. The study lacked follow-up for new teachers who left the district during the school year. Two of the instruments used are self-perception surveys which could introduce bias into the study. The study has limited statistical power due to sample size.

This study was delimited to investigating teacher resilience and retention. It did not delve into the effect of the interventions on student academic achievement. This study will inform the development of the Continuum of Care model for building resilience of new teachers. More research will be needed to reach any definitive conclusions.

Conclusion

The Continuum of Care model tested in this study provided interventions for new teachers by school librarians to build resilience, reduce burnout, and in turn increase retention. The prescriptive nature of the interventions defined the Continuum of Care which was rolled out on a calendar of actions taken by the school librarian. The purpose of standardizing these interventions was to engage in evidence-based research to account for the roles of the school librarians across the district in the professional development of new teachers.

The use of initial and final measures provided the opportunity to measure growth of within-group resilience over a four-month period and allowed for between-group comparison of resilience, burnout, and retention using matched samples. Matched sampling created an opening to study the influence of a full-time, certified school librarian on new teacher resilience, burnout, and retention. Additionally, interviews provided thick description of the mentoring toward collaboration relationships of the school librarian-new teacher pairs.

This chapter has reviewed the methodology of the study. It began with the research questions, followed by the model to be tested, the population, sample, and setting, and a description of the interventionists. The chapter defined the three phases of the study and

delineated data collection procedures, both formal and formative. Then the chapter described the interventions used in the study. The chapter concluded with an explanation of the methods used for data analysis as well as assumptions, limitations, and delimitations. The results of the data analysis will be presented in Chapter IV.

CHAPTER IV RESULTS

Chapter IV describes the findings for the research questions investigated for this dissertation. The chapter presents the effects on resilience, burnout, and retention when implementing the Continuum of Care for new teachers by school librarians. In the first section, data are presented to establish that the comparison group and treatment group were equivalent on resilience level prior to treatment. Then, data are presented to establish that the treatment group did receive higher levels of mentoring and collaboration than the comparison group.

The second section presents the results for each of the four research questions. First, the chapter presents findings for Research Question 1 and Research Question 2 based on data obtained from the October 2017 and March 2018 CD-RISC 10, followed by results of the interviews relating to resilience of new teachers. Next, this chapter presents findings for Research Question 3 based on data obtained from the March 2018 MBI-ES, followed by interview results relating to burnout. Finally, the chapter presents findings for Research Question 4 based on data obtained from the March 2018 notice of intent, followed by interview results relating to retention. Significance levels are set at $p < .05$ for all tests, except as noted.

Interviews of three new teachers in the treatment group and their school librarians provided the data for the qualitative analysis. These interviews took place at one elementary school (K-5), one middle school (6-8), and one high school (9-12). There were four themes developed by the researcher from the interview data, including Isolation/Connection, Provision of Resources, Modeling Teaching Behavior, and Looking Back/Looking Forward.

Preliminary Analysis

In order to establish that the two groups were equivalent on resilience level prior to treatment, an independent t -test was used to examine scores on the October 2017 CD-RISC 10 for the comparison group and treatment group ($N = 52$). To investigate for potential outliers, the October 2017 CD-RISC 10 scores were first converted to z -scores, then analyzed for any scores exceeding $|3.29|$ (Field, 2013). The analysis revealed no outliers for the October 2017 CD-RISC 10 scores.

Application of the independent t -test assumes that the dependent variable is measured at least at the interval level, scores are independent of one another, the populations from which the samples are taken are normally distributed, and that samples are obtained from populations of equal variances (Field, 2013). October 2017 CD-RISC 10 scores for the comparison and treatment groups were measured at the interval level and were independent of one another. Thus the first two assumptions were met. A Kolmogorov-Smirnov test indicated that the October 2017 CD-RISC 10 scores did not deviate significantly from normal, $D(52) = 12, p = .07$.

Scores on the October 2017 CD-RISC 10 were similar for the comparison group, $M = 31.04, SD = 4.266$ and the treatment group, $M = 30.77, SD = 5.109$ (see Table 15). An independent samples t -test confirmed that the treatment group and comparison group means (see Table 16) were not significantly different $t(50) = -.206, p = .837, d = 0.06$, representing a medium effect size. This showed that in October 2017, the resilience levels of the comparison and treatment groups were not significantly different. Levene's test was not significant, $F(1, 50) = 1.24, p = .27$. Therefore equal variances were assumed.

Table 15. Group Statistics October 2017 CD-RISC 10

	<u><i>n</i></u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Std. Error Mean</u>
Comparison	26	31.04	4.266	.837
Treatment	26	30.77	5.109	1.002

Table 16. Independent Samples *T*-test October 2017 CD-RISC 10 (Equal Variances Assumed)

<u>Levene's Test for Equality of Variances</u>		<u><i>T</i>-test for Equality of Means</u>					<u>95% Confidence Interval of the Difference</u>	
<u><i>F</i></u>	<u><i>Sig.</i></u>	<u><i>t</i></u>	<u><i>df</i></u>	<u><i>Sig.</i> (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Difference</u>	<u>Lower</u>	<u>Upper</u>
1.240	.271	-.206	50	.837	-.2692	1.3054	-2.8911	2.3527

To establish that the treatment group did receive higher levels of mentoring and collaboration than the comparison group, data were collected as part of the March 2018 questionnaire. Two items were included to evaluate the level of mentoring and collaboration received by new teachers from their school librarian, for both the comparison group and the treatment group.

“My school librarian has provided for my needs through mentoring.”

“My school librarian has worked closely with me through instructional collaboration.”

Respondents were offered a six-point Likert scale ranging from Strongly Disagree (1 point) to Strongly Agree (6 points), with zero indicating “No librarian in my school”. Scores for the two questions were summed to produce a total mentoring/collaboration score on a range of 0 to 12.

For the comparison group, mentoring/collaboration scores ranged from 0 to 7, with a mean of 6.35 ($SD = 4.185$) and a median of 6.5 (see Table 17). For the treatment group, scores ranged from 7 to 12, with a mean of 10.85 ($SD = 1.666$) and a median of 12.

Table 17. New Teacher Mentoring and Collaboration Score Descriptives

	<i>n</i>	<u>Median</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Std. Error Mean</u>
Comparison	26	6.5	0	7	6.35	4.185	.821
Treatment	26	12.0	7	12	10.85	1.666	.327

A divergent bar graph (see Figure 11) shows that the perceived levels of both mentoring and collaboration provided by the school librarians for new teachers in the treatment group were greater than for the comparison group. Additionally, the summed mentoring/collaboration scores (see Figure 12) present evidence that the treatment group did receive more total mentoring and collaboration from their school librarians under the Continuum of Care model.

Levels of Mentoring and Collaboration Comparison and Treatment Groups

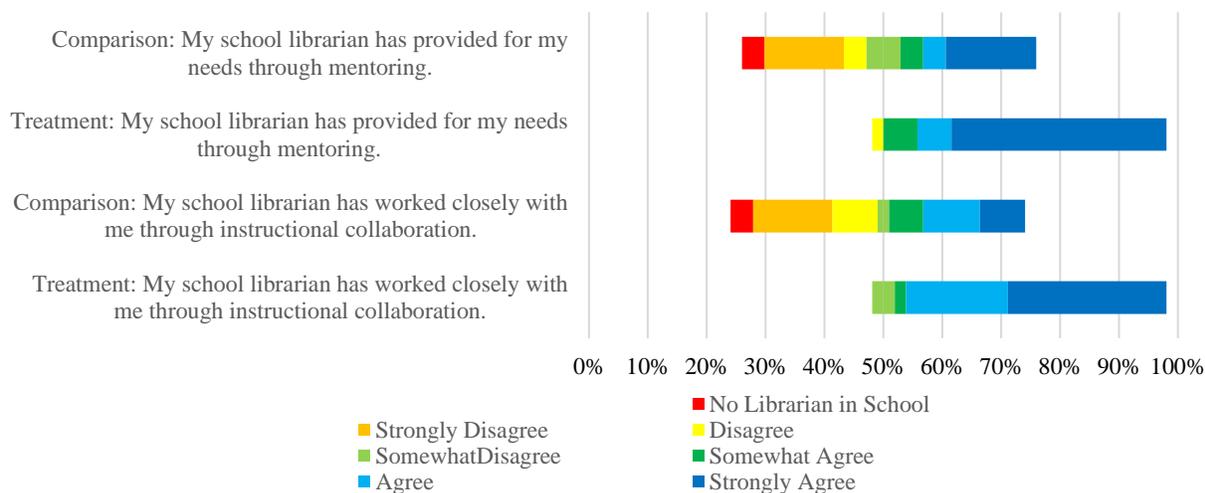


Figure 11. Levels of Mentoring and Collaboration, Comparison and Treatment Groups

Summed Mentoring/Collaboration Scores Comparison and Treatment Groups

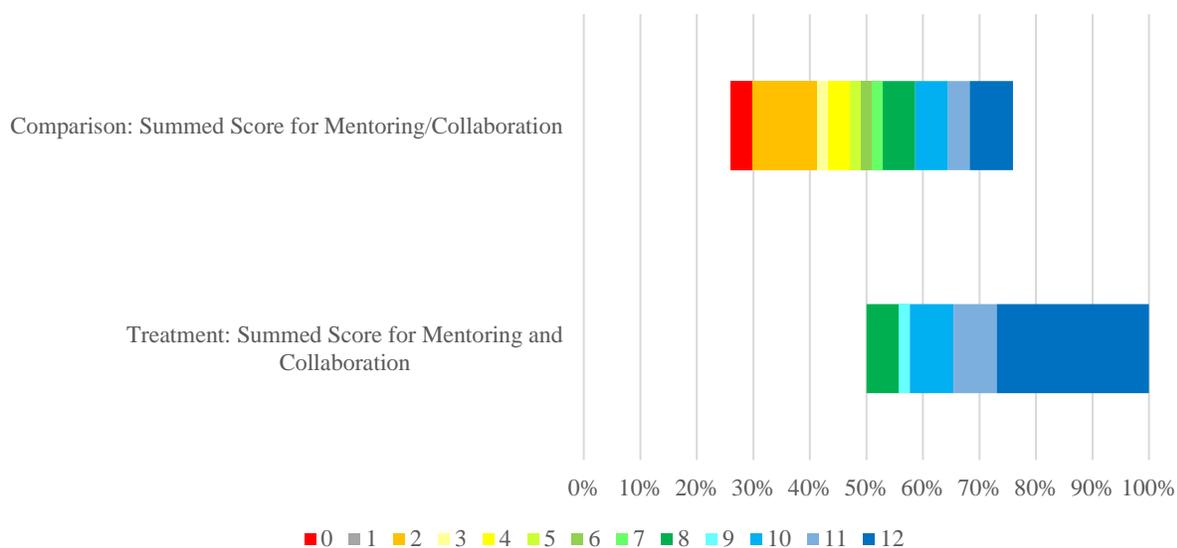


Figure 12. Summed Mentoring/Collaboration Scores, Comparison and Treatment Groups

These mentoring/collaboration scores indicate that new teachers in the treatment group did receive higher levels of mentoring and collaboration from their school librarian. Twenty two of 26 new teachers in the treatment group registered a mentoring/collaboration score of at least 10 on a scale of 0-12. However, the three new teachers in the treatment group who scored a 7 on the mentoring/collaboration scale apparently did not receive the full treatment as outlined in the Continuum of Care model. Additionally, nine new teachers in the comparison group did appear to have received some form of mentoring and collaboration from their school librarian.

An independent samples *t*-test was conducted to establish differences between comparison group and treatment group means. Assumptions for performing the *t*-test were met. Mentoring/collaboration scores were independent, and the data were measured at the interval level. To investigate for potential outliers, mentoring/collaboration scores were converted to *z*-scores and examined. The analysis revealed no outliers for the mentoring/collaboration scores. Levene's test showed that the assumption of equal variance was violated. Therefore, equal variances were not assumed.

Results of the *t*-test (see Table 18) indicate that on average, participants in the treatment group received significantly more mentoring and collaboration, $t(50) = 5.094$, $p < .001$, $d = 1.42$, a very large effect size, the difference between the two means being larger than one standard deviation (Rovai, Baker, and Ponton, 2013).

Table 18. Independent Samples *T*-test for Mentoring/Collaboration Scores

	Levene's Test for Equality of <u>Variiances</u>		<u><i>t</i>-test for Equality of Means</u>						
	<u><i>F</i></u>	<u><i>Sig.</i></u>	<u><i>t</i></u>	<u><i>df</i></u>	<u><i>Sig.</i> (2- tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Difference</u>	95% Confidence Interval of the Difference	
								<u>Lower</u>	<u>Upper</u>
Equal variances assumed	37.920	.000	5.094	50	.000	4.50000	.88341	2.72562	6.27438
Equal variances not assumed			5.094	32.729	.000	4.50000	.88341	2.70212	6.29788

Qualitative Analysis

To analyze the qualitative data, the researcher created a matrix and sorted the data by moving chunked data to the matrix in original format (see Figure 13 for excerpts from the matrix). The researcher grouped related new teacher and school librarian data by similar characteristics (Hays & Singh, 2012), placing patterns of data together as rows on the matrix. To identify subgroups of participants during the analysis process, new teacher data were romanized and school librarian data were italicized. Font colors of the data were assigned by school level, i.e. blue for elementary, red for middle, and orange for high school.

Next, the researcher coded these transcriptions through the process of horizontalization. The data were grouped by related codes then assigned sub-themes which were identified by color-coded background shading. Examples of these sub-themes include proximity to the library,

shared subject area, and school environment. The grouped data were once more sorted, and four overarching themes were assigned, including isolation/connection, provision of resources, modeling teaching behavior, and looking back/looking forward. As with the sub-themes, these overarching themes were identified by color coded background shading. A peer auditor reviewed the grid of meaning statements, codes, subthemes, and themes. The result was a thematic matrix using type style and color to identify cases and color-coded subthemes and themes with detailed descriptions that summarized the individuals' experiences.

