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School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

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School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

by

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Dedication

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Abstract

School impact media studies indicate that a well-staffed and funded school library media program with a certified school library media specialist (SLMS) positively correlates with increased student achievement. SLMS must have a shared understanding of their roles and responsibilities to positively impact student success. In an effort to determine prior knowledge and differentiated learning objectives, the *method of certification* is critical for planning professional development. This dissertation presents a multi-method investigation of differences between Alternatively Certified (AC) and Traditionally Certified (TC) SLMS as it relates to their perceptions of collaboration, leadership and technology described in *Information Power: Building Partnerships for Learning (1998)*. The overall findings were used to generate recommendations for SLMS professional development.

Of 2350 total SLMS in Florida, 161 AC and 318 TC SLMS responded to an online job task analysis. The strength of association between *method of certification* and perceptions of job tasks under the three themes (collaboration, leadership, and technology) were compared using statistical analysis (i.e. variance, standard deviation, t-tests, chi-square tests, and ANOVA). Longitudinal comparisons were made between this study and baselines studies from 1996 and 2006. There were no significant differences between AC and TC overall perceptions of collaboration, leadership and technology as indicated by the job task analysis survey. Two tasks within collaboration and technology themes had large significant differences in AC and TC responses. TC SLMS were more

likely to "*Assist students and/or teachers with general references services (e.g., answer reference questions)*" and to "*Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.*" TC SLMS were significantly more familiar with *IP2*, made more attempts to implement *IP2*, and attended more in-services on *IP2*.

Observations and interviews with two AC and two TC SLMS triangulated the survey data and explored questions related to professional development. Interview participants advocated for content developed by other SLMS and mentorship training. SLMS asserted that professional development should include school and county protocols, evaluation tools and methods, relevant and accessible technologies (i.e. school and district software, Student Information System, Library Databases Standards such as CORE Curriculum). The SLMS indicated a preference for the following professional development methods: SLMS designed and implemented professional development; formal and informal SLMS sharing; differentiation and options to opt-out based on prior experiences and expertise; relevant and accessible technology training; and mentorship. These findings inform ways to effectively recruit, train, certify, and differentiate instruction in SLMS programs and professional development courses. Furthermore, our qualitative findings indicate a need to examine the impact of reduced budgets on school library media programs. Future studies should investigate the impact of increased numbers of non-certified SLMS and cuts to library staff on student achievement and K-12 learning communities. While this study counted the total number of non-certified SLMS in addition to the AC and TC SLMS, results from the sample of non-certified

SLMS collected during the job task analysis were not analyzed because it was too small for comparison or generalizability.

Chapter One: Introduction

The positive impact of the School Library Media Specialists (SLMS) on learning communities is evidenced by a body of research known as the school library impact studies, which includes research from twenty-two states and one Canadian province (Achterman, 2008; Baughman, 2000; Baumbach, 2003; Farmer, 2006; Baxter & Walker, 2004; Burgin & Bracy, 2003; Klinger, 2009; Lance et al., 2010; Lance, Francis & Lietzau, 2010; Lance, Rodney & Hamilton-Pennell, 2000, 2001, 2002, 2005; Lance, Rodney & Russell, 2007; Lance, Rodney & Schwarz, 2009; Lance, Welborn & Hamilton-Pennell, 2010; Ontario Library Association, 2006; Quantitative Resources, LLC, et al, 2003; Rodney, Lance & Hamilton-Pennell, 2002, 2003; Ross, 2005; Small, Shanahan & Stasak, 2010; Smith, 2001, 2006; Todd, Gordon & Lu, 2010; Todd & Kuhlthau, 2003). The findings of school library impact studies' research confirm a positive correlation between successful school library media programs and student achievement (Kachel, D., 2011; US National Commission on Libraries and Information Science, 2008). This positive correlation has been paralleled with evolving professional expectations of the SLMS (Jurkowski, 2010).

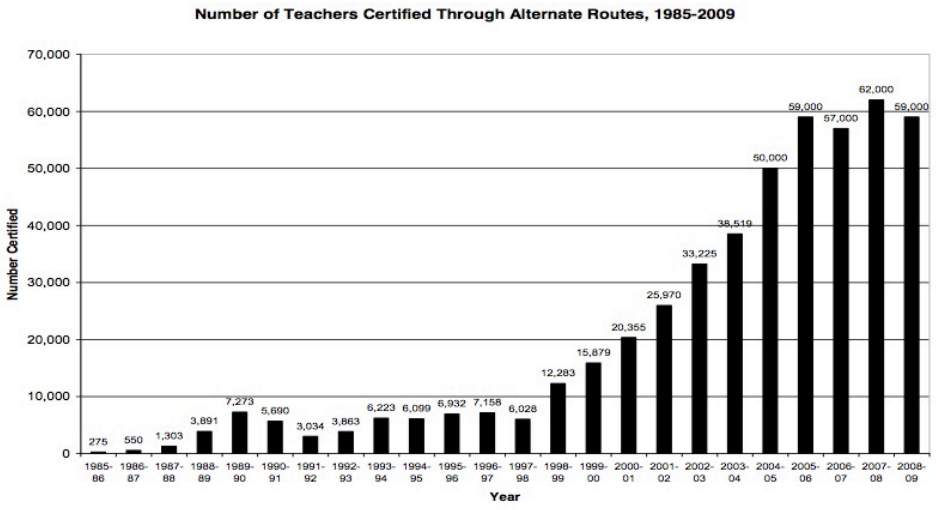
Advances in technology and pedagogical priorities over the last 25 years have refined the roles and responsibilities of the SLMS (Putnam, 1996; Lowe, 2001, Ellis & Lenk, 2001; Jurkowski, 2010; Lockee, 2011). In 1988, the American Association of

School Librarians (AASL) and Association for Educational Communications and Technology (ACET) published *Information Power: Guidelines for School Library Media Program (IP1)* to develop the national standards, visions and guidance of the American SLMS. In 1998, these organizations published an updated version entitled *Information Power: Building Partnerships for Learning (IP2)*. The seminal media specialist texts, *IP1* (1988) and *IP2* (1998), outline the guidelines to support school library programs that promote active, authentic student learning. *IP2* reinforces this pedagogical approach by emphasizing the development of life-long learning. *IP2* is of such great import to the field that the National Council for Accreditation of Teacher Education (NCATE) and ALA/AASL revised their school library media preparation program accreditation standards to reflect the updated national guidelines outlined in *IP2* (Shannon, 2004). *IP2* is also a foundational textbook used in NCATE approved programs in Florida (Pace, 2007; Jurkowski, 2010).

Shaped by national standards outlined in *IP1* and *IP2*, ALA (1998) notes that SLMS responsibilities are those of teacher, instructional partner, information specialist, and program administrator. *IP2* affirms that these roles and themes impact teaching and learning, information access and delivery and have positive connections to the larger learning communities of which they are a part. Additionally, *IP2* asserts that the SLMS serves a focal role in the learning community by fostering a student-centered library media program based on three central ideas: collaboration, leadership, and technology (Jurkowski, 2010). These three central ideas shape the vision of the school library media program and serve as the thematic framework of the research questions, instruments, and methods used in this study.

Background

The increase of research supporting the significance of SLMS to student achievement and the importance of the national standards outlined by *IP2* is paralleled by the increase in the number of educators who have sought alternative routes to teacher certification. In general, alternative routes to teacher certification are state-defined paths through which an individual (who already has at least a Bachelor's degree) can obtain certification to teach without completing a college campus-based teacher education program (Feistritzer, 2010; (Milton, Curva & Milton, 2011). Since the 1980's, there has been an increase in alternate certification in education (Feistritzer, 2010), and yet there is limited empirical research on the topic (Constantine, et al., 2009). An important longitudinal study was published by the National Center for Educational Information (2010), an organization that has tracked teacher preparation routes since 1983. Figure 1 illustrates the increase in numbers of teachers obtaining certification through alternative routes in the last decade (Feistritzer, 2010).

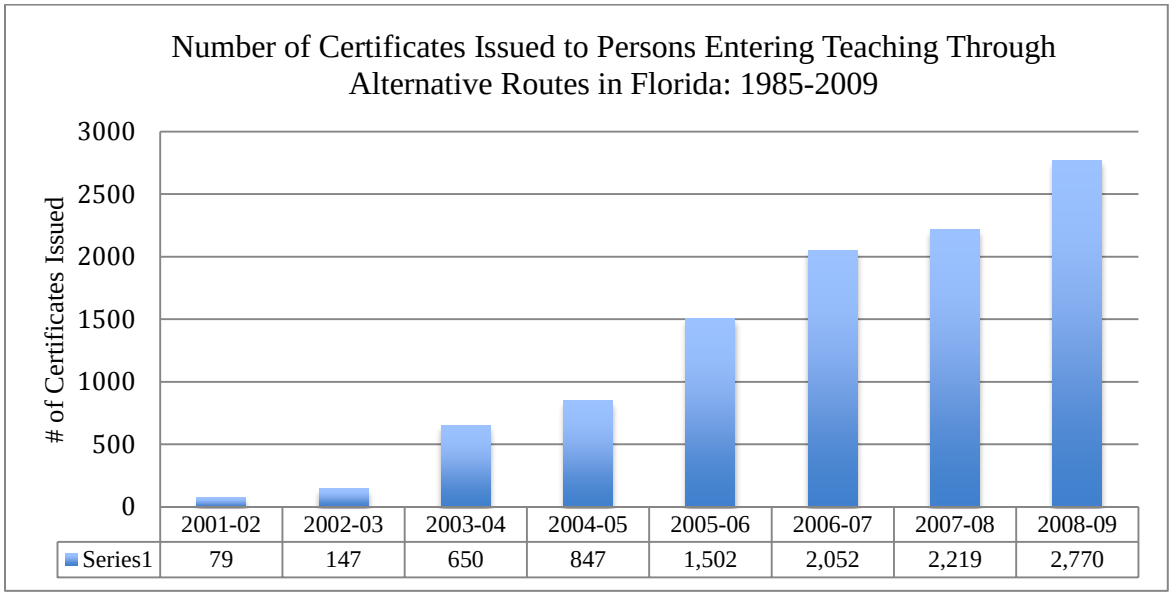


Source: National Center for Education Information. *Alternative Teacher Certification: A State-by-State Analysis 2010*

Figure 1 Number of Teachers Certified Through Alternative Routes, 1985-2009

This trend is also reflected in Table 1, which highlights the number of certificates issued to persons entering teaching through alternative routes in Florida (Feistritzer, 2008).