These textual descriptions were then analyzed to create a structural description in order to identify multiple potential meanings and relationships, and to fully examine the essence of their meaning (Hayes and Singh, 2012). The researcher carefully selected and developed significant statements, grouping these statements by research question to get at the larger meaning of the data. This text was used to create a narrative of the study findings.

Four Overarching Themes to Describe the Essence of New Teacher Resilience

What happened? How was the phenomena of new teacher resilience experienced?

<u>Themes</u>	<u>Subthemes</u>	<u>Code</u>	<u>Statements</u>
RQ 1 & 2			
Isolation/Connection	Proximity to library	Physical Digital	<i>"I worked with all three. They were all three in the science department. Different schedules, but... close in proximity. So that helped, number one, because they're right here on this [hall]."</i> (SL2@---MS) "She just was always there. She always e-mailed me." (NT3@---HS)
Provision of Resources	Type of resource	Digital resources Human resources	"I know that Ms. R--- teaches a lot of digital, internet skills and computer skills, so in that sense it's [working with the ITRT] is kind of related." (NT1@---ES)
Modeling Teaching Behavior	Shared subject area	Special education	"Her experience in special education was definitely very helpful to me." (NT1@---ES) <i>Around that time, she had gotten information from another colleague to say... you could really go to Mrs. R--- for help because she was a former special ed teacher...</i> (SL1@---ES)
RQ 3			
Isolation/Connection	Treats	e-card Sense of humor	<i>"I have a subscription to the American Greetings E-Cards, and they have the funny tones...these meerkats hopping up and down and singing this silly song. It was just have a great day, have a silly time. And then I sent another one before the winter holidays, just to go out and enjoy your winter break. And that was penguins just something lighthearted and silly, and you look at it and you laugh. It gives you a smile and puts you in a better mood."</i> (SL3@---HS)
RQ 4			
Isolation/Connection	School environment	Pleasant	"I would just say the mentorship [most influenced intent to return next year]. It definitely made this environment more pleasant which is encouraging for me to come back" (NT2@---MS).
	School environment	Non-threatening	<i>"I'm just some lady over here in the library that she can come to and talk to</i> (SL1@---ES).
Looking Back/Looking Forward	Second year	Lesson improvements	<i>If there is a degree of resiliency that they are looking forward to another year, that they're thinking how can I improve that lesson and use these [resources]?</i> (SL2@---MS)

Figure 13. Excerpts from Qualitative Matrix

Results by Research Question

Results of the data analysis are presented here by research question, first for the questionnaire data analysis, then for the interview data analysis. Results for the first two research questions are presented together because interview respondents did not discriminate between

change in resilience over the course of the study vs. comparing resilience between the comparison group and treatment group. Next, results for the third research question are presented. Finally, results for the fourth research question are presented.

Research Questions 1 & 2

Findings for Research Question 1 and Research Question 2 are presented in this section. Results are first presented for change in resilience of new teachers in the treatment group from October 2017 to March 2018 as indicated by scores on the CD-RISC 10. Next, results are presented comparing resilience of new teachers in the treatment group to resilience of new teachers in the comparison group as indicated by scores on the CD-RISC 10 in March 2018. Results of the interview data regarding new teacher resilience for Research Questions 1 and 2 are presented together.

In general, qualitative results show that new teachers appreciated their professional relationship to their school librarians. At the high school level, a new English teacher praised her school librarian, saying “I don't know what I would do without her... [She] went above and beyond” (NT3@---HS). An elementary school special education teacher expressed that the process of mentoring and collaboration “definitely made a huge impact” on her resiliency as a new teacher (NT1@---ES). “Just saying you’re doing a good job” (NT3@---HS) provided the encouragement and positive reinforcement which contributed to her ability to face the challenges of her first year.

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

Results show that there was not a significant difference between resilience scores for the treatment group from October to March of a school year. A significant interaction between resilience over time and age was found.

Quantitative results were analyzed for Research Question 1 using first a *t*-test to establish differences in group means, then analysis of variance (ANOVA) to control for additional variables which may have influenced the relationship (Pallant, 2016). A paired samples *t*-test was conducted to evaluate the impact of the interventions on the CD-RISC 10 scores of new teachers in the treatment group ($n = 26$) from October 2017 to March 2018.

Assumptions for scores on the October 2017 CD-RISC 10 have been previously shown to have been met. Scores for the March 2018 CD-RISC 10 ($N = 52$) were independent, and the data were measured at the interval level. To investigate for potential outliers, March 2018 CD-RISC 10 scores were first converted to *z*-scores. The analysis revealed no outliers for the March 2018 CD-RISC 10 scores.

As an additional assumption for the paired samples *t*-test, the differences between the October 2017 and March 2018 CD-RISC 10 were computed, then tested for normal distribution. (Field, 2013; Pallant, 2016). A Kolmogorov-Smirnov test indicated that the sampling distribution was normal, $D(52) = .10, p = .200$.

Table 19 displays descriptive statistics of CD-RISC 10 scores for the treatment group in October 2017 ($M = 30.77, SD = 5.109$) and March 2018 ($M = 31.23, SD = 5.501$). A paired

samples *t*-test indicated that these scores were not significantly different, $t(25) = -0.504$, $p = .618$, $d = 0.09$, a very small effect (see Table 20).

Table 19. Descriptive Statistics CD-RISC 10, Treatment Group Only

<u>Time period</u>	<u><i>n</i></u>	<u>Mean</u>	<u>Std. Deviation</u>
October 2017	26	30.77	5.109
March 2018	26	31.23	5.501

Table 20. Paired Samples *T*-test, October 2017 – March 2018 CD-RISC 10

	Paired Differences					<i>t</i>	<i>df</i>	Sig. (2-tailed)
	<u>Mean</u>	<u>Std. Deviation</u>	<u>Std. Error</u>	95% Confidence Interval of the Difference				
				<u>Lower</u>	<u>Upper</u>			
Oct 2017 CD-RISC 10 – Mar 2018 CD-RISC 10	-.46154	4.66674	.91522	-2.34648	1.42340	-.504	25	.618

A one-way repeated measures ANOVA controlling for age, gender, and race was conducted to compare scores on the October 2017 CD-RISC 10 to March 2018 for the treatment group (see Table 21). There were no significant effects for time, $F(1, 24) = .254$, $p = .618$, multivariate partial $\eta^2 = .01$. There were also no other significant effects.

Table 21. Multivariate Tests Controlling for Age, Gender, and Race, Treatment Group Only

<u>Effect</u>		<u>Value</u>	<u><i>F</i></u>	<u>Hypothesis <i>df</i></u>	<u>Error <i>df</i></u>	<u>Sig.</u>	Partial η^2
Resilience Over Time	Wilks' Lambda	.990	.254	1.000	25.000	.618	.010

A second one-way repeated measures ANOVA was conducted using age, gender, and race as between-subjects factors and the mentoring/collaborations score as a covariate. There was a significant interaction between resilience over time and age, using $p < .10$ due to a one-tailed hypothesis, $F(3, 22) = 2.632$, $p = .081$, multivariate partial $\eta^2 = .305$ (see Table 22). The results show that resilience over time was dependent on age of the participant. All other factors were found to be not significant.

Table 22. Tests of Within-Subjects Effects for October 2017 and March 2018 CD-RISC 10, Treatment Group Only

<u>Source</u>	Type III Sum <u>of Squares</u>	<u>df</u>	Mean <u>Square</u>	<u>F</u>	<u>p</u>	Partial <u>η^2</u>
Resilience Over Time	21.126	1	21.126	2.235	.152	.110
Resilience Over Time *	19.763	1	19.763	2.090	.165	.104
Mentoring/Collaboration Score						
Resilience Over Time *	74.637	3	24.879	2.632	.081	.305
Age						
Resilience Over Time *	.662	1	.662	.070	.794	.004
Gender						
Resilience Over Time * Race	1.741	2	.870	.092	.912	.010
Error(Resilience Over Time)	170.177	18	9.454			

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

Results show that there was not a significant difference between comparison group and treatment group scores on the resilience scale. Results were analyzed for Research Question 2, comparing resilience of new teachers in the comparison group to the treatment group on the

March 2018 CD-RISC 10. Table 23 displays descriptive statistics of scores for the comparison group ($M = 31.85$, $SD = 4.593$) and treatment group ($M = 31.23$, $SD = 5.501$). A t -test indicated that there was not a significant difference, $t(50) = -.438$, $p = .663$, $r = .06$ (see Table 24).

Table 23. Group Statistics March 2018 CD-RISC 10

	<u><i>n</i></u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>Std. Error Mean</u>
Comparison	26	31.85	4.593	.901
Treatment	26	31.23	5.501	1.079

Table 24. Independent Samples T -test March 2018 CD-RISC 10 (Equal Variances Assumed)

<u>Levene's Test for Equality of Variances</u>		<u>T-test for Equality of Means</u>					<u>95% Confidence Interval of the Difference</u>	
<u><i>F</i></u>	<u><i>Sig.</i></u>	<u><i>t</i></u>	<u><i>df</i></u>	<u><i>Sig.</i> (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Difference</u>	<u>Lower</u>	<u>Upper</u>
.864	.357	-.438	50	.663	-.61538	1.40548	-3.43838	2.20761

Analysis of covariance (ANCOVA) was then performed on the scores for the March 2018 CD-RISC 10 to compare the level of resilience of the treatment and comparison groups, controlling for gender, age, and race. In addition to the assumptions of ANOVA reported previously, assumptions for ANCOVA include the influence of the treatment on the covariate measurement, reliability of covariates, a lack of strong correlations among covariates, a linear relationship between the dependent variable and covariate, and homogeneity of regression slopes. The first and second assumptions were addressed in the study design by matching the

groups and by selecting measurement tools that show high reliability and validity. For the third assumption, the Pearson correlation coefficient between MBI scores and the mentoring/collaboration summed score ($r = .10$) was low, indicating that these two covariates did not strongly correlate with one another. Grouped scatterplots for the March 2018 CD-RISC 10 showed a linear relationship to the MBI-ES and to the mentoring/collaboration summed scores. Finally, the interaction between the grouping variable and the MBI-ES indicated that the assumption of homogeneity of regression slopes was not violated, $F(1, 50) = .709, p = .404$ (see Appendix E). The interaction between the grouping variable and the mentoring/collaboration summed scores indicated that the assumption of homogeneity of regression slopes was not violated, $F(1, 50) = .002, p = .968$.

Results of the first ANCOVA test (see Table 25) showed no significant differences in resilience between the comparison group and the treatment group, $F(1, 50) = .125, p = .725, \eta^2 = .003$. A second ANCOVA test compared means using gender, age, and race as random factors. Group means did not differ significantly for gender, $F(2, 49) = .549, p = .700, \eta^2 = .556$ (see Table 26). Group means also did not differ for age, $F(3, 48) = .763, p = .650, \eta^2 = .659$. Neither did group means differ for race, $F(2, 49) = .036, p = .965, \eta^2 = .035$. Levene's test was not significant, $F(23, 28) = 1.189, p = .328$, therefore the assumption of homogeneity of variances was not violated. A third ANCOVA, adding the mentoring/collaboration score as a covariate (see Table 27) resulted in no significant effects for mentoring and collaboration, $F(1, 51) = .359, p = .554, \eta^2 = .014$.

Table 25. Tests of Between Subjects Effects, Comparison and Treatment Groups

Dependent Variable: March 2018 CD-RISC 10						
<u>Source</u>	<u>Type III Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>	<u>Partial η^2</u>
Corrected Model	34.111	2	17.055	.666	.518	.026
Intercept	2240.914	1	2240.914	87.507	.000	.641
MBI-ES	29.188	1	29.188	1.140	.291	.023
Treatment/ Comparison	3.210	1	3.210	.125	.725	.003
Error	1254.812	49	25.608			
Total	53012.000	52				
Corrected Total	1288.923	51				

Table 26. Tests of Between-Subjects Effects with Gender, Age, and Race as Factors

Dependent Variable: March 2018 CD-RISC 10						
<u>Source</u>	<u>Type III Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>	<u>Partial η^2</u>
Intercept	703.025	1	703.025	30.328	.000	.746
MBI	31.858	1	31.858	1.224	.278	.043
Treatment/Comparison	63.777	1	63.777	.477	.701	.515
Gender	89.176	2	44.588	.549	.700	.556
Age	30.587	3	10.196	.763	.650	.659
Race	6.162	2	3.081	.036	.965	.035
Treatment/Comparison * Gender	73.910	1	73.910	1.794	.274	.378
Treatment/Comparison * Age	55.331	3	18.444	.195	.893	.191
Treatment/Comparison * Race	169.459	2	84.729	1.829	.372	.676
Treatment/Comparison * Gender * Age	105.233	2	52.617	3.300	.370	.872
Treatment/Comparison * Gender * Race	19.450	1	19.450	1.227	.477	.567
Treatment/Comparison * Age * Race	231.870	5	46.374	4.228	.705	.990

Table 27. Tests of Between-Subjects Effects with Mentoring/Collaboration Score as Covariate

Dependent Variable: March 2018 CD-RISC 10						
<u>Source</u>	<u>Type III Sum</u> <u>of Squares</u>	<u>df</u>	<u>Mean</u> <u>Square</u>	<u>F</u>	<u>Sig.</u>	<u>Partial</u> <u>η^2</u>
Intercept	392.634	1	392.634	15.388	.001	.494
MBI-ES	33.754	1	33.754	1.266	.271	.046
Mentoring/Collaboration	9.562	1	9.562	.359	.554	.014
Sum Score						
Treatment/Comparison	63.756	1	63.756	1.048	.604	.687
Gender	92.594	2	46.297	.869	.619	.664
Age	39.479	3	13.160	.746	.630	.576
Race	6.373	2	3.187	.035	.966	.035

These quantitative data show that new teacher resilience of the treatment group did not increase significantly from October 2017 to March 2018, and that there were no significant differences between the comparison and treatment groups on resilience at the close of the study. However, qualitative results of the interviews evidenced that not only did the mentoring and collaboration provided by school librarians for new teachers impact the new teachers' resilience, but also that they were able to articulate how.