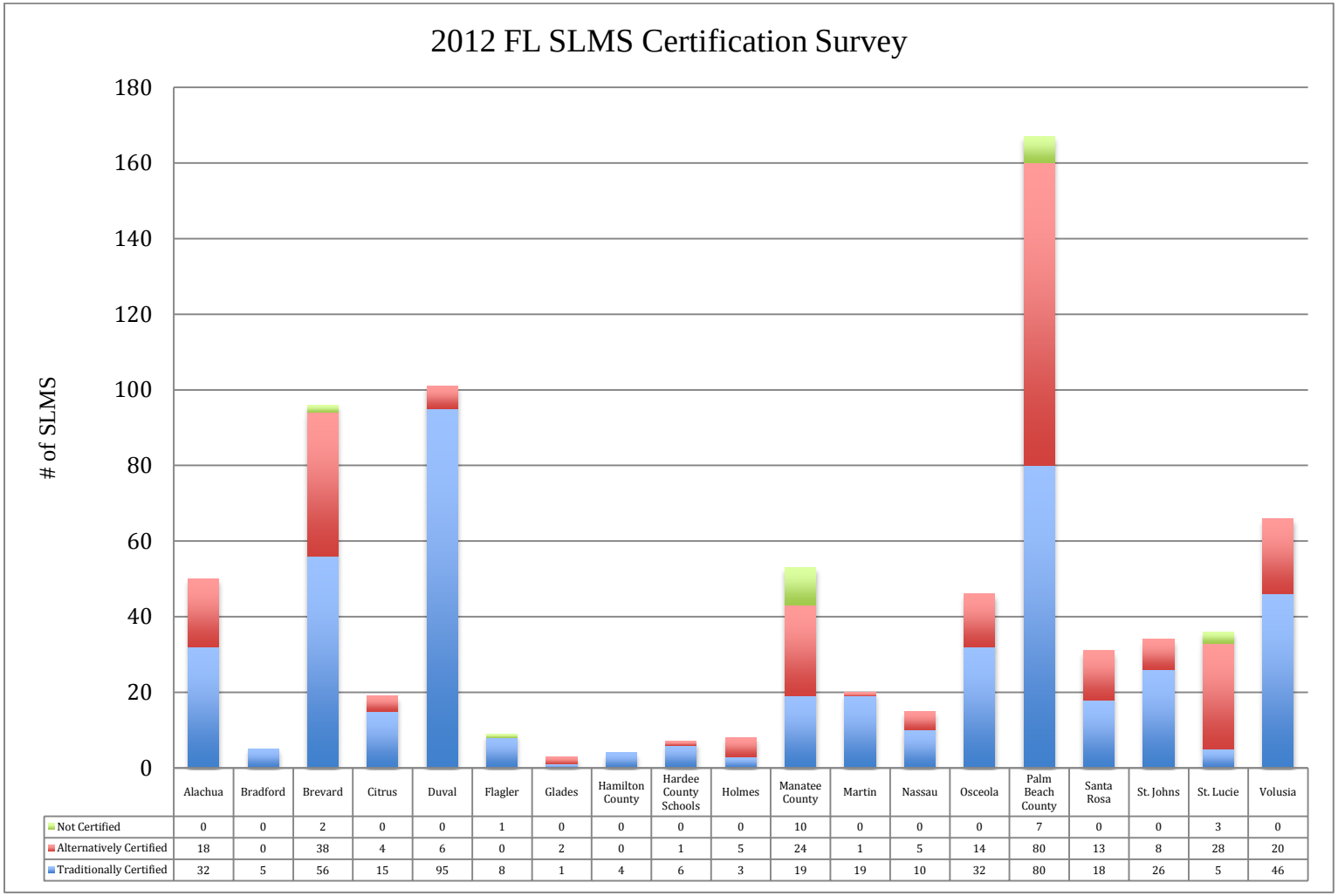
Table 1: Number of Certificates Issued to Persons Entering Teaching Through Alternate Routes in Florida



While there is a trend to fill research gaps about the rising numbers of alternatively certified teachers, there is limited research on Florida teachers who seek alternative certification to become a SLMS. Traditionally, SLMS have obtained certification by earning a master's degree or by taking thirty or more hours in Library and Information Science or Educational Media. In this study, alternatively certified (AC) SLMS are defined as those SLMS who had teacher certification and became a SLMS by passing the FTCE Professional Education Subject Area - Educational Media Specialist for PK-12 credentialing exam. Currently, in order to obtain SLMS certification, teacher licensure is needed but a master's degree is not (Jesseman, Page, & Underwood, 2012). The alternative route to becoming a SLMS was established by the Florida legislature in 2001 and extended in 2008 (Everhart, 2003).

In Florida, there has not been an official count of how many AC SLMS exist since the changes in the credentialing requirements for SLMS. Exact numbers of AC SLMS in Florida are not counted by the National Center for Educational Information or the National Center for Educational Statistics Common Core of Data (CCD) because the counts of librarian positions are based on a definition that specifies what the individual does, not what credentials she or he may have (Lance & Hofschire, 2011). In a collaborative effort to identify the number of AC and traditionally certified (TC) SLMS, the Principal Investigator of this study and the Florida Department of Education Director of School Libraries and Information Services polled SLMS district supervisors in 2012. Of the 67 districts, 20 (30%) responded. The 2012 Florida SLMS Certification Survey (Figure 2) illustrates the findings of this probe. Of the 768/2350 SLMS included in this survey, 480 (62%) are traditionally certified, 276 (35%) are alternatively certified and 23 (3%) are not certified. The number of AC and TC SLMS will be identified in this study.

Some researchers and practitioners feel that alternative certification of SLMS results in a lower quality of work. For example, professionals in the field (Baumbach, 2003; Pace, 2007; NCAC, 2011) theorized that the 2001 change in certification legislation would create measurable differences in the quality of school library media programs and exposure to the *IP2* standards. Similarly, the Florida Association for Media in Education (FAME) 2008 Legislative Platform asserted that "teachers who have been licensed as library media specialists by merely passing an exam without any training do not meet the minimum needs of students for learning, reading and research skills" (FAME Legislative Committee, 2008, p. 3).



	Alachua	Bradford	Brevard	Citrus	Duval	Flagler	Glades	Hamilton County	Hardee County Schools	Holmes	Manatee County	Martin	Nassau	Osceola	Palm Beach County	Santa Rosa	St. Johns	St. Lucie	Volusia
Not Certified	0	0	2	0	0	1	0	0	0	0	10	0	0	0	7	0	0	3	0
Alternatively Certified	18	0	38	4	6	0	2	0	1	5	24	1	5	14	80	13	8	28	20
Traditionally Certified	32	5	56	15	95	8	1	4	6	3	19	19	10	32	80	18	26	5	46

Figure 2 Florida SLMS Certification Survey

The FAME Legislative Committee Platform (2008) also asserted that a fully trained teacher who has no school library training acting in the capacity of a SLMS doubly reduces the effectiveness of the school library media center. According to the FAME 2008 Legislative Platform, university training and an exam should be a prerequisite to earning a SLMS subject area certification.

Once a person is alternatively certified, professional development is one of the only ways to improve the quality and efficacy of their work. As district leaders are facing more and more AC SLMS, they need more research on how to best support this group. Understanding the significant differences in the perceptions and needs of AC SLMS and TC SLMS is necessary to create ways to effectively recruit, train, certify, and differentiate instruction in professional development courses. Currently, there is a gap in the research that will help SLMS leaders identify the needs of AC SLMS in order to appropriately tailor professional development curricula. This proposed research could help to fill the gap of state-level knowledge about the implementation of national standards for SLMS in Florida.

Purpose

The purpose of this study is to describe and explain the significant differences between AC SLMS and TC FSLMS relative to their perceptions of the importance of their job tasks themed around collaboration, leadership, and technology. The level of importance is measured by the *saliency* of each task. *Saliency* is a composite score combining the time an individual spends on a task and how important he or she thinks that task is in relation to the other job tasks they perform. By including a qualitative

inquiry approach, this study also seeks to propose professional development that is appropriate and necessary for SLMS.

Baseline for the Study

In response to the guidelines outlined in *IP1*, the Florida Department of Education (FLDOE) contracted the Personnel Decisions Research Institutes, Inc. (PDRI) to conduct a Florida school library media specialist (FSLMS) job task analysis. The full survey instrument and the complete results of that study may be located in Technical Report # 277 published by PDRI in 1996 (Bruskiewicz et al., 1996; Pace, 2007). The PDRI job task analysis was conducted in 1996 and included 513 respondents. The PDRI job task analysis measured *saliency* rates (how important job tasks were in comparison to other tasks done on the job) of a variety job tasks. *Saliency* is measured as [2(*Criticality* Rating) + *Time Spent* Rating]/ 3 (Bruskiewicz et al., 1996; Pulakos & Arad, 2000; Pace, 2007). A *saliency* score is on a scale of 1-5, with 1 describing the least important job tasks and 5 describing the most important job tasks.

In the results of the PDRI study (Bruskiewicz et al., 1996), all of the highest rated job tasks were in the area of collaboration. These tasks were *assist students and/or teachers in locating and selecting materials* (3.97) and *provide informal instruction in information skills* (3.70). There were no job tasks that had mean *saliency* rates of 1 or 5. The lowest rated job tasks were in the category of leadership. These job tasks were *work with faculty to coordinate media center materials, activities* (2.14) and *attend meetings/conferences and participate in professional organizations* (2.21). Overall, the PDRI job task analysis found lower *saliency* rates in leadership roles than collaboration and technology.