Isolation/Connection

The three librarians who were interviewed followed flexible schedules, giving them freedom to interact with their colleagues. This availability of the school librarian provided a dependable connection that could counteract the isolation of the classroom for the new teacher. One new teacher expressed her librarian's attitude as "I'm always here if you need anything... I got you. You're not alone, I'm here" (NT3@---HS). Another new teacher at the middle school

level expressed that her resilience was increased by having “a friendly face who comes and checks on you, usually at least once a week just saying, 'hey, how are things going?' and [offering] help and words of encouragement and support” throughout the first months of the school year (NT2@---MS).

For one school librarian at the middle school level, the personal relationship between the school librarian and new teacher contributed most to building resilience. “I think that personal piece helped. I think by partnering, by doing this project, it allowed us to build a stronger personal relationship [which] increases the ability to come and share the frustrations, instead of sitting in their room by themselves or going home and crying every night” (SL2@---MS).

Having a connection outside of their department “another person to come to” (SL2@---MS) was a benefit. Each new teacher had an assigned mentor, but the school librarian who was on a flexible schedule had more freedom to assist. “I gave them another place to go. When you're always asking the same person, then you feel like you're annoying them or bothering them (SL3@---HS). Said one new teacher, “I had other mentors, but I happened to really gain from working with [the school librarian]” (NT1@---ES).

Proximity to the library was a benefit to the relationship. “I worked with all three [new teachers], close in proximity to each other and to me. I could pop in and say hey, anything you need, let me know what I can help you with” (SL2@---MS). Visibility was important too. “Seeing me when I went up and down the hall, I could always stop and say are you doing okay?” (SL2@---MS). In contrast, the new teachers in a large high school were in classrooms far from the library. However, this physical distance could be counteracted by digital proximity, as evidenced by this new teacher, who was three floors above the library, “She just was always there. She always e-mailed me” (NT3@---HS).

Offering snacks, notes, and words of encouragement in a non-threatening atmosphere provided another opportunity to connect to the new teachers. Answering questions in a comfortable environment put in place yet another support. The new teacher at the high school felt that that this was important.

Any questions I have, whether to do with computer lab time, questions that people who've been here a long time probably don't think about. She never made me feel stupid. She's the only one that I can go to and just know that there's no judging. She's not my superior (NT3@---HS).

The new teacher at the middle school also appreciated a colleague to lean on.

When I experienced certain challenges, it was definitely good to have someone whom I felt could be just an objective listening ear...because sometimes you can just feel so alienated because everyone else knows each other and everyone else seems to have it so together (NT2@---MS).

Having a knowledgeable professional in the school library who was willing to take the time to listen contributed to the personal connection from the library to the classroom.

Provision of Resources

Being overwhelmed was a frequent theme of the new teacher interview results, at all three school levels. "I mean, when you're a new teacher, it can be overwhelming" (NT1@---ES). "As a first-year teacher, it can be just so overwhelming feeling you have so much on your plate all the time" (NT2@---MS). For some, this impacted the process of mentoring and collaboration. "Because we couldn't get together and [the new teachers] were so overwhelmed, like, I don't even know what to tell you I need right now" (SL2@---MS). Knowing what supports to ask for

was important. “A big helpful piece for me from the [school librarian] was knowing what to ask for” (NT1@---ES).

The role of the school librarian in recommending resources to these overwhelmed new teachers provided a support to build resilience. The new teachers found it difficult to identify what supports to request

because it can seem very overwhelming when you're told, ‘we're here to support you’ and ‘let us know what we can do’, but if you don't even know what to ask for or where to start with so many resources out there. Just being able to pinpoint resources was very helpful (NT1@---ES).

One new teacher at the middle school level felt that this provision of resources was directly “for resilience. She did bring over a list of library resources for a topic I was covering at the time” (NT2@---MS).

The new teachers felt that they lacked the depth of knowledge of the school librarian. At the same time, they understood that having a close relationship to the school librarian gave them more access to her resources. “I don't have this huge backpack to go into...She does, and many resources that I didn't know about, that teachers I'm sure who have been here for years maybe know about, maybe don't (NT3@---HS). “It's just always handy to have a lot of tools in your toolbox to pull from” (NT1@---ES). By identifying useful resources, the school librarian was able to reduce the workload of the new teachers. This provision of resources was “one less thing I had to do as a new teacher, one less thing I had to think about, something off of my plate which is a big part of resilience if you don't know anything” (NT3@---HS).

This provision took the form of physical, digital, and human resources. The high school librarian, who was formerly an English teacher, “would come into my [English] classroom and observe me and she would suggest materials and resources” (NT3@---HS). This new English

teacher “was very receptive to any time I [school librarian] had any kind of resource or idea or link” (SL3@---HS).

The school librarian retained a practical expertise that the new teacher lacked. For example, she was able to identify, using research in the field, books which would appeal to student subgroups. As quoted by her new teacher, “this study has shown that boys might like this and it's related to what you're doing, and girls might like this and they might be more apt to read” (NT3@---HS). This new teacher appreciated the provision of books for every day Sustained Silent Reading and timely resources related to her classroom curriculum, such as online resources and audiovisual materials related to the Holocaust. Access to digital technology was also important. “I [school librarian] was able to work with her [new teacher] in terms of scheduling the computers for her classes...We can't get you into the library but here, you can use this computer lab” (SL3@---HS). A middle school librarian was able to assist with a technology piece that her new teachers didn't quite know, while a high school librarian was able to troubleshoot some issues with students doing the practice items for standardized testing.

The school librarian, working in collaboration with the Instructional Technology Resource Teacher (ITRT), provided an added benefit to the new teachers. Said one new teacher,

I've been working a lot also with the ITRT, and I've been trying to identify good digital resources for special ed[ucation]. I know that [the librarian] teaches a lot of digital, internet skills and computer skills, so in that sense [working with the ITRT] is related [to the library] (NT1@---ES).

At the middle school level, the school librarian

...was able to introduce a few more pieces of equipment along with the ITRT, who is very active in here [the library] with me. [The ITRT] knows what I have, she works with me, and she's very active with the

teachers. I felt like [the new teachers] were very comfortable after me reaching out to them” to provide necessary equipment (SL2@---MS).

Modeling Teaching Behaviors

In addition to providing resources, one school librarian was able to model authentic integration of technology resources within a collaborative lesson, specifically for management of student behavior. At the elementary school level, providentially the school librarian and new librarian shared a subject area. Another colleague had recommended to the new teacher that she could go to [the librarian] for help because she was a former special education teacher. This special relationship was brought forth by the school librarian:

When I talked about having to collaborate, it really came at a good time, because [the new teacher] was trying to figure out what she should do in reading groups, and how she should utilize her time based on what the IEP requires. I modeled a lesson for her, and then we collaborated on what she could do to improve her lessons with the children. She was really receptive to that, and I think she started to try some of the strategies, but she felt a little bit better and a little more confident.

There was one student that [the new teacher] considers a difficult student. She didn't have any behavior plan or anything to monitor behavior and encourage positive behaviors. So when I went in, I had a gumball machine with some marbles. I explained to him [that] it was a reading lesson. I used the iPads which she hadn't done, she hadn't incorporated technology, so that helped him want to be more into [the lesson]. [The difficult student] was really receptive, we didn't have any difficulties and then as I questioned him, he was even a little bit more into the lesson. And then he was intent, he kept looking to see if he earned a gumball because I would mention, remember you can earn three gumballs with this lesson. [The new teacher] was able to see that there was a way to get to him. So that day he read for me, he answered questions for me. It was a good lesson. (SL1@---ES).

Unfortunately, when asked about follow-up, the librarian stated that she offered the gumball machine to the new teacher, who left without it and never came back for it. However, the new teacher felt that the librarian's "experience in special education was definitely very helpful to me...just learning different strategies, because you don't know what strategy might speak to what kid" (NT1@---ES).

Looking Back/Looking Forward

This growth in resilience was brought forth by one new teacher.

I wanted to be with these kids, and I love the kids. Just having one person makes such a difference. [For us] to look back and both be like, oh, I was good at this and, oh, what was I thinking? I'm in such a different place now [in March] than I was even in September (NT3@---HS).

One new teacher felt that while she may not have used her school librarian as resource to the fullest this year, she would in the future. "I think [new teachers without a school librarian to provide support] are missing out on a resource that's there, particularly in the future" (NT2@---MS).

This future benefit of collaboration with the school librarians was not overlooked by these new teachers.

I feel like now that I got my sea legs under me after my first year and I already have the lesson plans written and materials built. Going back and trying to revamp my lessons and make them better, I know that [my school librarian] is a resource there. I definitely think that collaboration could occur with her, and I know that she has a bunch of resources for me to use. I think next year I won't feel like I'm drowning. I think we'll be able to build a better relationship and be able to use more of the resources that she has available, in the future. (NT2@---MS).

This teacher felt that the benefit of the interventions would extend into the following year.

Despite the lack of quantitative evidence of building resilience, these new teachers and school librarians were able to voice the positive effects of the implementation of the Continuum of Care model. They understood the isolation of the classroom, and the effect of the connection to the school librarian, who was able to provide resources and model teaching behavior. Both the new teachers and the school librarians were able to look back to reflect on their experience together, and look forward to a future partnership of collaboration.

Research Question 3

Qualitative and quantitative findings for Research Question 3 are presented in this section. Results are presented comparing burnout of new teachers in the treatment group to burnout of new teachers in the comparison group at the close of the study. Factors taken into consideration include level of mentoring/collaboration, gender, age, and race.

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

Results show that there was not a significant difference between the comparison group and treatment group scores on the burnout inventory. Results of the March 2018 MBI-ES were analyzed for Research Question 3, comparing burnout of new teachers in the treatment group to

the comparison group at the close of the study. Scores for the March 2018 MBI-ES ($N = 52$) were independent, and the data were measured at the interval level. A preliminary analysis showed that there were no missing data or outliers. A Kolmogorov-Smirnov test indicated that scores did not deviate significantly from normal, $D(52) = .070, p = .200$. Levene's test was not significant, $F(50) = .048, p = .828$. Therefore, the assumption of homogeneity of variances was not violated.

Table 28 displays the comparison group mean ($M = 11.73, SD = 2.238$) and the treatment group mean ($M = 12.08, SD = 2.328$) for the March 2018 MBI-ES. An independent samples t -test (see Table 29) indicated that there was not a significant difference between the comparison and treatment group scores, $t(50) = .552, p = .583, r = .10$, a small effect size.

Table 28. Group Statistics March 2018 MBI-ES

	<i>n</i>	Mean	Std. Deviation	Std. Error Mean
Comparison	26	11.73	2.238	.439
Treatment	26	12.08	2.328	.457

Table 29. Independent Samples T -test March 2018 MBI-ES (Equal Variances Assumed)

Levene's Test for Equality of Variances		T -test for Equality of Means					95% Confidence Interval of the Difference	
<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
.048	.828	.552	50	.583	.350	.633	-.923	1.622

An analysis of covariance (ANCOVA) test was performed on the scores from the March 2018 MBI-ES to compare the level of burnout of the treatment and comparison groups. As an assumption for these tests, the covariate and treatment effects were independent. Results of the ANCOVA (see Table 30) showed no significant differences in burnout between the comparison and treatment group scores on the MBI-ES, $F(1, 50) = .236, p = .629, \eta^2 = .005$.

Table 30. Tests of Between-Subjects Effects March 2018 MBI-ES

Dependent Variable: March 2018 MBI-ES						
<u>Source</u>	Type III Sum of Squares	<i>df</i>	<u>Mean Square</u>	<i>F</i>	<u>Sig.</u>	Partial η^2
Corrected Model	7.515	2	3.758	.723	.491	.029
Intercept	248.683	1	248.683	47.823	.000	.494
March 2018 CD-RISC 10	5.927	1	5.927	1.140	.291	.023
Treatment/Comparison	1.226	1	1.226	.236	.629	.005
Error	254.806	49	5.200			
Total	7636.200	52				
Corrected Total	262.321	51				

A second ANCOVA tested the differences between the comparison and treatment group means, adjusting for covariates. Adding the mentoring/collaboration score as a covariate did not produce significant results, $F(1, 50) = .086, p = .771, \eta^2 = .003$ (see Table 31). Tests of between subjects effects for burnout were not significant using gender, age, and race as random factors. The interaction between treatment/comparison and gender did not produce significant results $F(1, 50) = 2.688, p = .211, \eta^2 = .502$. The interaction between treatment/comparison and age also did not produce significant results $F(3, 48) = .964, p = .608, \eta^2 = .728$. Additionally, the

interaction between treatment/comparison and race did not produce significant results $F(2, 49) = 2.115, p = .812, \eta^2 = .974$.

Table 31. Tests of Between-Subjects Effects March 2018 MBI-ES, Covariate Mentoring/Collaboration Score

<u>Source</u>	<u>Type III</u>			<u>F</u>	<u>Sig.</u>	Partial <u>η^2</u>
	<u>Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>			
Intercept	280.835	1	280.835	38.709	.000	.804
Mentoring/Collaboration Score	.466	1	.466	.086	.771	.003
Treatment/Comparison	4.962	1	4.962	.402	.639	.282
Gender	20.524	2	10.262	1.213	.561	.738
Age	10.407	3	3.469	.549	.682	.351
Race	12.834	2	6.417	2.078	.315	.659
Treatment/Comparison * Gender	7.892	1	7.892	2.688	.211	.502
Treatment/Comparison * Age	18.961	3	6.320	.964	.608	.728
Treatment/Comparison * Race	5.763	2	2.882	2.115	.812	.974
Treatment/Comparison * Gender * Age	8.321	2	4.161	1.377	.515	.732
Treatment/Comparison * Gender * Race	.079	1	.079	.026	.897	.025
Treatment/Comparison * Age * Race	24.124	5	4.825	2.649	.774	.988
Treatment/Comparison * Gender * Age * Race	3.016	1	3.016	.559	.461	.020

Results of the qualitative data for burnout were analyzed using the same four themes which arose from the interview data for resilience. Review of the qualitative data did show that burnout was seen by the new teachers as the inverse of resilience, as evidenced by one new elementary school teacher, “resilience, burn out, they kind of go hand in hand” (NT1@---ES).