Pace (2007) used the PDRI study as a baseline to investigate changes in the perceptions of SLMSs since 1996, the impact of the 1998 *Information Power: Building Partnerships for Learning (IP2)* publication and the environmental factors that influence implementation of national standards. Pace synthesized the 250 items included in the PDRI job task analysis to 37 items (Pace, 2007) with items themed around collaboration, leadership and technology. Pace (2007) found low results in leadership *saliency* ratings and notes that SLMS perceive their role as one of support, rather than leadership. The electronic survey was sent to all SLMS in Florida. Of the total population of 2676, 454 SLMS completed the survey representing a 17% response rate. In the sample 90.7% were traditionally certified, 6.6% were alternatively certified and 2.7% were not certified. 62% of respondents read *IP2* at least once, 26% scanned it and 12% had never read it. 40% of the sample had *attended in-services on IP2* and 28% said they had never attempted implementation.

Pace (2007) included a *method of certification* question on the survey to determine if the 2001 legislative change in means by which one could become a certified school library media specialist had had an affect on *saliency* responses. He noted, however, that the level of response of those persons who had been certified by only passing the FTCE (Florida Teacher Certification Exam) was too small to make any significant determinations and encouraged future researchers to create a similar survey focused on current school library media specialists who have been test certified, without any additional university coursework (Pace, 2007).

Pace (2007) did not find statistical significance between the variables *method of earning certification* and *familiarity with IP2.* There was only one significant correlation

between *method of certification* and the task of introducing materials of special interest to groups through book talks and story telling activities. This correlation "showed that those respondents who took the FTCE with no prior coursework rated this item with a higher *saliency* score than did any other segment of the sample" (Pace, 2007, p. 208). Pace (2007) concludes that the findings in the study indicate a lack of familiarity and in-service opportunities for *IP2*. Therefore, in this study there is an emphasis on whether *familiarity with IP2* is different between AC and TC SLMS in order to lend insight into SLMS perceptions of job tasks.

Research Questions

1. Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?
2. Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?
3. What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?

Table 2 reflects the data that is used to respond to each research question.

Table 2: Research Questions and Corresponding Data

Research Questions	Data
1. Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?	Survey
2. Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?	Survey
3. What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?	Interviews, Observations, Artifacts, Researcher Reflective Blog

The purpose of the qualitative component of the study is to extend the survey data results and explore the research question related to professional development. After careful analysis of the survey-generated data, interviews over time with a purposeful sample of four SLMS were be conducted. The researcher reflective blog was a data set for documenting the researcher's role, triangulation interview data (Janesick, 1998). The researcher reflective blog was analyzed and coded around the themes of collaboration, leadership and technology.

List of Acronyms

AASL: American Association of School Librarians

AC SLMS: Alternately Certified School Library Media Specialist

AECT: Association for Educational Communications and Technology

APS: Atlanta Public Schools

ARTC: Alternative Routes to Teacher Certification

ExCET: Examination for Certification of Educators in Texas

FAME: Florida Association for Media in Education

FTCE: Florida Teacher Certification Examinations

SLMS: Florida School Library Media Specialist

IP1: *Information Power: Guidelines for School Library Media Program*

IP2: *Information Power: Building Partnerships for Learning*

NCEI: National Center for Education Information

NCES: National Center for Educational Statistics

NCLB: No Child Left Behind

PDRI: Personnel Decisions Research Institutes, Inc.

SLMS: School Library Media Specialist

TC SLMS: Traditionally Certified School Library Media Specialist

Definition of Terms

Criticality: the rating of a task based on how important its completion is to the effective accomplishment of the overall job (Pace, 2007). For each activity that is considered "part of their job", respondents are asked to rate how critical it is to complete the activity successfully. The scale used was 1 to 5, with 1=unimportant and 5=crucial".

Librarians/ Media Specialist: Librarians/media specialists are staff members responsible for providing school library media services. These employees are responsible for evaluating, selecting, organizing, and managing media and technology resources, equipment, and related systems; facilitating access to information resources beyond the school; working with teachers to make resources available in the instructional programs; assisting teachers and students in media productions; and instructing students in the location and use of information resources (Florida Senate State Statute Personnel Definitions, 2011).

Saliency: a composite variable derived from the combination of the *time spent* and *criticality* scores as an indicator of the overall importance of that task to the job (Pace, 2007). The *saliency* score = 2(*Criticality* Rating) + *Time Spent* Rating/ 3 (Pulakos & Arad, 2000).

Time Spent: the rating of a task based on the amount of *time spent* by the school library media specialist on that task when compared to all other tasks performed by that person (Pace, 2007). *Time spent* is measured using a 5-point scale (1 = much less time to 5 = much more time).

Summary

The professional standards articulated in *IP1*and *IP2* conceptually guide and shape the work of school library media programs and specialists. The thematic emphases of *IP2* are collaboration, leadership and technology. With increased evidence that SLMS positively impact student achievement and rapidly growing routes to alternative certification for FSLMS, there is a need to investigate the perceptions and needs of both TC and AC FSLMS.

This study seeks to determine if there are significant differences between AC and TC FSLMS relative to their perceptions of *saliency* of collaboration, leadership, and technology tasks as outlined by *IP2*. The significant differences between these groups were measured through the use of a job task analysis. These job tasks are themed around collaboration, leadership and technology. The job task analysis combined responses about the time a FSLMS spends on a task and how critical they think that task is to their job. This *saliency* score reflects how important a FSLMS considers a job task to be. Measuring *saliency* scores around these themes will be used to determine if there are significant differences in the perceptions between TC and AC FSLMS.

In addition to *method of certification* and *saliency* scores, other variables that are reported in this study are the demographics of respondents, *highest degree earned*, *familiarity with IP2*, professional development experiences related to *IP2* and *attempts to implement IP2*.

In Chapter One, the purpose of the research questions and the general methods are identified. This study includes a survey, interviews and a researcher reflective blog. In Chapter Two, related literature is reviewed.

Chapter Two: Literature Review

Introduction

Chapter Two highlights critical points of current knowledge in the areas related to this study. The purpose of this literature review is to (1) describe the development and implementation of SLMS professional standards, (2) describe the role of a SLMS as related to the thematic frames of collaboration, leadership and technology, (3) identify trends in alternative certification research and practice in education that will illuminate similarities and differences in AC and TC SLMS and (4) describe the role of diffusion of innovation (standards) into practice in framing the study theoretically. The visual schema in Figure 3 illustrates the *Information Power* logo (AASL & AECT, 1998) on the left and each component of the literature review on the right.

Search Strategy

A search strategy was employed to identify the literature in the field and the gaps that exist in the literature in order to ground and reinforce the questions posed in this study. The search strategy integrates keywords and concepts using Boolean operators in databases such as, but not limited to, ERIC, Dissertation Abstracts International and the Library, Information Science, and Technology Abstracts (LISTA) in the EBSCO International database. Popular search engines such as Google Scholar and Yahoo were used to triangulate these databases. Google Blog Search and Bloglines yielded relevant media specialist generated content within blogs.

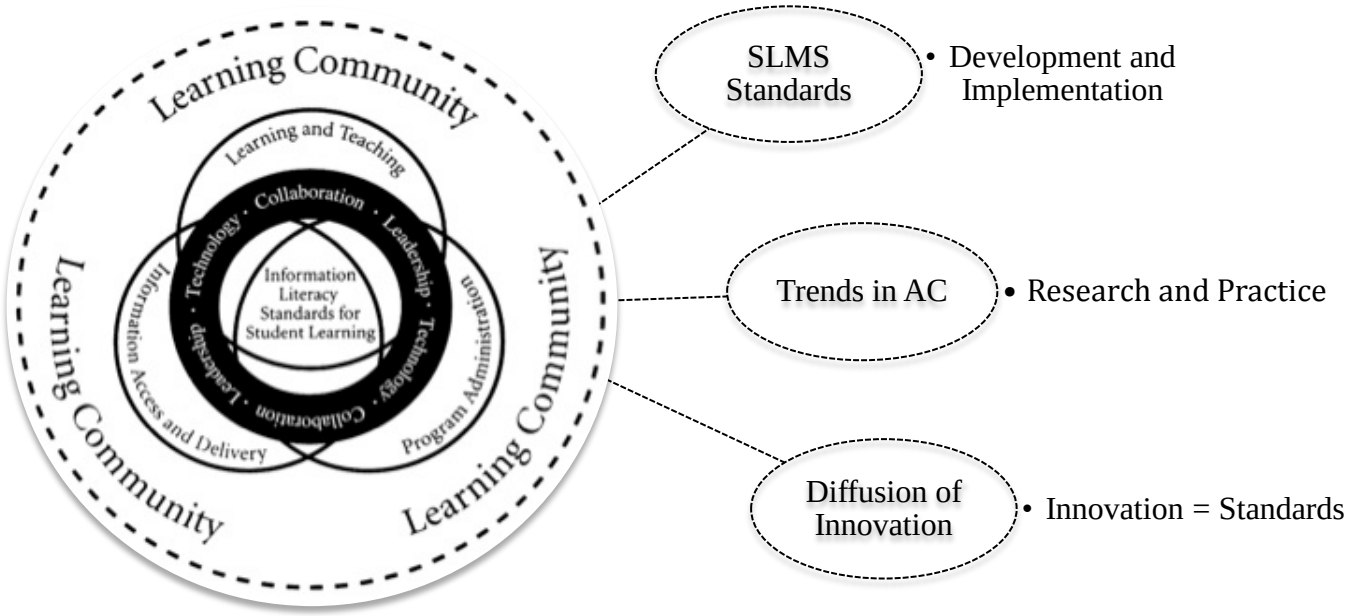


Figure 3 Visual Schema for Literature Review. Adapted from Chapter 3, "Collaboration, Leadership, and Technology," of *Information Power: Building Partnerships for Learning*. Copyright © 1998 American Library Association and Association for Educational Communications and Technology

Some keywords and phrases used as search terms for the literature review were Florida school library media specialist, school library media programs, national, standards, 21st Century skills, perceptions, training, alternative, certification, and professional development. With the increasing popularization in user-generated content, there are a variety of blogs and wikis that enable engagement and interaction in professional virtual communities. This online dialogue supports media specialist research and is increasingly relevant to media and library science scholarship.