Isolation/Connection

The empathy shown by the school librarian reminded the new teachers that “this feeling [of burnout] is not unique, but everybody feels like this” (NT3@--HS). Without the school librarian’s support “just being able to push through for the year, I think would have been a greater struggle” (NT1@--ES).

One intervention which brought pleasure to both the new teachers and the school librarians was the sending of an e-card greeting to the new teachers just before the winter holidays. “I think the e-card probably made a difference” (SL2@---MS). This librarian sent an e-card of meerkats hopping up and down, singing a silly song (SL3@---HS). She felt that this silliness was important because being in a new work environment may make it difficult to judge the sense of humor of colleagues.

It makes you laugh and it makes you feel lighthearted. And it makes you feel able to approach that person, whereas before you might not have. So I really think that those e-greetings really had a good [effect] because when you know there's somebody that you could maybe laugh about things going on with – that kind of puts the burnout at bay. (SL3@---HS).

Provision of Resources

The school librarian being available, which led to provision of resources, also was a factor in reducing burnout for these new teachers because “people are not so approachable or helpful” (NT3@---HS). The new teacher at the middle school level appreciated the support from the library.

“Without that support [from the school librarian] and without knowing what's available to you can make you feel like you have to go out and make everything on your own and you have to create all these amazing manipulatives and different materials that really are there for us to use” (NT2@---MS).

This same new teacher's school librarian agreed that of all the interventions,

...sharing resources [most influenced new teacher level of burnout positively] because when it was crazy in their department, [the new teacher] was very grateful for the few extra things we were able to give her. So I think having the resources available and not having to look for them probably lessened the stress a little (SL2@---MS).

The depth of knowledge of the school librarian, “knowing that the librarian has so much background knowledge beyond just books” (NT2@---MS) was seen as helpful. This provision of resources would reduce the workload of the new teacher, which in turn may affect burnout.

“Prep time can, hypothetically, be cut down in the future because you know that you have that resource there versus someone who doesn't have that relationship with their librarian” (NT2@---MS).

This sharing of knowledge was particularly effective when the new teacher and the school librarian shared a subject area background. When asked how her new teacher differs in burn out as compared to new teachers who lack this support, one school librarian responded:

I'd have to go back to special ed[ucation] because it is a whole different world. She has to get information from teachers who may not always be forthcoming with the information when she needs it. So I think that she's more stressed, she's dealing with legal documents and legal papers. I was a special ed[ucation] teacher before, and I'm a school librarian, so I also have resources to help [her] out. I would send her an e-mail saying, I can also pull resources from special ed[ucation]. The [special education] connections that we had, helped. So me being able to connect with her at that level, saying I was a special ed[ucation] teacher before...reduced burnout (SL1@---ES).

Another factor important to avoiding burnout was the development of coping mechanisms so as “not to lose your brain” (NT3@---HS). Examples of stress relievers to “do for you today” (NT3@---HS) suggested by the school librarian to her new teacher included putting down the work and walking away, going for a run, going to the gym, or taking a break for some food or drink. According to her new teacher, the school librarian advised “Make sure you’re taking care of yourself first. Put the lifejacket on you first before you put anyone else’s on because you can’t help anyone if you’re drowning” (NT3@---HS).

One school librarian at the high school level was assigned two new teachers who differed in their reception of the interventions. She felt that the teacher who was less receptive to treatment, who had the added responsibility of coaching and fundraising for the softball team, “looks tired to me, all the time. She looks more burned out than the English teacher [who was receptive to treatment] for sure.” On the other hand, the English teacher [who was receptive to treatment], did not show “a dread walking into work,” or burnout, at the end of the school year “beyond what everybody has” (SL3@---HS).

Modeling Teaching Behaviors

Interestingly, modeling teaching behaviors did not openly arise as a topic for burnout during any of the six interviews. New teachers and school librarians did skim around this theme when discussing empathy, provision of resources, and common previous licensure. However, results did not show that they directly connected the school librarian as a role model to new teacher burnout.

Looking Back/Looking Forward

The new teachers at all school levels felt that the contributions of the school librarian contributed to their ability to endure the challenges of their first year. One new teacher at the elementary school level felt that, without the school librarian, “I would have burned out much more quickly than if I hadn't had the support” (NT1@---ES). A new teacher at the high school level felt that without the support of the school librarian, “I wouldn't have a lot of the answers, certainly not easily” (NT3@---HS). At the middle school level, a new teacher summed up her situation at the closing of the school year, “I'm still here so I guess I haven't burned out. I'm still kicking” (NT2@---MS).

Research Question 4

Findings for Research Question 4 are presented in this section. Results are presented comparing retention of new teachers in the treatment group to retention of new teachers in the comparison group.

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

No significant differences were found for intent to return between the comparison group and treatment group. Binary logistic regression was performed to assess the impact of a number

of factors on the likelihood that respondents would report their intent to return. The model contained three independent variables (gender, age, and race). The full model containing all predictors was not statistically significant, $\chi^2 = (3, N = 52) = .779, p = .854$, indicating that the model was not able to distinguish between respondents in the comparison and treatment groups. The model as a whole explained between 1.5% (Cox and Snell *R* square) and 3.2 % (Nagelkerke *R* squared) of the variance in intent to return, and correctly classified 90.4% of cases.

As shown in Table 32, none of the independent variables made a unique statistically significant contribution to the model. The odds ratio for gender, age, and race were the same as none were significant. Since logistic regression is sensitive to high correlations among predictor variables, multicollinearity was analyzed for gender, age, and race (Pallant, 2016). Tolerance was analyzed as an indicator of how much of the variability for the specified independent was not explained by the other independent variables in the model. Calculated tolerances were greater than .10 for gender (.880), age (.866) and race (.982), indicating that multiple correlation with other variables was low. Variance inflation factors well below 10 for gender (1.14), age (1.16), and race (1.02) also indicated that multicollinearity was not a concern.

Table 32. Logistic Regression Predicting Likelihood of Intent to Return

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio	95% C.I. for Odds Ratio	
							<i>Lower</i>	<i>Upper</i>
Gender	-1.143	1.514	.571	1	.450	.319	.016	6.194
Age	.013	.618	.000	1	.983	1.013	.302	3.400
Race	.082	.417	.038	1	.845	1.085	.480	2.454
Constant	4.240	3.750	1.278	1	.258	69.395		

Results of analysis of the qualitative data show that both new teachers and school librarians felt that the process of mentoring and collaboration between new teachers and their school librarians could increase retention of new teachers. As one school librarian put it, “If you want to keep teachers and you want to help mold them, it doesn't have to be just someone on their grade level” (SL1@---ES).

Isolation/Connection

For retention, the interview data showed that reception of the treatment “definitely greatly increased my interest level” to return next school year (NT1@---ES). “I would just say the mentorship [most influenced intent to return next year]. It definitely made this environment more pleasant which is encouraging for me to come back” (NT2@---MS).

That human relationship and being able to reach out to somebody brings survival. [The new teachers working with the school librarians] have more support, and they feel like they have more support. I feel like their survival skills are possibly higher than someone that has no support (SL2@---MS).

Working with the school librarian “influences you in your confidence” (NT3@---HS).

The personal connection made to the school librarian helped to mitigate the new teacher’s sense of isolation, “just that feeling of loneliness or being on your own in the middle of an ocean” (NT3@---HS). The new teachers felt this aloneness in the classroom, commenting that “I don't see everyone, I don't talk to people” (NT3@---HS), and “special ed[ucation] is a very lonely profession. [It] can be very hard when you feel stuck on an island on your own,” (NT1@---ES). This new teacher felt that connection strongly,

You always need – especially in your first year- someone to connect with, someone to talk to, someone to be able to run ideas by. Someone who understands what you're going through and then someone who can help you go through what you're going through by providing resources, providing answers to many questions that you might have as a first-year teacher (NT1@---ES).

Both the school librarians and the new teachers expressed that the process of mentoring and collaboration helped the new teacher's intent to return "tremendously" (SL1@---ES), "just little things. It just makes you feel not alone" (NT3@---HS). "The human connection– it's kind of a big deal, knowing somebody's there if you need them" (SL2@---MS). For one new teacher who felt that she did not fit in with her teaching team, "just knowing that I had someone to turn to. Because [not fitting in] sometimes can be very hard (NT1@---ES).

One new teacher at the high school level appreciated the contribution that the school librarian made to her decision to return the following school year.

So if I didn't have [the school librarian], I would be thinking about coming back here, or if I want to go to another school where I am going to be supported. She's just so helpful. Without that, I don't know that I would teach again (NT3@---HS).

The school librarian was seen as a particularly supportive colleague for the new teachers, with a role that was different from other teachers. "I have the support, I have this person that I can go to who's not going to judge me. And it makes a difference when you think about it" (NT3@---HS). This non-threatening, neutral stance of the school librarian was one factor in retention. For the new teacher, "I'm just some lady over here in the library that she can come to and talk to (SL1@---ES).

At the high school, the school librarian was able to influence retention by reaching out with a "little something, pick me up" (SL3@---HS). She sent cards and emails to say "hey,

how's your day going?" (NT3@---HS) and put candy in their mailboxes for Valentine's Day. This helped to bridge the gap between the classrooms on the upper floors and the library on the first floor. One new teacher had thoughts about moving to another school or district, or even returning to her former job in curriculum design. But the constant reassurance from the school librarian was "huge," helping her to see that she could make a career of teaching (NT3@--HS).

Setting aside time to talk, being "available and approachable" (SL3@---HS) with the new teachers also influenced retention. When the new teacher felt like she couldn't go on, she knew that there was someone to turn to with questions or concerns (NT1@---ES). Having the school librarian there to say, "don't jump yet, let's talk it through" carried the teacher through the day. The school librarian taking time to listen resulted in seeing the weight lifted from the new teacher's shoulders, leaving her in better spirits for the rest of the day's challenges (SL1@---ES).

Provision of Resources

Both the institutional knowledge and the professional knowledge retained by the school librarian helped when providing the necessary supports for the new teachers. Sharing information about school policies and procedures, such as how to sign up for computer labs, saved time and energy for the new teachers. One new teacher at the middle school level pointed out that it was best to provide one or two highly rated resources, such as a website to explore the ocean layers, rather than overwhelming the new teachers with long lists. Additionally, timely response to requests for resources was key, as was delivery of the resource that best matched the teacher's needs, whether from the library shelf or through interlibrary loan. "It's just the type of thing that you think about when you're [considering], am I coming back?" (NT3@---HS).

Modeling Teaching Behaviors

Several areas of teacher skills development contributed to increase retention. Developing the ability to assess as an ongoing process and make needed changes to lessons with reassurance and assistance from the school librarian was an area that one new teacher felt increased her intention to return to her current position the following year. Another new teacher appreciated her school librarian's guidance "to better navigate the world of special education in order that I can find my way" (NT1@---ES). She felt that scheduling time with her special education students was "tricky" and that her school librarian gave her "some really useful tips for how to maximize my short time with my students" (NT1@---ES). A third area that was helpful for her was parent interactions "because if you're not careful, it could be very easy for a parent to misinterpret what you say and then it could not be good for you" (NT1@---ES).

Looking Back/Looking Forward

Looking back, the school librarian at the middle school level expressed that the resources made available to the new teachers influenced retention in that they had a better idea how these resources could be implemented in the following year. She felt that, while the new teachers may not have had time in their first year to fully integrate the resources, they looked forward to more exploration and hoped to make better use of the resources in their second year.

At the elementary level, one new teacher based her intent to continue in the profession on the interventions that she received from her school librarian. Without this support, she was not sure that she would be able to continue going in this field. At the high school level, a new

teacher felt that the support she received from her school librarian made her rise to a higher level. Not only did she need to meet to this goal, but she needed to feel that she was “up to par because that's a whole part of burn out and resilience. If I don't feel like I'm doing a good job and I know I'm good at something else, I'm going” (NT3@---HS).

Conclusion

This chapter presented the results of analysis of both the quantitative and qualitative data. The next chapter will discuss these findings as they relate to mentoring and collaboration for new teachers in the authentic context. Implications for the professional development of new teachers in practice will be suggested based on these findings. In closing, recommendations for future research will be presented.

CHAPTER V DISCUSSION

This final chapter discusses conclusions drawn from the findings presented in Chapter IV by research question. The chapter then discusses implications, recommendations, and comments on causal research in the field. Next, the chapter delineates limitations and suggestions for further research. Chapter V ends with conclusions.

Discussion by Research Question

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

Scores on the resilience scale for new teachers who received standardized interventions from the school librarian did not differ significantly from October to March of the school year. However, the data indicate that the practices of the school librarians who served as interventionists did have an effect on new teacher resilience. During the interviews, both the school librarians and the new teachers spoke to this effect.

Resilience scores show that the new teachers in the treatment group did evidence a slight increase in resilience. This increase was not significant, and the effect size was small, but the new teachers' resilience scores did move in a positive direction. Four months of treatment under the Continuum of Care model appears to be not enough time to make a statistically significant difference in resilience scores for the treatment group. However, it was enough time to effect

some change in these new teachers' resilience levels. A similar study of teachers (Lantieri et al., 2011), who participated in mindfulness activities over twenty seven weeks, produced statistically significant results, indicating an impact on reduced stress levels, increased level of attention and mindfulness, and strengthening relational trust with colleagues. For this current study, given the seventeen week time frame of the interventions, a positive move on the resilience scale points to the opportunity for a longer time span of interventions, which may then result in a statistically significant change in resilience.

The new teachers in this study who received interventions from their school librarians under the Continuum of Care model conceivably would have benefited from a longer time frame of interventions with more data points over several years. As described in the previous chapter, one new teacher at the middle school level spoke directly to continuing to build her relationship with the school librarian, using the provided resources in her second year, and even on into the future. Her librarian felt that the new teachers did not have time in their first year to fully integrate the resources, but they looked forward to more exploration and better use of the resources in their second year. The new teacher at the elementary school level also voiced her wish that she had more time with her school librarian. All three of these point to time as a factor for implementing the Continuum of Care model. Given a longer time frame, it may be possible to move the new teachers' levels of resilience to a greater degree, and even to make a significant difference.