SLMS Standards Development and Implementation

Historical highlights relevant to contextualizing this study as it relates to standards implementation are included in this section. "A Nation at Risk", released in 1983 by the National Commission on Excellence in Education recommended that schools adopt standards to measure academic performance. Standards establish what students need to know at various levels in their education (Pappas, 2007). Consequently, the National Council of Teachers of Mathematics (NCTM) developed national standards. With other content related professional organizations beginning to create standards, many states followed suit. Pappas (2007) notes that by 1993, 45 states were either in the process of developing standards or were in the midst of implementation.

In 1997, *Education Week* began an annual survey, Quality Counts, to monitor the standards-based reform movement. The findings were positive, including increased teacher collaboration, increased writing, and increased emphasis on standardized exams. Pappas (2007) was careful to conclude that these results were often reflective of the political desires of the historical moment and its writers. This was reflected in the No Child Left Behind (NCLB) legislation that stood as a cornerstone of its presidential

administration. *The Improving Literacy Through School Libraries Program* initiative was designed to enhance student literacy and academic skills by providing schools with current library materials and a well-trained and professionally certified school media specialist (NCLB Act of 2001, Sec. 1251; US Department of Education, 2012, Program Description). Pappas (2007) noted *The Improving Literacy Through School Libraries Program* was the first effort by the federal government to provide funding for school libraries since the initial Elementary and Secondary Education Act (ESEA) was funded in 1965 (Pappas, 2007). While this may seem a victory for some, Pappas (2007) argued that omitting SLMS from NCLB policy suggests that members of Congress did not understand the importance of SLMS to effective learning programs in schools (Pappas, 2007).

In the field of library media studies, standards are recommendations that guide the profession and are not enforced laws (Everhart, 2002). Standards for secondary school libraries were initially developed by the Committee on Library Organization and Equipment of the National Educational Association and published by the ALA in 1920 (Jurkowski, 2006, 2010). Published in 1945, *School Libraries for Today and Tomorrow* was the first set of national K-12 school library standards (AASL & ACET, 1998). Spurred by the Soviet Union's launch of Sputnik, school libraries incorporated a technology component in 1957 (Jurkowski, 2010). In 1960 the AASL formally incorporated technology by including audiovisual materials, and then in 1969, the joint committee of the AASL and the Department of Audiovisual Instruction of the National Education Association, currently entitled the ACET, prepared first joint standards for school library media programs (Jurkowski, 2006, 2010). These standards introduced the

terms media, media specialist and media program to the field of school library sciences (Jurkowski, 2010). In 1975, there was a publication of the AASL standards, *Media Programs: District and School* (Buzzeo, 2002). The development of the standards outlined in *IP1* in 1988 was unique because it is the first set of student-centered national standards that focuses on the impact of the school library media program on learning (Everhart, 2002). *IP2* includes information literacy standards to account for the advances in information technology (AASL & ACET, 1998). *IP2* includes guidelines and examples to support SLMS efforts in teaching and learning, information access, and program administration (AASL & ACET, 1998).

In addition to the standards outlined by *IP2*, there are also related information and communication technology (ICT) frameworks. In *Literacy and Learning in a Digital World*, Berger (2007) identifies the following:

- Framework for 21st Century Learning Skills, http://www.21stcenturyskills.org
- enGauge 21st Century Skills, http://ncreal.org/engauge
- The 21st Century Information Fluency Project (http: //21cif.imsa.edu/)
- Syracuse University's Center for Digital Literacy http://digital-literacy.syr.edu)
- National Educational Technology Standards

Jurkowski (2006) advocates that SLMS direct their professional development to keep up with the standards articulated in *IP1* and *IP2*.

The Role of a SLMS as it Relates to Collaboration, Leadership and Technology

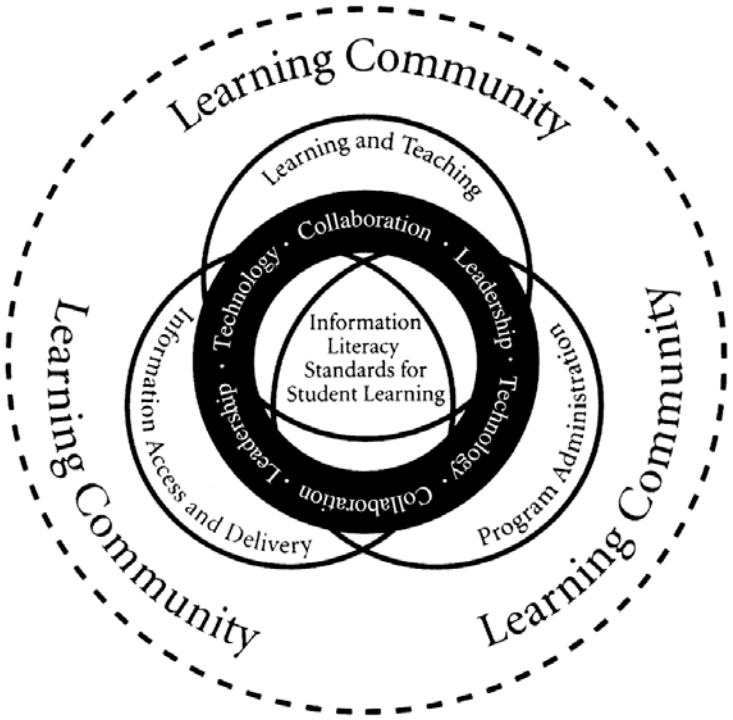


Figure 4 The Role of SLMS as it Relates to CLT from Chapter 3, "Collaboration, Leadership, and Technology," of *Information Power: Building Partnerships for Learning*.

The *Information Power* logo (see Figure 4) illustrates collaboration, leadership, and technology in the context of creating learning centered library media centers (AASL & AECT, 1998). Chapter 1, "The Vision" of *Information Power: Building Partnerships for Learning* describes the roles and responsibilities of the SLMS as that of a teacher, instructional partner, information specialist, and program administrator. The U.S. National Commission on Libraries and Information Science (NCLIS) Research Foundation Paper published by Scholastic Library Publishing synthesizes over 10 years of school library research in *School Libraries Work!* (2008). The report affirms that in practice these roles occur simultaneously.

Collaboration

The role of the SLMS as it relates to collaboration is emergent in design and practice. *IP2* (ALA, 1998) outlines a vision for the role of the SLMS as an important instructional partner (US NCLIS, 2008). Within this vision, SLMS collaborate across the curriculum with educators, take a lead role in developing policies related to information and communication, and design authentic learning and assessment tasks with individual teachers (ALA, 1998). The importance of collaboration is present in the *IP2* vision of the SLMS as an information specialist. In addition to providing expertise in the evaluation of information sources, SLMS are expected to integrate an awareness of information issues into collaborative relationships with teachers (ALA, 1998). Collaboration reappears as an important part of the SLMS's role in the vision within the SLMS role as program administrator in which the SLMS works collaboratively with members of the learning community to define the policies of the library media program and to guide and direct all activities related to it (ALA, 1998).

Loertscher's (1988) eleven level taxonomy of involvement in curriculum development is another popular classification for understanding SLMS collaboration. Loertscher's (1998) taxonomy is as follows: Level 1, No Interaction; Level 2, Self-Help Warehouse; Level 3, Individual Reference Assistance; Level 4, Spontaneous Interaction and Gathering; Level 5, Cursory Planning; Level 6, Planned Gathering; Level 7, Evangelistic Outreach; Level 8, Scheduled Planning in the Specialist Role; Levels 9 and 10, Instructional Design; and Level 11, Curriculum Development. SLMS go through phases over time and achieving a completely collaborative environment may take many years (Lamb, 2011).

SLMS have a unique opportunity for collaboration because of their positionality (Kymes, 2011). The SLMS works with the entire learning community and curriculum (Hughes-Hassell & Harada, 2007; Stephans, 2011; Woolls, 2008). Evidence exists that this collaboration is beneficial to students (Russell, 2004). There were13,000 student participants in the Ohio study (Todd, Kuhlthau, & Oelma, 2004). There were approximately 100% of student participants said that indicated that the school library and SLMS helped to improve their academic experience. The ongoing Library Service Center of the Colorado State Library studies (Lance, et. al., 1993; Lance et. al. 2000; Francis, Lance, & Lietzau, 2010) offer support for library media specialists and teachers working collaboratively. Findings illustrate how student achievement increases based on SLMS collaboration with teachers. The findings of this study demonstrated that elementary students that had a highly collaborative SLMS scored 21% higher on the Colorado Student Assessment Program (CSAP) reading scores than those in a school in which the SLMS did not collaborate with other educators (Lance, et. al., 1993; Lance et. al. 2000). In an Oregon statewide research study (Lance, Rodney & Hamilton-Pennell, 2001), researchers concluded that in high schools in which the SLMS worked with other teachers, students were twice as likely to earn higher grades on the Oregon Statewide Assessment reading/language exams.

Similarly, in a state-wide study done in 657 Illinois schools representing all grade levels, (Lance, Rodney and Hamilton-Pennell, 2005; US NCLIS, 2008) findings indicated that in every grade level, students in schools with more library staff earned higher scores on reading exams. Similarly, in elementary and middle schools students in schools with more library staff performed better on writing assessments. In elementary schools with a

strong media program, 5.1% more students met or exceeded the writing standards than in those elementary schools without a strong media program. In middle schools with a strong media program, 10.2% of students performed better those without a strong school library media program. The Illinois study (Lance, Rodney and Hamilton-Pennell, 2005) also evidenced the benefit of collaboration between SLMS and teachers. According to the Illinois study (Lance, Rodney and Hamilton-Pennell, 2005), 11th grade writing ACT scores were highest when SLMS and teachers had rich collaborative experiences. There were 1.8% more students that met or exceeded standards in writing ACT in high schools with a strong media program than those without.

The correlation between collaboration and increased student achievement is further illustrated in a statewide study, *How Students, Principals, and Teachers Benefit from Strong School Libraries*, (Lance, Rodney & Russell, 2007). Similar to the research design of this study, *How Students, Principals, and Teachers Benefit from Strong School Libraries*, (Lance, Rodney & Russell, 2007), this Indiana study had both a quantitative study and qualitative component. The quantitative component explored results that are consistent with past studies and the qualitative component explored issues that impact student achievement like perceptions of SLMS, principals and teachers. A random sample of 924 SLMS from 440 schools participated in a survey. The survey included information about library hours, staffing, library collections, technology and funding. These variables were then analyzed with ISTEP+, reading, language arts and math scores. Authors (2007) found student achievement increased when principals valued SLMS and teachers initiated collaboration. At the elementary school level, teachers who reported self-initiated and frequent collaboration with the library media believed that this

collaboration resulted in improved information literacy instruction. For example, third grade students in schools with stronger library had seven to eleven percent higher test results than those students in schools with weaker libraries. In high schools, there were better test results with SLMS and teacher collaboration on the design and delivery of instruction (Lance, Rodney and Russell, 2007).

In addition to studies demonstrating the benefits of SLMS working as collaborators with teachers, there are also several well-documented obstacles to collaborating with members of the learning community. For example, fixed scheduling is a common inhibitor to the media specialists' opportunities to collaborate (Bishop & Larimer, 1999; Callison, 1999; Russell, 2003). If SLMS do not have flexibility in their schedule, it makes it logistically difficult to collaborate with educators in the learning community.

Leadership

The role of the SLMS as it relates to leadership is also dynamic and evolving in the field of library media sciences. *IP2* provides a framework for strategic leadership that incorporates standards, a planning process, and an evaluation scheme (Donham, 2005). According to vision of the role of the SLMS as outlined by *IP2,* the SLMS's role as teacher includes being a curricular leader. As an instructional partner, SLMS are expected to take lead roles in communication and information policy and practices. *IP2* notes that SLMS should also provide leadership in their role as an information specialist. SLMS demonstrate this leadership by bringing an awareness of information issues into collaborative relationships with teachers, administrators, students, and others; and by modeling for students and others strategies for locating, accessing, and evaluating

information. The role of SLMS as leader emerges in the *IP2* vision of the SLMS as program administrator. This role requires SLMS to lead the school library media program (ALA, 1998).

In the study *Educating Pre-service School Librarians to Lead: A Study of Self-Perceived Transformational Leadership Behaviors,* Smith (2011) sought to determine the factors that impacted the level of self-perceived transformational leadership potential in pre-service school librarians who participated in Project Lead, a master's degree program in library and information studies focusing on leadership development. The study included a purposeful sample of 30 Project Lead students from 6 counties in Florida. Data were collected using a quantitative survey and a qualitative survey. The latter was characterized by use of open-ended questions. The study found that participants' leadership training impacted their response to a Leadership Practices Inventory (LPI). Findings suggest that there were significant differences between the mean scores of the self-perceived leadership practices of the study population and the national population (Smith, 2011). The study population scored significantly higher on two LPI subscales—Modeling the Way, $t(47.01) = 3.865$, $p = 0.001$ (two-tailed) and Enabling Others to Act, $t(49.39) = 2.610$, $p = 0.014$ (two-tailed) (Smith, 2011). The qualitative analysis further revealed that the participants learned skills in leadership through participation in Project Lead (Smith, 2011).

Another landmark study *Student Learning Through Wisconsin School Library Media Centers* (Smith, 2006), which was commissioned by the Department of Public Instruction examined the impact of SLMS leadership on student achievement. This statewide survey of SLMS, teachers and students included data collected from 855

SLMS. Qualitative data were collected from 51 randomly selected elementary, middle and high schools. Findings suggest that student achievement increased on all grade levels with a well-staffed library program. There were differences between well-staffed libraries and non-well staffed libraries. The libraries with a full time certified SLMS and library aides performed better on statewide-standardized reading and language arts exam. In elementary school the difference was a 3.2% and 3.4%. In middle school, well-staffed libraries performed 9.2%better and in high school 19% better.

Technology

IP2 notes that in their role as teacher, the SLMS teaches the uses of technology. As a program administrator, the SLMS is also expected to master "sophisticated electronic resources and maintains a constant focus on the nature, quality, and ethical use of information available in these and in more traditional tools" (AASL & AECT, p. 5). According to *School Libraries Work!* (US National Commission on Libraries and Information Science, 2008) SLMS are leading the way for technology in schools and extend the *IP2* expectations to technology integration support in classrooms. SLMS often support the role of a technology coordinator or fill that role if one does not exist (Perez, 2010). SLMS are both technologist and technician (Jurkowski, 2010). The media specialist often serves as the technology leader in the school by providing staff development and modeling ethical and effective uses of technology (Everhart, 2007; Perez, 2010). For example, media specialists were some of the first to use wikis, blogs, and podcasts (Everhart, 2007; Dees, Alexander & Besara 2007; Kymes, 2011). When describing the role of the SLMS as it relates to technology, Donham (2005) identifies the

SLMS's role as technology advocate, coordinator, manager, trainer, teacher, and policy maker.

In the 2003, Debra Lau Whelan led a national survey on behalf of the *School Library Journal* and rated professional priorities of SLMS. In the study entitled *Why Isn't Information Literacy Catching On*, 3000 SLMS were mailed a four-page questionnaire. Of this group, 783 SLMS (26%) responded. The survey sample included SLMS from middle schools (33%), high schools (32%), elementary schools (23%) and schools categorized as K-8 or 7-12 (12%). Among the SLMS who responded, 72% percent had a MLS and approximately 70% of SLMS without a MLS had some type of library certification. According to the study (Whelan, 2003), the top priorities of a media specialist were providing students and teachers with the source materials they need (97%), collection development (94%) and recommending materials (88%). Also included in this list of priorities were information literacy planning and instruction (76%), professional development (62%), circulation and cataloging issues (59%), book talking/ storytelling (42%) and technology/troubleshooting (42%).

In their study, *School Library Media Specialists Inform Technology Preparation of Library Science Students: An Evidence-Based Discussion*, researchers Snyder and Miller (2007) asked 1053 Pennsylvania SLMS to rank technology topics for a library science program on how to use and integrate technology in instruction. More than 90% of respondents rated the topics *Standards for Information Literacy*, *Creating a Unit Plan Using Technology*, and *Internet Integration* as in the "must be included level" of the Likert scale. *PowerPoint* and the *Ability to Identify and Evaluate Hardware and Software* were topics that scored at the 78% and 73% level. Results also found that *Web*

2.0 was a priority for SLMS with 76.2% of respondents rating it as a topic that must be included. *Podcasting* was a topic that 75.6% of SLMS respondents answered must be included. Among the technologies that had rankings low on the list of SLMS priorities were: *Multi-user Virtual Environments MUVES* (34.5%), *Social Networking* (28.8%), *Mashups* (21.8%), and *Gaming* (19.6%). Open ended survey question responses revealed that SLMS identified lack of time for professional reading, development and training, lack of equipment and intellectual freedom and access issues as hindrances to the use of technology. The syllabus of the SLMS preparatory class was changed to reflect these findings.

In a research study entitled *The Impact of New York's School Libraries on Student Achievement and Motivation* authors Small, Snyder and Parker (2009) explore the influence of the SLMS on technology use, the relationship between principals and their SLMSs and the level of service to students with disabilities. Of importance to the proposed study was the research question related to the ways in which SLMSs influence the use of technology by both students and teachers. The study included an online survey for NYS SLMS and a slightly adapted online survey for principals with eight subscales. The instrument had fifty-five Likert scale questions and ten questions about the relative frequency of job tasks performed by SLMS. Questions pertaining to the SLMS and school library media program were also included. Finally, an open-ended comment section was also included to engage the emic perspective. Responses from 1,612 (38.5%) of SLMS from 62 counties in NYS were collected. NYS principles also responded with 562 (13%) completing the survey. Since NYS does not mandate a certified SLMS at the elementary level, this study also sought to ask whether or not a certified SLMS makes a

difference in student learning. Findings provide empirical evidence that certified SLMS do enhance the learning environment.

As it relates to the ways in which SLMS influence technology among students and teachers, this study found that 74% (1193) of SLMS respondents provide guidance to students in the use of digital resources at least once a week, 57% (919) of SLMS respondents assist students in using information in a variety of media formats (books, CDs, DVDs, etc.) at least once a week, and 65% (1048) of SLMS respondents assist staff in using information in a variety of media formats (books, CDs, DVDs, etc.) at least once a week. The researchers also noted that 91% (1167) of SLMS respondents reported having an automated circulation system and 46% (743) of SLMS respondents provided students with access to the library catalog from home (Small, Snyder & Parker, 2009). The authors concluded that SLMS have an impact on students and teachers use of technology in and outside of school.

Trends in Alternative Certification Research and Practice in Education

In response to teacher shortages in the 1980's, alternative certification emerged out of the need to develop new ways of recruiting non-traditional candidates for teaching and creating pathways for certifying them to teach (Feistritzer, 2008). Since the 1980s, alternative certification has evolved to become a way to recruit, train and certify educators (Feistritzer, 2007). Feistritzer (2008) noted that there has been the most growth in the availability of alternate certification routes for teachers since 2000; during which time one-third of current alternative routes to teacher certification have been created. Feistritzer writes, "In 2007, all 50 states and the District of Columbia report they have at least some type of alternate route to teacher certification. All told, 130 alternate routes to

teacher certification now exist in these 50 states and the District of Columbia. In addition, these states report that approximately 485 alternate routes programs are implementing the alternative routes to teacher education they established (Feistritzer, 2007, p. 2)." Other researchers in the field support this assertion (Feistritzer, 1994; Hawley 1990; Birkeland & Peske, 2004).