Gabi (2015) cited workload and time constraints as the biggest stress risk for a sample of 150 urban teachers. She found that resilient teachers' time per week spent on work-related activities was lower than that of at-risk teachers who experienced more frequent emotional symptoms of stress. The results of this current study also show that time is an important

consideration for working with new teachers. Under the current model, two months were allowed for mentoring and two more months for collaboration. Within this time frame, there were 14 scheduled interventions for mentoring and 14 for collaboration. This set a high expectation for time allotted by the school librarians and new teachers to work under the Continuum of Care model. Additionally, an unusual amount of foul weather closed the schools for an unexpected number of days. Given the unrelenting pace of the school calendar, opportunities for interventions lost were frequently not recoverable. This may have contributed to the lack of the treatment reported by several new teachers in the treatment group, which would have impacted their level of resilience.

The school librarians defined their relationship to their new teachers as extending beyond the calendar of interventions for this study, and on into the next school year. At the middle school level, the school librarian identified a “degree of resilience” in looking forward to another year. “They’re thinking, how can I improve the lesson and use these [resources]?” (SL2@---MS). The high school librarian who had difficulty connecting to one of her teachers, did not feel that this relationship was completely lost.

I don’t think she fully realizes yet the support that she does have from the media staff... I know that can change, and I’ve seen it with some teachers over the years where their first year, they’re kind of standoffish, or they just don’t see the benefit of the library. But then they start to be around enough and see the benefits of having [the library] and having [the librarians], and we’re able to connect later (SL3@---HS).

The librarian felt that with some work, this new teacher would be more open to collaborating in the future.

This evidence points to opening up the application of the Continuum of Care to early career teachers in their second, or even third year under contract, which would set a more reasonable pace for the interventions to occur. The demands of the first year of teaching can be overwhelming, as stated by the new teachers in this study. Expanding the Continuum of Care over a longer time frame, perhaps with mentoring in the first year and collaboration in the second and third, may reduce the short-term stress, resulting in greater collaboration over the long term. A follow-up program evaluation which is currently under analysis includes questions regarding timing and the number of interventions in the model. Results of the program evaluation will shed further light on the effect of time on implementation of the Continuum of Care model and determine whether extending the time frame would benefit the model.

There was a significant interaction between change in resilience over the course of the study for the treatment group, and age of the new teacher. However, the magnitude and direction of this interaction was not determined under this analysis. Teachers in the treatment group did tend to be older than the national data would predict. Sixty-two percent of the treatment group was less than thirty years old. In contrast, the Beginning Teacher Longitudinal Study data show that 71% of new teachers nationwide were less than 30 years of age in school year 2007-2008, the most recent data available (Raue and Gray, 2015). During the present study, one “not young” new teacher in the treatment group spoke to age as a factor, as cited in the previous chapter. She felt that others assumed that she had higher skill levels due to her age, disregarding her lack of experience. Unfortunately, a search of the literature revealed no studies which analyzed the influence of age on resilience for any teacher population. The results of this study point to the need to consider age in years as a factor for new teacher resilience.

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

Scores on the resilience scale for new teachers who received standardized interventions from the school librarian did not differ significantly from scores for new teachers not formally supported by the school librarian. However, the data indicate that implementation of the Continuum of Care model did have an effect on the resilience of new teachers in the treatment group.

Group means for resilience scores did not differ significantly for age when comparing the treatment to the comparison group in March of the school year. However, the treatment group did tend to be younger than the comparison group. Sixty-two percent of the treatment group was less than thirty years old, while 46% of the comparison group was less than thirty years old. Given that the interaction between resilience over time and age for the treatment group was found to be significant, further investigation seems warranted. The relative youth of the treatment group to the comparison group may, in some way, have influenced their resilience levels. Since recruitment of participants was the responsibility of the school librarians, it is also possible that age was at play in the assignment of individuals to the treatment group. A randomized control trial, along with a larger sample size, would minimize these group differences. It is also possible that growth in resilience may proceed at varied paces among individuals and over time. Expanding the time frame of this study to several years with more data points would provide the opportunity to compare the pace of development of resilient qualities between the two groups.

The interview data show that not only did the mentoring and collaboration provided by school librarians for new teachers impact the new teachers' resilience, but they were able to articulate how. The role of the school librarian as the provider of resources "for resilience" appeared several times in the qualitative data. The new teachers in the treatment group appreciated those interventions which included gathering materials for their classroom lessons. They saw this not only as a reduction of their work load, but also as targeted support from an expert in the field who has a "backpack" or a "toolbox" to pull from, which the new teachers felt that they lacked. Indeed, the new teachers expressed the overwhelming feeling of not even knowing what supports were available, or "not knowing what to ask for."

When curating resources for interventions, the least helpful action by the school librarian was disseminating a long list of resources, which the new teachers found overwhelming. The most helpful assistance came from providing one or two carefully selected resources at point of need. This pinpointed approach was most successful when the new teacher's needs were met in a timely fashion to support specific content learning objectives. This provision of resources was most evident in the mentoring phase in which the school librarian performed a needs assessment to connect the new teacher to appropriate physical, digital, and human resources.

The Continuum of Care model did not specify how school librarians were to provide resources in response to the needs assessment. However, the evidence indicates that this is an important consideration. For teachers already overwhelmed by the demands of their new positions, offering only a few of the best resources which will be most pertinent to the teacher's lesson planning may be established best practice for this special population. As needed, the school librarian may then follow-up to recommend further resources, which would expand the new teacher's repertoire without causing undue stress. Educators of school librarianship can

direct the field to better train pre-service school librarians to use this pinpointed approach when providing resources for new teachers.

The school librarians and new teachers spoke to their belief that their personal connection under the Continuum of Care made a difference in their professional lives. The middle school librarian recognized that discovering shared family roles and activities connected her more closely to one of her new teachers. A strong bond also formed when the school librarian had past teaching experience in the same subject area as her new teacher and served as a model for teaching in that area. A close relationship to the school librarian gave the new teachers greater access to the library's resources as well as the librarian's expertise and institutional knowledge, both during the study and for the future.

In addition, the mentoring and collaboration received made an impact on new teacher resilience. As one new teacher said, "you need a mentor and you need to collaborate with others... this is a job that you cannot do on your own" (NT2@---MS). The elementary school librarian pointed out that "she trusts me more than she did at the very beginning ... She comes in whenever she needs to and asks can she talk ... it helped" (SL2@---MS). The new teacher at the high school also spoke of this personal connection, "I think just the personal things [influenced resilience], her checking up, sending a card or a little note or a snack here and there, the very personal things ... she just went above and beyond" (NT3@---HS).

This "pivotal role" of relationships is the sustenance new teachers need to maintain personal wellbeing and professional effectiveness (Johnson et al., 2016). The essence of new teacher resilience may lie in these personal and professional connections established during the first year. The "pivotal role" of the school librarian in providing interventions for new teachers under the Continuum of Care model provides the opportunity to build resilience in new teachers.

Relationships developed under the model contribute to the personal welfare and efficacy of the new teachers who receive these interventions.

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

Scores on the burnout inventory for new teachers who received standardized interventions from the school librarian did not differ significantly from scores for new teachers not formally supported by the school librarian. However, the qualitative data indicate that the school librarians who served as interventionists did have an effect on reducing burnout of new teachers in the treatment group.

Gavish and Friedman (2010) found that the school organizational culture, particularly a lack of collaborative and supportive ambience, contributes meaningfully and significantly to predicting burnout for new teachers. Under the Continuum of Care model, the school librarians sought out new teachers to structure a supportive working environment in which the new teachers could function effectively. Through mentoring and collaboration, the school librarians were able to influence burnout in new teachers by sharing their expertise and institutional knowledge, and through friendly professional interactions. The school librarian reaching out to the new teachers with extrinsic and intrinsic motivators and a shared sense of humor helped to mitigate the stresses of the daily life of the classroom teacher.

Provision of resources at the school level has also been noted as an effective structure to mitigate burnout. Schools that lack resources, such as physical materials and professional

development, may become trapped in a cycle of burnout and turnover (Kim et al., 2017). The school librarian can act to reduce new teacher burnout through the provision of carefully selected resources which support classroom instruction. Thus the school librarians in this study who connected their new teachers to physical, digital, and human resources contributed to reducing the new teachers' level of burnout.

A shared subject area between the school librarian and new teacher did make a difference for burnout of at least one new teacher. The elementary school librarian and new teacher who shared special education as a specialty area were able to connect at this level. The librarian was able to provide direct subject area support, thus reducing burnout. The impact of sharing a subject area also surfaced at the high school level, where the school librarian and one new teacher who shared English as a subject area were able to work well together, but the new teacher in another subject area was not as accepting of the librarian's attempts at intervention. Interestingly, at the middle school level the three new teachers shared a subject area, but their school librarian, who had difficulty implementing the interventions, did not share this subject area. Given that all of the librarians in this study were licensed in at least one other subject area, the educational background and subject area experience of the school librarian may provide even more opportunity for reducing burnout when implementing the Continuum of Care.

Surprisingly, modeling of teaching behaviors did not directly arise as a qualitative theme for burnout, perhaps indicating that new teachers and school librarians did not recognize the effect of modeling on burnout, although they did speak to this factor for resilience and retention. The school librarian who modeled a lesson for her new teacher recognized this sharing as resilience building but was not able to make the inverse connection to mitigating burnout. A link between access to a role model and burnout may exist. However, it is conceivable that the bridge

between these two concepts is so wide that both the new teachers and their school librarians were not able to recognize it. Educators in the field of school librarianship may need to scaffold pre-service school librarians to connect resilience building to burnout alleviation when mentoring and collaborating with new teachers.

An inverse relationship of resilience to burnout was a fundamental assumption of this study. The interview data indicate that burnout was seen by the school librarians and new teachers as the inverse of resilience. This concept was voiced by one new teacher, who asserted that resilience and burnout “go hand in hand”. However, analysis of the data to determine whether this relationship held true for this study population was not within the confines of this study. Further analysis of the data will determine the relationship between burnout and resilience for this sample of new teachers.

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

Intention data for new teachers who received standardized interventions from the school librarian did not differ significantly from scores for new teachers not formally supported by the school librarian. However, the data indicate that the school librarians who served as interventionists did have an effect on reducing attrition of new teachers in the treatment group.

While the interventions applied under the Continuum of Care model did not make a statistically significant difference for new teacher intent to return, this difference surmised only one more new teacher in the treatment group intending to leave, than in the comparison group.

Given the small sample size, it is not surprising that little difference was found between the means. Additionally, retention of new teachers was represented by the notice of intent issued in March of the school year. This “intent” to return in March may not be a true measure of those new teachers who actually returned in August and remained in the field for the following school year. Plans are underway to collect retention data for this group of new teachers. A larger sample size would also provide a more accurate snapshot of the influence of implementing the Continuum of Care model on new teacher retention.

Teacher resilience is influenced by the support and recognition of significant colleagues (Day & Gu, 2014). The school librarian is in a unique position to put in place structures that bolster and strengthen teacher resilience. The interview data show that school librarians and new teachers believed that implementation of the Continuum of Care influenced retention. Rather than being “stuck on an island” of loneliness, the new teachers felt supported through their personal connection to the school librarian. Through mentoring and collaboration, the new teachers had a knowledgeable partner to turn to in times of need, which influenced their decision-making process when considering their future employment status. Teacher attrition can be disruptive to the school environment and have a negative effect on teacher quality by undermining the sense of community in the school (Raue & Gray, 2015). School librarians can play a role in reducing attrition of those new to the field, contributing to a more cohesive school environment and better quality of teaching.

New teachers should not necessarily be expected to put into practice those skills generated by the Continuum of Care in their first year. As they reflect on their practice from one school year to the next, new teachers may revisit the skills and knowledge learned in their first year, to be applied in following school years. The relationship developed between the school

librarian and the new teacher in the first year opens the opportunity for further collaborations in the years to come. By expanding the Continuum of Care model over several years, school librarians would have more opportunity to work with new teachers in a mentoring and collaborative role.

Implications

New teachers in the treatment group received significantly more mentoring and collaboration than new teachers in the comparison group, indicating that providing a model of interventions directly affects the professional development of new teachers. In addition, interview data evidence that new teachers and school librarians saw a mentoring and collaborative relationship as valuable for new teachers. Mentoring was implemented more readily than collaboration. Indeed, for the treatment group, the mean mentoring score was higher ($M = 5.50$, $SD = .989$) than the mean collaboration score ($M = 5.35$, $SD = .891$). Formative data indicate that librarians in secondary schools faced greater challenges when implementing the Continuum of Care. At the elementary level, the school librarian was able to model, but not co-teach, a collaborative lesson which skillfully weaved technology and behavior management into a reading lesson. However, at the middle school level, the school librarian thought the personal relationship was important, but readily admitted that “the collaboration piece was very little...there wasn't a lot of collaboration, unfortunately” (SL2@---MS). At the high school level, making arrangements to collaborate also proved to be difficult, “as far as an out and out collaboration-that just didn't work out” (SL3@---HS). An investigation of the barriers and enablers to collaboration at varied school levels seems warranted. Educators of pre-service

librarians should consider challenges and enablers in the school ecology as factors in collaborative practice when supporting new teachers.

The perceived amount of mentoring and collaboration received by new teachers in both groups influenced the results of the study. Data from the March questionnaire show that in three cases, new teachers in the treatment group did not receive the full treatment. The data also show that teachers in the comparison group received some form of mentoring and collaboration from their school librarian. This is remarkable as this school district's job description for school librarians does not mention either mentoring or collaboration, although it does reference partnership with the classroom teacher (Tidewater City Public Schools Library Media Center Handbook, 2016). However, national school librarian standards in place at the start of this study emphasize promotion of collaborative partnerships, and leadership from the peer level (AASL, 2009). This diffusion of the treatment in the comparison group, and lack of intervention in the treatment group, may have affected the resilience and burnout scores of new teachers. It also indicates that school librarians in this district view some unidentified form of mentoring and collaboration as necessary for new teachers in practice, even though it is not an assigned duty.

From the beginning of the study, concerns were raised that non-librarian responsibilities would create barriers to implementing the Continuum of Care model. One school librarian spoke openly from the start. She acknowledged that her extra duties as standardized testing chair for her school left little time in her schedule to mentor her new teachers, and even less time for collaboration. Both formative and summative data indicate that school librarians in this district who served as building chair for mandated state testing found connecting with their new teachers to be more difficult than expected. Additionally, the pressure on new teachers to prepare students

for testing presented another barrier to collaboration. Further study to investigate the influence of standardized testing on the practice of school librarians in the field seems warranted.

One new teacher pointed out that the mentoring and collaboration process would have been more effective if interventions started during pre-service week in August 2017. This new teacher felt that by the time the interventions began, she had already fallen behind. While starting earlier would be possible with specific school librarian-new teacher pairs, it was not an option for this standardized model due to the scramble of hires and transfers for new teachers across the district at the start of the school year. Beginning the implementation of the Continuum of Care model during pre-service week may be seen as best practice for school librarians in individual practice.

Causal Research in the Field

This study moved the field of school librarianship toward causal research of best practices in the professional development of new teachers. The study design used a matched sample as a strategy to control for possible confounding variables (Leedy & Ormrod, 2016). New teachers in the treatment group were paired with similar new teachers with respect to initial level of resilience, grade level, and Title I status of the school, all of which were thought to have an effect on levels of resilience, burnout, and retention.

Causal research in authentic school settings is problematic. This study was situated in the natural context of schools, classrooms, and school libraries. As such, it describes the relationship between new teachers and school librarians in their daily work environment, with the aim of

creating a research project that makes a difference in the professional lives of new teachers. Having involved “end user” research partners, the school librarians who served as interventionists, added a level of complexity to the process (Johnson et al., 2016). It was unavoidable that these practitioners in the field have their own professional priorities which were unrelated to the research. As a leader in the school, the school librarian may also be asked to take on additional responsibilities that are not in their job description. These added duties may serve as barriers to mentoring and collaboration. Finding a way to move away from these barriers to a more enabling role would impact the ability of the school librarian to mentor and collaborate with new teachers.

Selection of school librarian/new teacher pairs was complicated by the lack of a standard definition for “new teacher,” either in the literature or in practice. For the purpose of this study, a new teacher was defined as a professional teacher in their first full-time, contract year. However, the definition of “new teacher” in the literature ranged from first to fifth year and included student teachers and interns. In this district, “new teacher” included not only first year teachers, but also retired teachers who were returning to fill empty positions, long-term substitutes, and even paraprofessionals. As a further complication, there were new teachers who were hired, severed from their positions, or were transferred from one school to another while the selection of the treatment group was underway. Unfortunately, sorting out these discrepancies consumed all of August-September 2017, the critical period when the new teachers needed access to information and support structures (Sharplin, O'Neill, & Chapman, 2011). Establishing a field standard definition of “new teacher” to readily identify those most in need of assistance would smooth out some of these difficulties.

Recommendations

From the beginning, the goal of this study was to make a difference in the working lives of new teachers by increasing resilience. The findings indicate that there are specific strategies in the Continuum of Care model that can be set in place to make a positive impact on new teacher resilience. There are also influencers in the social and physical ecology of the school which create an environment more conducive to implementing interventions for new teacher resilience.

The Continuum of Care model laid out a series of interventions to boost new teacher resilience. These interventions were based on the literature for mentoring new teachers and school librarian best practice. The results of this study show that school librarians acknowledge that supporting new teachers is part of their role. This is evident in the diffusion of the treatment to the comparison group, as well as the implementation of the Continuum of Care in most cases. But at least in some cases the barriers present in the authentic school settings impeded implementation of the model. Whether the interventions outlined in the Continuum of Care model can realistically be implemented in a standardized fashion across multiple school settings is an open question. An evaluation of the current study is underway to shed further light on the practical implementation of the Continuum of Care model in the authentic school setting and to identify barriers and enablers for mentoring and collaboration.

Several factors in the social ecology of the school made a difference for the new teachers in this study. Greater accessibility and availability of the school library and librarian allowed for more flexibility in the relationship. Physical, digital, and metaphorical proximity to the library contributed to building a closer personal relationship and strengthened the bond between the classroom teacher and the librarian. Providing a comfortable, non-threatening environment to

advise and answer questions benefited new teachers seeking a safe space for mentoring.

Educators of school librarians should encourage pre-service librarians to take these factors into consideration when working with new teachers.

The role of the school librarian is broad and encompasses all grade levels and subject areas in the school. Because they provide services to the entire school population, librarians are seen as leaders in the school (AASL, 2018). While some duties of the school librarian are administrative in nature, in this district they are not part of the administrative team. Rather they are contracted as teachers. As such, their formal relationship to all the other experienced teachers in the building is an equal, collegial partnership. To support this, the qualitative evidence shows that school librarians who serve in mentoring and collaborative roles would best take care not to appear as an administrator or evaluator. Stepping over that line may alarm the new teacher, and set up additional barriers to future mentoring and collaboration.

The allotment of time also makes a difference, whether more time during the school day to consult, or a planned event for the school librarian to meet with several new teachers together. Although the Continuum of Care model did not define how much time would be devoted to mentoring and collaboration, or where or when these meetings would take place, these concerns did matter to the new teachers. In cases of only one new teacher in the school, flexibility of meet ups would be more effective, but where there were several new teachers, even in one department, a more collaborative approach would enhance the experience. Finally, as the research was situated in the context of schools, integration into the school calendar was also necessary and affected the collaborative relationship. Timing should be considered for school librarians who work in a mentoring and collaborative role with new teachers.

Limitations

Diffusion of interventions to the comparison group was difficult to control due to the study being situated in the authentic setting of schools. Some new teachers in the comparison group did receive some form of mentoring and collaboration. The quantity, quality, or motivation behind this mentoring and collaboration for the comparison group is unknown.

The school librarians who served as interventionists were not skilled researchers, and had priorities in their own practice. Training in the implementation of interventions was provided, weekly emails encouraged the application of the interventions, and the researcher was available to clarify and answer questions. However, the school librarians' primary role as practitioners presented a barrier to fully implementing the full Continuum of Care model. Thus, opportunity to put interventions in place was lost, and well-intended plans for collaboration were de-prioritized.

Stronger checks to ensure fidelity to the model may help to control for variable implementation. However, opportunity to implement interventions could not be reasonably recovered due to the pace of the school year calendar. Additionally, motivating these interventionists to carve out time in their already busy schedules to attend more training was not feasible. Additional duties outside of the school librarian's job description prevented implementation of the model in several cases.

Further Research

A program evaluation survey of the school librarians who served as interventionists is underway at this time. This research may further bring to light the barriers and enablers to mentoring and collaboration under the Continuum of Care model by school librarians for new teachers in the authentic school setting. Results of the program evaluation may explain the effect of school level and standardized testing on implementation of the model. Collecting retention data for the study sample to better define the relationship between intent to return and actual retention is also in the planning stage.

To further define the Continuum of Care model, a randomized control trial with a larger sample size in more diverse settings with more data points over several school years would shed light on the role of the school librarian in providing mentoring and collaboration to support resilience for new teachers. The lack of results for burnout under the theme of modeling teacher behaviors points to another open area for research. Additionally, an investigation into the influence of standardized testing on mentoring and collaboration seems warranted.

Several recommendations for further research may be made to define the theory of resilience, especially as applied to the teaching profession. Investigation into the interaction between age and teacher resilience, including the magnitude and direction of this interaction, would open up a new area of study for teacher resilience. Other demographic variables may also provide a new area of research into the teacher resilience. Further study of the relationship between resilience, burnout, and teacher retention would also bring more clarity to the theory.

Conclusions

The major goal of this study was to make a difference in the professional lives of new teachers by putting in place a model of mentoring toward collaboration to increase resilience of new teachers. Interventions focused on the practices of school librarians to engage, empower, partner, and co-teach with this special population. Results of the study add to the knowledge of evidence-based practice in school librarianship in the space of teacher resilience using research methods which approach causality. The evidence collected over the course of this study leads to several conclusions.

First, school librarians should consider new teachers, at least initially, as a special population in need of a discrete standard of practice. Working with new teachers differs from working with their more experienced peers. In order to establish the collaborative relationship, school librarians should provide specific, targeted interventions that initiate in a mentoring phase and move toward a collaborative stance. Bearing in mind that new teachers have differently defined needs, the role of the school librarian in collaboration with this special population should reflect attentive interactions which move along a continuum from simple coordination to an integrated curriculum.

Second, school librarians can make a difference in the working lives of new teachers. By implementing interventions focused on mentoring and collaboration, school librarians may influence resilience, burnout, and retention of educators new to the field. Mentoring combined with collaboration in the school librarian-new teacher pairing produces a new model of professional development for new teachers. This partnership can be steered from a merely transactional relationship toward a truly interoperable sharing of roles. School librarians who

provide a Continuum of Care develop the collaborative partnership between the school librarian and new teacher.

Third, establishing an understanding of trust requires an investment of time and effort. Appropriate development of the relationship between the school librarian and the new teacher from support to intervention requires an outlay of dedicated resources over a considerable length of time. This expense is justified when it addresses retention of new teachers for the improvement of the school ecology. The field expects that school librarians are trained to effectively collaborate with all professionals in their building. The results of this study show that finding an area of common interest can even more readily move forward the trusting relationship, whether that be a professional or a more personal connection. Recognizing this personal connection between significant colleagues may be identified as best practice for the field of school librarianship to create a more available opening for effective collaboration.

The concept of the Continuum of Care model was born out of the need to share ideas and build relationships in a community of practice. The role of the school librarian as a colleague differs from that of other teachers. By reaching out to new teachers, the school librarian bridges the gap between the library and the classroom, drawing them to a supportive space. The school librarian is well versed in listening for patron needs, assessing, and providing resources to support learning. These same skills can be used to support new teachers.

The American Library Association (ALA) Center for the Future of Libraries confirms the long-term commitment of the profession to the resilience of society, proclaiming that “librarians are not just educators but activists” (Aldrich, 2018). Indeed, Aldrich identifies three skills as critical for the resilience of society, namely empower, engage, and energize. She recommends “a *systematic* approach that is coordinated across a community, with libraries as part of the

strategy” (Aldrich, 2018, p. 42). The Continuum of Care model addresses this societal need with a proactive systematic approach to new teacher resilience, using engage and empower to initiate the conversation, and partner and co-teach to energize the relationship.

Likewise, the school librarian is uniquely positioned in the social ecology of the school, within a framework for dynamic learning leadership (AASL, 2018). School librarians are instructional leaders, collaborative partners, and facilitate professional learning (AASL, 2018). National AASL standards show that collaboration and leadership are embedded in the role of the school librarian as instructional partner, guiding instructional design to integrate critical-thinking, technology, and information skills by working with classroom teachers to establish learning objectives and goals, develop assignments, and implement assessment strategies (AASL, 2018).

Best practice for collaboration in school libraries recommends that librarians build personal trust with colleagues before attempting to collaborate (AASL, 2018). For new teachers, this may naturally take the form of building a mentoring relationship, as evidenced by one new teacher in her interview, “I just think mentoring is a given. Like, you need to do that” (NT1@---ES). School librarians should be mindful of this responsibility to reach out to new teachers as a special population. The Continuum of Care model provides a framework on which to build this relationship between the school librarian and her new teachers.

Both the school librarians and the new teachers who were interviewed felt that the process of mentoring and collaboration was valuable, and had some effect on resilience, burnout, and retention. As one new teacher said, “I think that overall it's been a very positive experience. Aside from wishing I had more time [with the school librarian], overall I only have good things

to say about it” (NT1@---ES). Carving out time to establish a relationship with new teachers creates the opportunity to develop a collaborative pairing for years to come.

This dissertation study has moved the field of school librarianship by presenting a research-based model which lays out strategies to care for our new teachers. School librarians as significant colleagues who provide mentoring for new teachers create an opportunity for further collaboration in a relationship of professional parity. The Continuum of Care model provides specific interventions to build resilience of new teachers and reduce burnout and, in turn increase retention. This exploratory research study lays the groundwork for further study of the role of the school librarian to support new teacher resilience in the authentic school setting.

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Appendices

A IRB Exempt Letters



OFFICE OF THE VICE PRESIDENT FOR RESEARCH

Physical Address

4111 Monarch Way, Suite 203
Norfolk, Virginia 23508

Mailing Address

Office of Research
1 Old Dominion University
Norfolk, Virginia 23529
Phone:(757) 683-3460
Fax:(757) 683-6902

DATE: October 20, 2017

TO: Gail Dickinson, PhD

FROM: Old Dominion University Education Human Subjects Review Committee

PROJECT TITLE: [1131628-1] School Librarians: Interventions for New Teacher Resilience

REFERENCE #:

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: October 20, 2017

REVIEW CATEGORY: Exemption category # 6.1

Thank you for your submission of New Project materials for this project. The Old Dominion University Education Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Jill Stefaniak at (757) 683-6696 or jstefani@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Education Human Subjects Review Committee's records.



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DATE: December 12, 2017

TO: Gail Dickinson, PhD

FROM: Old Dominion University Education Human Subjects Review Committee

PROJECT TITLE: [1131828-2] School Librarians: Interventions for New Teacher Resilience

REFERENCE #:

SUBMISSION TYPE: Amendment/Modification

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: December 12, 2017

REVIEW CATEGORY: Exemption category # 6.1

Thank you for your submission of Amendment/Modification materials for this project. The Old Dominion University Education Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Jill Stefaniak at (757) 683-6696 or jstefani@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Education Human Subjects Review Committee's records.



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DATE: March 5, 2018

TO: Gail Dickinson, PhD

FROM: Old Dominion University Education Human Subjects Review Committee

PROJECT TITLE: [1131628-3] School Librarians: Interventions for New Teacher Resilience

REFERENCE #:

SUBMISSION TYPE: Amendment/Modification

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: March 5, 2018

REVIEW CATEGORY: Exemption category # 6.1

Thank you for your submission of Amendment/Modification materials for this project. The Old Dominion University Education Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Jill Stefaniak at (757) 683-6696 or jstefani@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Education Human Subjects Review Committee's records.