There has been some criticism of AC SLMS. For example, from 1992-2000, teachers in Texas could take the state test, called the Examination for Certification of Educators in Texas (ExCET), for endorsement as a school librarian. In some instances, this resulted in poorly prepared SLMS. A district coordinator of school libraries commented on 15 teachers who were placed into libraries after passing the state test: "There are two components to any library program. One is serving patrons and getting them resource materials. The second is librarianship and management, and that's where they were absolutely clueless. They didn't know how to order materials, what resources to go to, or how to meet needs as far as district goals are concerned" (Glick, 1999, p. 16). The state director of library services added that she received countless calls from exam-certified librarians who didn't know how to run their libraries. On-the-job floundering and lack of realization of the difficult role they had assumed contributed to Texas stopping the practice of alternative certification (Glick, 2000; Everhart, 2002, p. 4). Even though there have been challenges with SLMS alternate certification practices, this has not slowed the movement, especially in Florida.

Florida has been using alternative routes for teacher certification since 1997. In 2001-02, there were just five school districts participating, comparable to the participation level of most states during that time. In 2002-2003 Florida state law

required every school district to implement an alternative route program. The first year of mandatory alternative certification in Florida was 2002-2003. By 2004, 2,272 individuals had participated in an alternate route program in Florida. The National Center for Educational Information (NCEI) contacted all of these individuals to complete the survey online. NCEI's contractor, the Florida Center for Interactive Media and educational researchers at Florida State University provided technical and other assistance to complete this survey (Feistritzer & Harr, 2008). These studies were replicated and evaluated over time.

According to the *Alternative Teacher Certification in Florida: Fourth Annual Progress Report* (Milton, Flood & Dukes, 2006), the Florida Department of Education (FLDOE) collected both quantitative and qualitative data to guide enhanced program effectiveness during the first year of mandatory alternative certification in Florida. Evaluation continued and expanded during subsequent years. The reports (Milton, Flood & Dukes, 2006) covered program and research findings only on state-approved district alternative certification programs. By 2005-2007, the ongoing evaluation had expanded to include web-based survey responses from 1680 (40%) AC participants, 402 mentors, 42 district AC coordinators, and 268 building administrators assessing 275 teachers who participated in a approved competency-based alternative certification programs (Milton, Flood & Dukes, 2006). AC survey respondents were often older that TC counterparts, 30% of survey respondents were male and that the racial representation of AC participant respondents was equivalent to the TC teacher population (Milton, Flood & Dukes, 2006). Only 20% of AC survey participant's held a master's degree or higher (Milton, Flood & Dukes, 2006). The survey results noted that AC teachers helped to fill the areas of

highest need and often took positions in middle or high schools (Milton, Flood & Dukes, 2006). Almost 90% of AC survey respondents indicated that they would return the following year and over 90% of principals reported that the AC teachers met the criteria for rehiring (Milton, Flood & Dukes, 2006).

Since the study on the initial implementation of AC programs (Milton, Flood & Dukes, 2006), continued evaluation of District Alternative Certification Programs (DACPs) had been conducted by researchers from the Florida Center for Interactive Media and the Department of Educational Leadership and Policy Studies at Florida State University (Milton, Curva & Milton, 2011). The most recent report (Milton, Curva & Milton, 2011) included analysis from the last six years of data and responses from 1,198 teachers and 371 principals (Milton, Curva & Milton, 2011). 542 (49.6%) of these respondents were from DACP programs. Differences in age, gender and racial representation have remained stable over time (Milton, Curva & Milton, 2011). DACP teachers that responded to the survey have also continued to fill high need areas and 71.3% teach at the secondary school level. Overall, the DACP respondents noted that the teacher preparation program was a valuable experience (Milton, Curva & Milton, 2011). Research findings indicated that the DACP completers felt that classroom management skills should come earlier in the program (Milton, Curva & Milton, 2011).

One drawback of the research is that it is often developed by program providers and does not always give an objective perspective. Some argue that there is an insufficient amount of research in the broader field of alternative certification in education. For example, very few studies were conducted on the early state based alternative route programs (Feistritzer & Harr, 2008; Feistritzer, 2008).

Florida is an ideal place for this study because it is a leading state in alternate certification; there is an exam add-on component; and there is insufficient research on how alternative certification is affecting the SLMS field. There is a dearth of quality research with replicable criteria-especially when dealing with alternative routes (Feistritzer & Harr, 2008). The foci of this study are the exam certified SLMS as compared to TC SLMS.

Diffusion of Innovation (Standards) into Practice

The purpose of this section of the literature review is to describe diffusion of standards into practice using a diffusion of innovation theoretical framework. Diffusion of information is a lens for viewing the implementation of standards among SLMS. With standards being the innovation of interest, this study uses diffusion of innovation as a theoretical framework for investigating how AC SLMS perceive their standards as outlined by *IP2* (1998) and how this shapes their perceptions of collaboration, leadership and technology.

In 1962, Everett Rogers introduced the idea of diffusion of innovation. He defines an innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p.12). In this study, the innovation is the standards outlined by *IP2* (1998). Roger (2005) asserts that diffusion of innovation is a social process in which perceptions are shared amongst individuals. This communication of a new idea from person to person is shaped through a process of social construction. This social construction of an idea leads to social change. The diffusion that Rogers (2005) describes is a form of social change in which the change happens in the structure and function of a social system. Thus, social change happens when new

ideas are shared and shaped by members of a community (Rogers, 2005). This is a framework with which perceptions of standards by SLMS can be understood. In this study, "*diffusion* is the process by which (1) an *innovation* (2) is *communicated* through certain *channels* (3) over time (4) among the members of a *social system*" (Rogers, 2005, p. 14). Figure 5 illustrates the relationship between the percent of adoption and time. It is anticipated that the responses of participants will follow a similar pattern as the diffusion process suggests.

See the model in Figure 5:

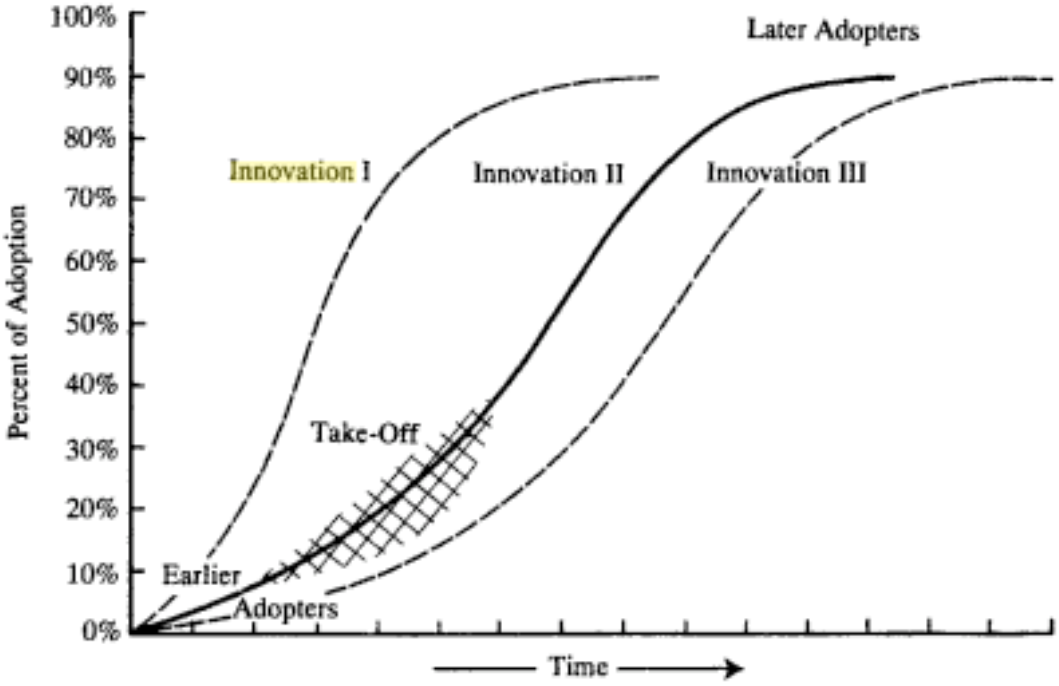


Figure 5 The Diffusion Process

"The innovation-decision process involved time in the sense that the five steps usually occur in a time-ordered sequence of (1) knowledge, (2) persuasion, (2) decision, (4) implementation, and (5) confirmation" (Rogers, 2005, p. 21). This five-step innovation-decision process is used to categorize responses of the questions related to *Familiarity to*

IP2. This study uses descriptions of that process in order to frame how AC and TC SLMS compare in their *familiarity with IP2*. Rogers (2005) uses adopter categories to describe individuals in different stages of the diffusion process. Based on the degree to which an individual adopts an innovation, adopters can be classified into the following categories; *innovators*, *early adopters*, *early majority*, *late majority* and *laggards* (Mahajan, 1990; Rogers, 2005). *Innovators* are the first 2.5% of the individuals to adopt an innovation. *Early adopters* are individuals in the next 13.5% of the system. Members of this group often have the most influence on the actions of other members of the system (Rogers, 2005). *Early majority* are the next 34% of individuals in the system. They tend to adopt an innovation after a period of time. The *late majority* represents the next 34% of individuals in a system to adopt and innovation, choosing to adopt an idea after the average person in a system. *Laggards* are the last 16% to adopt an innovation. *Laggards* are often the proponents of traditional methods (Roger, 2005). Tables 3, 4 and 5 illustrate how the innovation-decision process and adopter categories are used to categorize responses related to *familiarity with IP2*.