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Norfolk, Virginia 23508

Mailing Address

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1 Old Dominion University
Norfolk, Virginia 23529
Phone(757) 683-3460
Fax(757) 683-5860

DATE: March 22, 2018

TO: Gail Dickinson, PhD

FROM: Old Dominion University Education Human Subjects Review Committee

PROJECT TITLE: [1212422-1] A Continuum of Care: School Librarian Interventions for New Teacher Resilience

REFERENCE #:

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: March 22, 2018

REVIEW CATEGORY: Exemption category # 6.2

Thank you for your submission of New Project materials for this project. The Old Dominion University Education Human Subjects Review Committee has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Jill Stefaniak at (757) 683-6696 or jstefani@odu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Old Dominion University Education Human Subjects Review Committee's records.

B Formative Measures

December 2017

New Teacher Formative Assessment

Q1 Tidewater City Public Schools along with Old Dominion University is studying teacher resilience. We invite you and all other new district teachers to help us understand this phenomenon by completing a one question survey. Completion of the survey is voluntary. No penalty will be applied to anyone who chooses not to complete the survey.

Your responses are confidential. Digital copies of surveys will be stored in a password protected location until analyzed. Data will be reported in the aggregate and your identity will be shielded. For questions or concerns contact the researcher, Rita Soulen, at rsoulen@odu.edu or her supervisor, Dr. Shana Pribesh at spribesh@odu.edu. As a way of saying thank you, if you complete the survey you will have the opportunity to be entered into a raffle for a \$25 VISA gift card. By clicking on the participation link below you are indicating your informed consent.

Q2 I want to participate:

- Yes
- No

Skip To: End of Survey If I want to participate: = No

Q3 Please describe your engagement with your school librarian over the past six weeks. How has this empowered you as a new teacher? Examples may include mentoring and induction, resources, planning, instruction, collaboration, other related topics.

Q4 Help us build a unique Identifier Code for you. We will never know your name. What day of the month were you born?

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| | | <input type="radio"/> 31 |

Q5 What is your middle name?

Q6 Do you wish to be entered into a raffle to win a \$25 gift card. If you say yes, then you will be asked for your contact information.

- Yes
- No

Skip To: End of Survey If Do you wish to be entered into a raffle to win a \$25 gift card. If you say yes, then you will be... = No

Q7 Please provide your name and contact (email or phone). You will be entered in the raffle to win a \$25 gift card. This information is not linked to your survey answers.

School Librarian Interventionist

Mid-Study Formative Assessment

Directions: Please enter the date when intervention was performed. If you are unsure, please approximate the date. If the interventions was not implemented, please enter N/A.

Please respond with integrity, understanding that research always presents problems that we can learn from. Please place in district pony mail to preserve anonymity, or return via district email.

Thank you!

November 2017 Coordination

Week 1 October 30-November 3 Welcome

Date: The SL will send a welcome email to her new teachers to the three NTs they will be working with in their building. In order to standardize practice, this email will be developed by the researcher and provided to the SLs to be sent verbatim to the new teachers.

Date: The SL will send a welcome email to her new teachers to the three NTs they will be working with in their building. In order to standardize practice, this email will be developed by the researcher and provided to the SLs to be sent verbatim to the new teachers.

Date: The SL will follow up the email with the first of three classroom visits to each of the three NTs' classrooms in her building to welcome them to the school. During this visit the SL will perform a needs assessment consisting of an informal interview of the NT by the SL. The interview will consist of three questions provided by the researcher and based on this study's research questions. SLs at individual schools will be asked to respond to the needs assessment to suggest instructional materials in a variety of formats in the NT's subject area to help diverse learners. As needed, the SL will provide library equipment and instruction in its use.

Week 2 November 6, 8-9 2017 Resilience

Date: The SL will visit the NTs' classrooms a second time to share the APA Road to Resilience brochure provided by the researcher.

Date: The SL will send an e-card of encouragement to her NTs during the Virtual Teacher Workday on Tuesday, November 7, 2017. An example of an e-card tool may be found at <https://www.bluemountain.com>.

Week 3 November 13- 17 Schedule Library Activity

Date: The SL will coordinate with their NTs either in person, via email, or via phone call to schedule time in the next two weeks for students to participate in library activities or events as individuals, small groups, or whole class. This could be time to read/check out books, learn to access/read ebooks, book talks, storytelling, speed-dating books, or a special event in the library such as a Book Fair, etc. Alternatively the SL could provide opportunities for exhibits or displays of student work.

Date: The SL will informally share teaching materials, files, bulletin board displays, etc. which are relevant to the NT in the context of her subject, grade level, or topics under instruction. The SL may also offer to help the teacher produce instructional materials or locate materials from sources outside the library.

Week 4 November 20-22 Quick Check (2 ½ school days)

Date: The SL will check in informally with the NTs in her building to keep the NT informed of at least one new material or trend or to offer information about at least one of the

latest technologies for instruction and information. For example, these may include new books or materials in the library, award winning apps or websites (see AASL Best Apps and Best Websites <http://www.ala.org/aasl/>), or new equipment that is part of the library collection or school.

Week 5 November 27-December 1 Connection

____ Date: The SL will coordinate with the NTs in her building to connect each to at least three other contacts who can help support the new teacher's development.

____ Date: The SL will connect classroom learning to the school library program by promoting and supporting the current instructional program by highlighting classroom activities through the school media such as an in-house news show or newsletter or district-wide or local news media.

November Comments:

December 2017 Cooperation

Week 6 December 4-8 Resources at the Ready

____ Date: The SL will visit the teacher in her classroom a third time to provide resources at the ready in the form of the school district's Office of Media Services Reference Resources brochure which may be edited by the individual school librarian to include any extra resources provided by that school. The SL will review these available digital resources with the NT, either on paper or by accessing the Reference Resources page on the district website. The SL also will make suggestions for integration of these resources into classroom lessons and encourage the NTs to explore their use.

____ Date: The SL will encourage the NTs to bring a colleague to the library to discuss resources available through the library and future school librarian-teacher collaboration.

Week 7 December 11-15

____ Date: The SL will ask the NTs either in person, via email, or via phone call about relevant topics for classroom instruction, then gather instructional resources in any format to deliver to the NTs' classrooms or place on reserve in the library.

____ Date: The SL will set up a face-to-face social event with the NTs, such as sharing a coffee or breakfast biscuit, or meeting after school for a soda. Receipts (\$20.00) can be sent to the researcher for reimbursement.

Week 8 December 18-20 Celebrate Success!

Date: The SL will identify an area of strength of the NT and send an email to an _____ administrator celebrating the success and CC: the NT.

December Comments:

General Comments:

C Formal Measures

October 2017 New Teacher Questionnaire

Connor-Davidson Resilience Scale 10 with Demographic Data

Q1 Tidewater City Public Schools along with Old Dominion University is studying teacher resilience. We invite you and all other new TCPS teachers to help us understand this phenomenon by completing a 5-minute survey. Completion of the survey is voluntary. No penalty will be applied to anyone who chooses not to complete the survey.

Your responses are confidential. Digital copies of surveys will be stored in a password protected location until statistically analyzed. Data will be reported in the aggregate and your identity will be shielded. For questions or concerns contact the researcher, Rita Soulen, at rsoulen@odu.edu or her supervisor, Dr. Shana Pribesh at spribesh@odu.edu. As a way of saying thank you if you complete the survey, you will have the opportunity to be entered into a raffle for a \$50 VISA gift card. By clicking on the participation link below you are indicating your informed consent.

Q2 I want to participate:

- Yes
- No

Q3 Help us build a unique Identifier Code for you. We will never know your name. What day of the month were you born?

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Q4 What is your middle name?

Q5 Please select the response that best describes yourself. (CD-RISC 10)

Not true at all (1) Rarely true (2) Sometimes true (3) Often true (4) True nearly all the time (5)

I am able to [redacted]	0	1	2	3	4
I can deal with [redacted]	0	1	2	3	4
I try to see [redacted]	0	1	2	3	4
Having to cope with [redacted]	0	1	2	3	4
I tend to [redacted]	0	1	2	3	4
I believe I can [redacted]	0	1	2	3	4
Under pressure, [redacted]	0	1	2	3	4
I am not [redacted]	0	1	2	3	4
I think of myself as [redacted]	0	1	2	3	4
[redacted]					
I am able to [redacted]	0	1	2	3	4
[redacted]					

Q6 Now we would like to know a little bit more about you. Are you in your first contract year of teaching?

- Yes (1)
- No (2)

Q7 Please select your highest educational attainment.

- Bachelor of Arts or Science (1)
- Masters' degree(s) (2)
- PhD, Md, or JD (3)

Q8 Are you certified in the subject you are currently teaching?

- Yes (1)
- No (2)

Q9 What grade level do you currently teach?

- K-2 (1)
- 3-5 (2)
- 6-8 (3)
- 9-12 (4)

Q10 Select the area that best describes the subject that you teach.

- English/Language Arts (1)

- Foreign Language (2)
- Health/Physical Education (3)
- Mathematics (4)
- Music/Art (5)
- School Counselor (12)
- Science (6)
- Social Studies (7)
- Special Education (8)
- Technology (9)
- Other academic (10) _____
- Other elective (11) _____

Q11 Is your school a Title I school? Title I schools have a very high number of students who live near the poverty line and are given special supports such as smaller class sizes or funding for aides.

- Yes (1)
- No (2)

Q12 What is your gender?

- Male (1)
- Female (2)
- Do not wish to disclose (3)

Q13 What is your age?

- 20 to 29 years (1)
- 30 to 39 years (2)
- 40 to 49 years (3)
- 50 to 59 years (4)
- 60 or more years (5)

Q14 What race do you identify with?

- African American/Black (1)
- Asian (2)
- Caucasian/White (3)
- Native American (4)
- Other (5) _____

Q15 Do you wish to be entered into a raffle to win a \$50 gift card. If you say yes, then you will be asked for your contact information.

- Yes

No

Skip To: End of Survey If Do you wish to be entered into a raffle to win a \$50 gift card. If you say yes, then you will be... = No

Q16 Please provide your name and contact (email or phone). You will be entered in the raffle to win a \$50 gift card. This information is not linked to your survey answers.

School Librarian Interventionists

Demographics

Q1 Tidewater City Public Schools along with Old Dominion University is studying the effect of school librarian interventions on new teacher resilience. We invite you to help us understand this phenomenon by completing a 5-minute survey. Completion of the survey is voluntary. No penalty will be applied to anyone who chooses not to complete the survey.

Your responses are confidential. Digital copies of surveys will be stored in a password protected location until statistically analyzed. Data will be reported in the aggregate and your identity will be shielded. For questions or concerns contact the researcher, Rita Soulen, at rsoulen@odu.edu or her supervisor, Dr. Shana Pribesh at spribesh@odu.edu.

Q2 I want to participate:

- Yes
- No

Skip To: End of Survey If I want to participate: = No

Q3 Are you a full-time school librarian certified by the Commonwealth of Virginia and currently employed by Tidewater City Public Schools?

- Yes
- No

Q6 How many years of teaching experience (including library) do you have?

- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- 21 to 25 years
- 26+ years

Q7 How many years of experience do you have as a school librarian?

- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- 21 to 25 years
- 26+ years

Q8 Please select your highest educational attainment

- Bachelor of Arts or Science
- Masters' degree(s)
- MLIS
- PhD, Md, EdD, or JD

Q9 What subject(s) are you currently certified to teach according to the Commonwealth of Virginia?

Q10 What is your school level?

- PreK-5
- PreK-8
- 3-8

- 6-8
- 9-12

Q11 What is your gender?

- Female
- Male
- Do not wish to disclose.

Q12 What is your age?

- 20 to 29 years
- 30 to 39 years
- 40 to 49 years
- 50 to 59 years
- 60 or more years

Q13 What race do you identify with?

- African American/Black
- Asian
- Caucasian/White
- Native American
- Other _____

March 2018 New Teacher Questionnaire

CD-RISC 10, Mentoring & Collaboration, Intent, MBI-ES

Q1 Tidewater City Public Schools along with Old Dominion University is studying teacher resilience. We invite you and all other new TCPS teachers to help us understand this phenomenon by completing a 5-minute survey. Completion of the survey is voluntary. No penalty will be applied to anyone who chooses not to complete the survey.

Your responses are confidential. Digital copies of surveys will be stored in a password protected location until statistically analyzed. Data will be reported in the aggregate and your identity will be shielded. For questions or concerns contact the researcher, Rita Soulen, at rsoulen@odu.edu or her supervisor, Dr. Shana Pribesh at spribesh@odu.edu. As a way of saying thank you if you complete the survey, you will have the opportunity to be entered into a raffle for a \$50 VISA gift card. By clicking on the participation link below you are indicating your informed consent.

Q2 I want to participate:

- Yes (1)
- No (2)

Skip To: End of Survey If I want to participate: = No

Q3 Help us build a unique Identifier Code for you. We will never know your name. What day of the month were you born?

- | | | |
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| <input type="radio"/> 02 | <input type="radio"/> 12 | <input type="radio"/> 22 |
| <input type="radio"/> 03 | <input type="radio"/> 13 | <input type="radio"/> 23 |
| <input type="radio"/> 04 | <input type="radio"/> 14 | <input type="radio"/> 24 |
| <input type="radio"/> 05 | <input type="radio"/> 15 | <input type="radio"/> 25 |
| <input type="radio"/> 06 | <input type="radio"/> 16 | <input type="radio"/> 26 |
| <input type="radio"/> 07 | <input type="radio"/> 17 | <input type="radio"/> 27 |
| <input type="radio"/> 08 | <input type="radio"/> 18 | <input type="radio"/> 28 |
| <input type="radio"/> 09 | <input type="radio"/> 19 | <input type="radio"/> 29 |
| <input type="radio"/> 10 | <input type="radio"/> 20 | <input type="radio"/> 30 |
| | | <input type="radio"/> 31 |

Q4 What is your middle name?

Q5 Please select the response that best describes yourself. (CD-RISC 10)

Not true at all (1) Rarely true (2) Sometimes true (3) Often true (4) True nearly all the time (5)

- | | | |
|-----------------------|----------------------|-----------|
| I am able to | <input type="text"/> | 0 1 2 3 4 |
| I can deal with | <input type="text"/> | 0 1 2 3 4 |
| I try to see | <input type="text"/> | 0 1 2 3 4 |
| Having to cope with | <input type="text"/> | 0 1 2 3 4 |
| I tend to bounce back | <input type="text"/> | 0 1 2 3 4 |
| I believe I can | <input type="text"/> | 0 1 2 3 4 |
| Under pressure, | <input type="text"/> | 0 1 2 3 4 |

I am not [redacted]	0 1 2 3 4
I think of myself as [redacted]	0 1 2 3 4
[redacted]	
I am able to [redacted]	0 1 2 3 4
[redacted]	

Q6 Please select the response that best describes yourself.

No librarian in my school. (0) Strongly disagree (1) Disagree (2) Somewhat disagree (3)
 Somewhat agree (4) Agree (5) Strongly agree (6)

My school librarian has provided for my needs through mentoring.	0 1 2 3 4 5 6
My school librarian has worked closely with me through instructional collaboration.	0 1 2 3 4 5 6

Q7 Please select the response that best describes yourself.

I intend to continue my employment in my present position for the next school year.	1
I do NOT intend to continue my employment in my present position for the next school year.	0

Q8 Please select the response that best describes yourself. (MBI-ES)

Never (1) A few times a year or less (2) Once a month or less (3) A few times a month (4)
 Once a week (5) A few times a week (6) Every day (7)

I feel [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
[redacted]	
I can easily understand [redacted]	1 2 3 4 5 6 7
I feel I treat some students [redacted]	1 2 3 4 5 6 7
Working with people [redacted]	1 2 3 4 5 6 7
I deal very effectively [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I've become more [redacted]	1 2 3 4 5 6 7
I worry that this job [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I feel [redacted]	1 2 3 4 5 6 7
I don't really care [redacted]	1 2 3 4 5 6 7
Working with people [redacted]	1 2 3 4 5 6 7
I can easily create [redacted]	1 2 3 4 5 6 7
I feel exhilarated after [redacted]	1 2 3 4 5 6 7
I have accomplished [redacted]	1 2 3 4 5 6 7
I feel like [redacted]	1 2 3 4 5 6 7
In my work, I deal with [redacted]	1 2 3 4 5 6 7

I feel students

1 2 3 4 5 6 7

Q9 Do you wish to be entered into a raffle to win a \$50 gift card. If you say yes, then you will be asked for your contact information.

- Yes
- No

Skip To: End of Survey If Do you wish to be entered into a raffle to win a \$50 gift card. If you say yes, then you will be... = No

Q10 Please provide your name and contact (email or phone). You will be entered in the raffle to win a \$50 gift card. This information is not linked to your survey answers.

Interview Blueprint and Protocol

New Teachers and School Librarians

Interview Blueprint

A Continuum of Care:

School Librarian Interventions for New Teacher Resilience

Research Questions

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

Interview Questions

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Interview Protocol- School Librarians

A Continuum of Care: School Librarian Interventions for New Teacher Resilience

Research Questions:

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

Sensitizing Concept	Building Resilience for New Teachers
Participants	3 School Librarians
Expected Time	40 minutes
Location	PreK-12 School
Instructions	<p>Thank you for participating in this interview today. Your participation is completely voluntary. I appreciate your taking the time to share your views on building new teacher resilience through collaboration with the school librarian. Your identity will be confidential. The session will be voice recorded then transcribed. Data collected will be reported out anonymously. You will have the opportunity to review the transcript if the information is used for publication. For the purpose of this study, a new teacher will be defined as one in their first contract year. Do you have any questions before we begin?</p>
Key Research Questions	<ol style="list-style-type: none"> 1. Thinking back to November/December 2017, how do you think the process of mentoring influenced your new teacher's level of resilience? 2. Thinking back to January/February 2018, how do you think the process of collaboration influenced your new teacher's level of resilience?

3. How do you think the new teachers that you worked with differ in resilience as compared to new teachers not formally supported by their school librarian?

4. Which of your interventions most influenced resilience of your new teacher(s)? Why?

5. How do you think the new teachers that you worked with differ in burnout as compared to new teachers not formally supported by their school librarian?

6. Which of your interventions most influenced burnout of your new teacher(s)? Why?

7. How do you think that the process of mentoring and collaboration has influenced your new teacher(s) intent to return to their current teaching position next year?

8. Which of your actions have most influenced your new teacher(s) intent to return next year? Why?

Probes
(as needed)

1. Can you give me an example?
2. Tell me a little more about that.
3. What happened next?
4. How did that happen?
5. What was that like for you?
6. Where were you?
7. Who else was there?
8. Can you elaborate on that?

Transition Messages

Thank you for sharing your experiences with me today. Should any of the data collected be used for publication, I will give you the opportunity to review your contributions for accuracy in reporting.

Interviewer Comments

Reflective Notes

Interview Protocol- New Teachers

A Continuum of Care: School Librarian Interventions for New Teacher Resilience

Research Questions:

RQ1: To what extent do new teachers who receive standardized interventions from the school librarian differ in their scores on a resilience scale from October to March of a school year?

RQ2: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a resilience scale in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ3: To what extent do new teachers who receive standardized interventions from the school librarian differ in scores on a burnout inventory in March of a school year as compared to new teachers not formally supported by the school librarian?

RQ4: To what extent do new teachers who receive standardized interventions from the school librarian differ in their intent to return to their current teaching position as compared to new teachers not formally supported by the school librarian?

Sensitizing Concept	Building Resilience for New Teachers
Participants	3 New Teachers
Expected Time	40 minutes
Location	PreK-12 School
Instructions	Thank you for participating in this interview today. Your participation is completely voluntary. I appreciate your taking the time to share your views on building new teacher resilience through collaboration with the school librarian. Your identity will be confidential. The session will be voice recorded then transcribed. Data collected will be reported out anonymously. You will have the opportunity to review the transcript if the information is used for publication. For the purpose of this study, a new teacher will be defined as one in their first contract year. Do you have any questions before we begin?
Key Research Questions	<ol style="list-style-type: none"> 1. Thinking back to November/December 2017, how do you think the process of mentoring influenced your level of resilience from October 2017 to March 2018? 2. Thinking back to January/February 2018, how do you think the process of collaboration influenced your new level of resilience from October 2017 to March 2018?

3. How do you think you would differ in resilience as compared to new teachers not formally supported by their school librarian?
 4. Which of your school librarian's interventions most influenced your level of resilience? Why?

5. How do you think you would differ in burnout as compared to new teachers not formally supported by their school librarian?

6. Which of your school librarian's interventions most influenced your level of burnout? Why?

7. How do you think that the process of mentoring and collaboration has influenced your intent to return to your current teaching position next year?

8. Which of the actions of your school librarian have most influenced your intent to return next year? Why?

Probes
(as needed)

1. Can you give me an example?
2. Tell me a little more about that.
3. What happened next?
4. How did that happen?
5. What was that like for you?
6. Where were you?
7. Who else was there?
8. Can you elaborate on that?

Transition Messages

Thank you for sharing your experiences with me today. Should any of the data collected be used for publication, I will give you the opportunity to review your contributions for accuracy in reporting.

Interviewer Comments

Reflective Notes

D Housekeeping
Budget

An important component of this study will be motivation to continue participation through the school year by both the school librarians and the new teachers. For this reason, a stipend of \$350, with an added \$50 each for more than one new teacher in the study, will be provided to each school librarian implementing the interventions, and one librarian will be randomly selected to attend the American Library Association annual conference. Additionally, a drawing for incentives for the new teachers will be held each month in order to encourage sustained participation.

Supplies will be provided for professional development for both the school librarians and the new teachers. Money will be allotted to purchase scales and inventories and for one researcher to attend the ALA Annual Conference.

<u>Budget Item</u>	<u>Cost (in USD)</u>	<u>Total (in USD)</u>
School Librarian stipend	13 @ 350.00	4,550.00
\$50 bonus for additional new teachers	9 @ 50.00	450.00
Supplies for school librarian PD	13 @ 20.00	260.00
Supplies for new teacher PD	23 @ 15.00	345.00
Monthly new teacher incentives	7 @ 150.00	1,050.00
CD-RISC	50.00	50.00
MBI-ES Remote Online Survey License	78 @ 2.50	195.00
MBI: Manual 4 th edition	1 @ 50.00	50.00
ALA Annual Conference registration	2 @ 300.00	600.00
ALA Annual Conference travel expenses	2 @ 1,200	2,400.00
		Total: 9,950.00

Mentoring toward Collaboration Agreement

I, _____, understand the mentoring toward collaboration model and, to the best of my ability, will implement the interventions proposed for the AASL CLASS II: Field Study “A Continuum of Care: School Librarian Interventions for New Teacher Resilience.” In doing so, I will keep the confidentiality of the mentoring toward collaboration relationship in mind so as not to risk the release of personal information.

In return, I will receive a stipend of \$350.00 and a bonus of \$50.00 per new teacher (greater than one), and will be entered into a drawing for \$300.00 conference registration and \$1,200.00 travel expenses to the ALA (alternatively AASL) annual conference.

_____ (Interventionist Signature)	_____ (Date)
_____ (Researcher Signature)	_____ (Date)

Welcome eMail

The school librarians serving as interventionists will send the following welcome email to the new teachers who they will be working with in their building. In order to standardize practice, this email was developed by the researcher and provided to the school librarians to be sent verbatim to the new teachers.

“Hello _____(insert name of new teacher)_____,”

As your school librarian I have many helpful resources and opportunities to share with you this school year. Supporting you as you adjust to your new position is important to me. The next few months will offer many occasions to develop a collaborative relationship as part of a study of new teachers, which will provide several opportunities to you.

You have already received an email in October with a questionnaire for new teachers and a chance to win a \$50.00 VISA gift card. If you have not yet completed that questionnaire, please do so at your earliest possible convenience (insert questionnaire link). You will also receive a questionnaire in March, and you may be asked to participate in an interview later in the school year. These experiences will offer a chance to win additional incentives as the school year progresses.

There are other school librarians in our district working with new teachers in their schools, too. Monthly drawings will also be held among this group of teachers to receive incentives. Maybe you will be one of the lucky winners!

I look forward to working together to build our collaborative relationship, and I plan to visit your classroom this week to check in. See you then!

_____(email signature of librarian)_____

E Data

Tests of Between-Subjects Effects for Grouping Variable and MBI-ES

Dependent Variable: March 2018 CD-RISC 10

Type III Sum of					
<u>Source</u>	<u>Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>
Corrected Model	52.366	3	17.455	.678	.570
Intercept	2249.425	1	2249.425	87.317	.000
Treatment/Comparison	20.526	1	20.526	.797	.377
MBI-ES	30.987	1	30.987	1.203	.278
Treatment/Comparison * MBI-ES	18.255	1	18.255	.709	.404
Error	1236.557	48	25.762		
Total	53012.000	52			
Corrected Total	1288.923	51			

Tests of Between-Subjects Effects for Grouping Variable and Mentoring/Collaboration Score

Dependent Variable: March 2018 CD-RISC 10

Type III Sum of					
<u>Source</u>	<u>Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>
Corrected Model	8.168	3	2.723	.102	.958
Intercept	2057.603	1	2057.603	77.115	.000
Treatment/Comparison	.264	1	.264	.010	.921
Mentoring/Collaboration	1.168	1	1.168	.044	.835
Sum Score					
Treatment/Comparison * Mentoring/Collaboration	.042	1	.042	.002	.968
Sum Score					
Error	1280.755	48	26.682		
Total	53012.000	52			
Corrected Total	1288.923	51			

Curriculum Vita

Rita Reinsel Soulen

Curriculum & Instruction, Old Dominion University

3204 Education Building, Norfolk, VA 23529

Education

December 2018 Old Dominion University Norfolk, VA

- PhD, Curriculum and Instruction
- Member of NxtWave scholar cohort
- Research focus: School librarian mentoring and collaboration to promote new teacher resilience

2009 M.S. Ed. with Library Science Endorsement, Old Dominion University, Norfolk, VA
 1987 B.S. Middle Education, Grades 4-8, William & Mary, Williamsburg, VA

Professional Experience

2018-present Old Dominion University Norfolk, VA *Lecturer, Library Science STEM & Professional Studies, Darden College of Education & Professional Studies*
 2015-2018 Old Dominion University, Norfolk, VA *Adjunct Faculty, Student Teacher Supervisor Curriculum & Instruction, Darden College of Education & Professional Studies*
 2001-2018 [REDACTED] Public Schools, [REDACTED] *School Library Media Specialist, Classroom Teacher*
 1989-1993 Norfolk Public Schools, Norfolk, VA *Classroom Teacher*
 1987-1988 Fauquier County Public Schools, Warrenton, VA *Classroom Teacher*

Publications

Soulen, R. and Wine, L. (2018). Building resilience in new and beginning teachers: Contributions of school librarians. *School Libraries Worldwide*, 24(2).
 Soulen, R. (2016). From Mary Virginia Gaver to the CLASS Research Summit: A journey toward causality and student success. *Knowledge Quest*, 45(2).
 Soulen, R. (Research in Progress.) Evaluation of a continuum of care.

Soulen, R. and Wine, L. Building Resilience in new and beginning teachers: Contributions of school librarians. To be included in *Social Justice and Cultural Competency: Essential Readings for Teacher Librarians*. Libraries Unlimited. (In progress).

Honors and Awards

September 2017 American Association of School Librarians CLASS II: Field Studies \$10,000.
 February 2016 American Association of School Librarians. CLASS Research Summit, Washington, D.C. \$500.
 December 2013 Member of NxtWave grant sponsored cohort of community of scholars and leaders to present for 21st Century School Libraries, approximately \$12,000.