Table 3: Diffusion of Innovation Stages Aligned with *Familiarity with IP2*

DI Stage	Adopter Category	Familiarity w/ IP2	Point Value
Confirmation	Innovators	More than Once - Extremely Familiar	5
Implementation	Early Adopters	One Time-Very Familiar	4
Decision	Early Majority	Scanned – Familiar	3
Persuasion	Late Majority	Heard of - never read – Somewhat Familiar	2
Knowledge	Laggards	Never heard-of - Not Familiar	1

Table 4: Diffusion of Innovation StagesAligned with *In-services Attended on IP2*

DI Stage	Adopter Category	*Attended In-service on IP2*	Point Value
Confirmation	Innovators	Four or More	5
Implementation	Early Adopters	Three	4
Decision	Early Majority	Two	3
Persuasion	Late Majority	One	2
Knowledge	Laggards	None	1

Table 5 Diffusion of Innovation Stages Aligned with *Attempts to Implement IP2*

DI Stage	Adopter Category	*Attempts to Implement IP2*	Point Value
Confirmation	Innovators	Make Continuous Attempts	5
Implementation	Early Adopters	Made Several Attempts	4
Decision	Early Majority	Made Some Attempts	3
Persuasion	Late Majority	Made One Attempt	2
Knowledge	Laggards	Made No Attempt	1

Each respondent will be assigned a level on the scales illustrated based on his or her scores. These corresponding point values in the response align with a diffusion of innovation stage and adopter category. Fractional scores are not necessary because the 5 levels of familiarity, in-services experiences and *attempts to implement IP2* align with a diffusion of innovation stage and adopter category. In this study diffusion of information is a used as a way to describe the stages of AC and TC SLMS as it relates to their *familiarity with IP2,* experiences with in-services on *IP2* and *attempts to implement IP2*.

Summary

The purpose of this literature review is to frame the study in the context of the related literature and establish a theoretical framework. This purpose of each section is to (1) describe the development and implementation of SLMS professional standards, (2) describe the role of a SLMS as related to the thematic frames of collaboration, leadership and technology, (3) identify trends in alternative certification research and practice in

education that will illuminate similarities and difference in AC and TC SLMS and (4) describe the role of diffusion of innovation (standards) into practice in framing the study theoretically. In Chapter Three, the methods used in this study are discussed.

Chapter Three: Methods

Introduction

The purpose of this study is to describe and explain the perceptions of SLMS. The questions that guide the study are as follows:

1. Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?
2. Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?
3. What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?

In this chapter, the data collection tools described are a survey, interviews, researcher reflective blog and pilot study.

Role of the Researcher

In this study the researcher was the blogger, collected survey data, conducted interviews, and analyzed data. The researcher used Express Scribe to transcribe interviews. The researcher was trained and completed a series of pilot interviews in three graduate level qualitative research methods and three quantitative courses. In the qualitative paradigm, the researcher is considered an instrument that uses intuitive and creative inclinations throughout fieldwork (Janesick, 2000).

Assumptions Study

Assumptions in this study are:

- In alignment with the *Learning and Teaching Principles of School Library Media Programs* outlined in *IP2* (American Library Association, 2006), SLMS work (clustered around collaboration, leadership and technology) is beneficial to learning communities.
- SLMS have the potential to promote and implement high standards related to technology, collaboration and leadership.
- Participants in the study are representative of the SLMS in the state of Florida.

Survey Development and Validation

The first iteration of the survey was developed and validated by PDRI (Bruskiewicz et al., 1996). In this process, PDRI (Bruskiewicz et al., 1996) analyzed the job requirements, engaged stakeholders about the survey and compiled quantitative responses of practitioner feedback. After using this information to develop questions, PDRI consulted experts on the wording and relevance of the questions posed. Revisions were then made on the instrument.

For his research, Pace (2007) validated an altered version of the survey. In 2007, a committee of six Subject Matter Experts (SMEs) participated in a survey instrument validation process. This committee was comprised of school district school library media supervisors and National Board for Professional Teaching Standards (NBCTS) certified SLMS from throughout the state of Florida. The process was conducted with the consultation of several university professors who specialize in the area of school library media programs (Pace, 2007). Pace asked SMEs to evaluate the relevance of each task to

SLMS work (Pace, 2007). Items selected by four or more SMEs were included in the final survey (Pace, 2007).

In 2011, the researcher of the proposed study validated the survey to determine whether or not the job tasks were still relevant to the work of SLMS. The researcher of the proposed study consulted five university professors and five doctoral candidates, all of whom specialize in the area of school library media programs, to ask the degree to which the questions realistically reflect the work of SLMS. SME responses indicated that the survey questions were relevant to the experiences of SLMS. Based on their positive feedback, survey items from Pace's 2007 study were repeated in the pilot study and were used in this study.

The Survey Structure

As illustrated in Figure 6, a greeting and statement of informed consent preceded the web-based survey. Part One of the survey related to demographic and contextual variables in order to describe the demographic characteristics of participating SLMS. The specific factors of interest to this study were (a) *gender* (b) *age* (c) *ethnicity* and, (d) number of *years as a SLMS*. Participants were also asked to state their *highest degree earned*, type of certification and *familiarity with IP2* (1998).

In Part Two of the survey, the job task analysis, there were 37 items. Of these items, 14 represented collaboration, 10 represented technology and 13 represented leadership. For the job task analysis items, participants identified a *time spent* and *criticality* score for each survey item. Part Two of the web-based survey provided data that was used to compute the *saliency* score for data analysis (Pace, 2007).

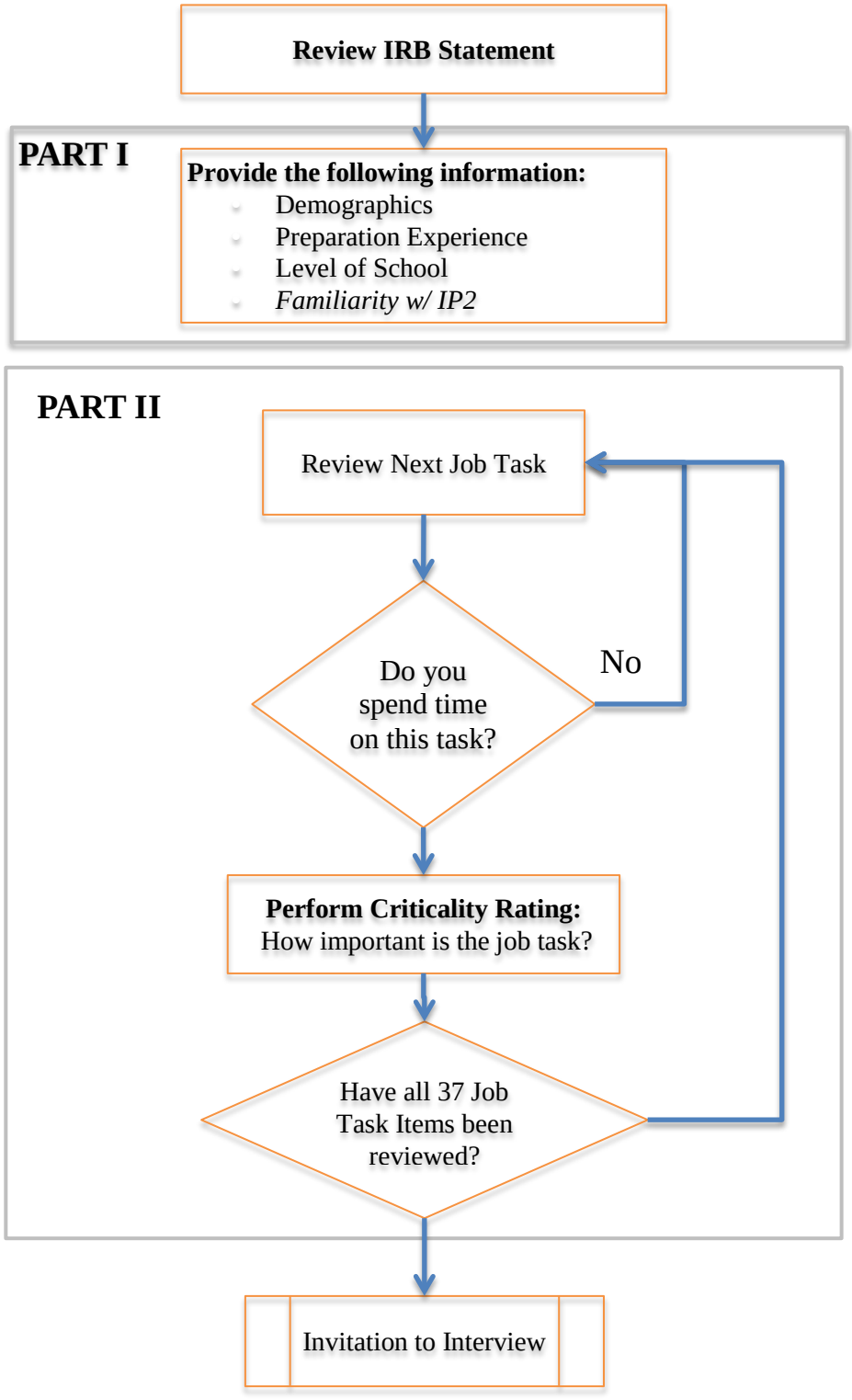


Figure 6 Survey Flowchart

The *time spent* segment used a 5-point scale (1=much less time to 5=much more time). If the task was not perceived as part of the job, the *time spent* is assigned a zero rating. The prompt read, "Please read each prompt and note how much time you spend on the task indicated compared to how much time you spend on other things you do on the job." For those activities that were a part of the job, a follow-up question related to the criticality of the job task was posed, these questions were noted as Part Two A.

In Part Two A, respondents were asked about the *criticality* of a job task. *Criticality* is the rating of a task based on how important its completion is to the effective accomplishment of the overall job. If the response is 0, indicating that as job task is *not a part of the job*, participants continued to evaluate the next job task. If the condition of time spent was met (response is on the *time spent* prompt is 1-5), a conditional question was asked. This *criticality rating* prompt was "Using a 1-5 scale (1=unimportant to 5=crucial), how critical it is to complete this activity successfully?" As noted in the prompt for this follow up *criticality* rating a 5-point *criticality* scale was used (1=unimportant to 5=crucial). The *saliency* formula was calculated by multiplying the *criticality* rating by two, and then adding the *time spent* rating, and finally dividing the resulting number by three (Pulakos & Arad, 2000; Pace, 2007). To maintain confidentiality of this data, the researcher managed the survey and maintained the passwords. The survey (see Appendix F) was hosted by a password protected and secure site at www.surveyselect.net. When the study is completed, data collected from participants will be stored on a DVD in a locked file cabinet for 5 years.

The Interview Protocol

Before the pilot study, five SMEs made up of school library media district

supervisors and practicing SLMS validated the interview questions. They received the questions via email and completed a *Subject Matter Expert Interview Validation Feedback Form* (Appendix B). As an additional validating measure for interview questions, interviews with three SLMS and a focus group consisting of four SLMS were conducted at a FAME meeting. All participating SLMS affirmed that the interview questions were easy to understand. SMEs also indicated that they could see the patterns of collaboration, leadership and technology reflected in the questions (see Appendix B). Based on SME input, interview questions were included in the pilot study and were repeated in the study.

In this study, interviews over time with a convenient purposeful sample of four SLMS were conducted to triangulate and extend the findings of survey-generated data. Each SLMS was interviewed at least twice for approximately one hour. Further interviews were completed when needed for saturation. Before the first interview, participants received a copy of the approved IRB approval letter (Appendix P), and the informed consent form via email. Participants were given a copy of the interview questions via email two days before each interview (Janesick, 2004, 2011). At the beginning of the first interview, the researcher reviewed and obtained the participant signature on the informed consent form. During the interview, responses and observations were noted. After the interview, the researcher debriefed responses with the interviewee. The recording medium was checked before, during and after the interview. The protocol for the second interview was developed from the quantitative web-based survey items and from the literature review. The second interview began with a review of the informed consent form and member check to preserve internal validity. According

to Merriam (1998), member checks involve taking data and tentative interpretations back to the people from whom they were derived and asking them if the results are plausible. A number of writers suggest doing this continuously throughout the study. After each interview, Member Check Form (see Appendix I) was sent to participants with the draft copy of the verbatim transcripts of the interview.

The interview protocols of Table 6 and 7 illustrate themes, interview questions and type of questions. The labels assigned to the type of question are based on the Kvale (1996) typology of interview questions. According to Kvale (1996), there are introducing questions, follow-up questions, probing questions, specifying questions, direct questions, indirect questions, structuring questions, silence and interpreting questions. This classification also integrates Janesick's (2004, 2011) examples of types of interview questions (Janesick, 2004, 2011; Mishler, 1986; Spradley, 1979).

As Indicated in Table 7, the second interview was informed by analysis of survey results and the first round of interviews with an emphasis on the research question "What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?" This question was designed to encourage the emic perspective of participants. The interview format was conducive to generating the rich thick description that the open-ended research question needs. The researcher conducted and analyzed interviews based on an interview guide with a reflective approach (Kvale, 1996). Interviews were transcribed, analyzed, verified and reported.

Table 6: Interview Protocol I

	Interview Question	Type	Rationale
1	Can you talk about your decision to become a school library media specialist?	Personal vision-building, Introducing Question, Basic Descriptive Question	To establish vision and begin the interview.
2	How did you become a school library media specialist?	Experience/ Example Question	Designed to describe the method of certification earned.
3	What are the most important elements of your work as a media specialist?	Structural/ Pragmatic Question	Designed to prioritize job tasks.
4	What are the least important elements of your work as a media specialist?	Structural/ Pragmatic Question	Designed to prioritize job tasks.
5	What type of training, certification and professional development are appropriate to successful school library media specialists? Do AC and TC have different needs?	Structural/ Pragmatic Question, Compare/ Contrast Question	Designed to lend insight to the study goals.
6	What are some recommendations for AC vs. TC SLMS professional development as it relates to collaboration? What are some recommendations for AC vs. TC SMLS professional development as it relates to leadership? What are some recommendations for AC vs. TC SLMS as it relates to technology?	Descriptive Question	Designed to lend insight into study goals.
7	Can you describe an unsuccessful training, certification and/or professional development related to collaboration, leadership and/ or technology that you have experienced in your career?	Simple Clarification Question, Compare/Contrast Question	Designed to clarify prior question, extend response and provide examples.
8	Can you describe a successful training, certification and/or professional development related to collaboration, leadership and technology that you have experienced in your career?	Simple Clarification Question, Compare/ Contrast Question	Designed to clarify prior question, extend response and provide examples.
9	Are there any important items we missed and is there anything that you would like to add to our conversation today?	Simple Clarification Question	Designed to clarify, extend and close the conversation.

Table 7: Interview Protocol II

	Interview Question	Type	Rationale
1	In our last conversation you indicated that . . .types of training, certification and professional development are appropriate and important for successful school library media specialists. Is that an accurate description of your answer?	Interpreting Question, Simple Clarification Question, Structural/ Pragmatic Question	Member Check
2	An idea that was surprising in our last conversation was . . .. Can you explain further?	Interpreting Question, Simple Clarification Question	Designed to clarify prior question, extend response and provide examples.
3	Are you aware of the content and/ or standards for media specialists of the Information Power 2 text? How did you learn about this information? If so, how does it impact your work?	Structural/ Pragmatic Question	Designed to determine how knowledgeable participants are on *IP2* and standards in order to assess how it impacts their work.
4	Are professional standards for media specialists necessary? Why or why not?	Structural/ Pragmatic Question	Designed to illustrate how participants perceive the ideal professional standards.
5	If you were to create standards for media specialists, what would they include? What process would you use to develop and implement these standards?	Structural/ Pragmatic Question	Designed to illustrate how participants perceive the ideal elements, development and implementation for professional standards. The scenario is used to connect the participant personally to the question.
6	Are there any important items we missed and is there anything that you would like to add to our conversation today?	Simple Clarification Question	Designed to clarify, extend and close the conversation.

Researcher Reflective Blog

According to Janesick (2004) "the act of journal writing may be incorporated into the research process to provide a data set of the researcher's reflections on the research act" (p.143). The researcher reflective journal in the form of a blog is a heuristic tool that fosters critical reflection of research processes and interview transcripts (Janesick, 1998). The first researcher reflective blog, www.21ms.weebly.com launched after the concept paper was approved. The researcher maintained a researcher reflective blog that outlined the research process, articulated researcher reflections and engaged members of the SLMS community. Before the study, the blog was open to the public and did minimum harm, no more than experienced in everyday Internet usage.

After the doctoral committee and USF IRB approved the proposal, a separate researcher reflective blog was created at www.21ms2.weebly.com. The second blog was open only to the researcher, committee members, and a doctoral student assistant in order to ensure the trustworthiness of the researcher reflective data. The selected graduate assistant had required training in human research protections and advanced research methods and gave feedback on the analysis of the blog. The graduate assistant did not have contact with subjects or subjects' private, identifiable information for research purposes.

Pilot Study

A pilot study was conducted in Clayton County, a Georgia school district, in order not to compromise the proposed study data by contaminating the potential pool of Florida respondents. Georgia does not have the same alternative certification methods as Florida. According to Jesseman, Page and Underwood (2012), only Georgia, Maine, Oregon and

Texas allow for SLMS initial employment without full teacher certification. However, Georgia is one of the fifteen states that require a Master's Degree as the entry level for the SLMS. While Georgia's entry level for school library media is indeed the Master's level, one can still be hired while working on the degree/certification prior to completing the program in some school districts in Georgia (Snipes, 2009). The goal of the pilot was to test the online survey software, survey questions, interview protocol, and data analysis measures. At the time of the study, there were 67 Clayton County SLMS and they were each invited via email to take the web-based survey. One participant was selected for the interview component of the study. Findings from the pilot helped to refine the study to include better interview questions, improved survey platform and content and an improved researcher reflective blog. After the pilot study, items from Part One of the survey, extraneous demographic and contextual variables were omitted. For example, school environmental variable items were omitted to make the overall survey shorter and more aligned with the updated research questions. Based on the review of pilot results, the stem of Part Two of the survey was refined to clarify the scale used in the job task analysis. See the Appendix L for detailed pilot study results.

Population

The target population for this study was Florida K-12 public school SLMS. Private schools including charter and religion-based schools were excluded from the sample. As stated in Chapter One, in 2012 the researcher worked with the SLMS state supervisor to identify updated accurate counts of SLMS. Population numbers according to gender and age are illustrated in Table 8.

Table 8: 2012–2013 SLMS Total Population by Race and Gender

Race	Females	Males	Total
Hispanic or Latino	239	51	290
Not Hispanic or Latino	1641	419	2060
Ethnicity Unknown	0	0	0
Total	***1880***	***470***	***2350***
Racial Categories	**Females**	**Males**	**Total**
American Indian / Alaskan Native	5	2	7
Asian	18	5	23
Native Hawaiian / Pacific Island	1	0	1
Black or African American	246	66	312
White	1343	340	1683
Race Unknown	257	67	34
Total (Racial/ Ethnic Categories)	***1870***	***480***	***2350***

Sample

According to the Florida District Staff Salaries of Selected Positions 2010-2011 collected by the Florida Department of Education, as of August 8, 2011, there were 2,606 Librarian/Media Specialists in Florida. The last published numbers of AC and TC SLMS were collected in 2007-2008 as part of the *School Staffing Survey (SASS): Public School Library Media Center Data File*. According to the report, the total number of SLMS was 2,890; 1350 (46.7%) were AC and 1540 (53.3%) were TC. For the *a priori* power analysis of this proposed study, the desired confidence interval was set at 95% and the criterion for significance (alpha level) was set at 0.05. A sample proportion of 50% was used because this produces maximum possible variation. A medium effect size of 0.5 (Cohen, 1989) was sought since an effect of this magnitude could be anticipated in this field of research. Based on the last published numbers of the SLMS population, it was estimated that with a minimum sample of 280 AC SLMS and 309 TC SLMS, the study has a power of 80% to yield statistically significant results at a .05 level.

Data from the FL DOE Information and Accountability Services (2011) indicated

that there were a total of 2350 Florida SLMS. This was used to generate the total number of SLMS in the study. The researcher worked with FL DOE SLMS supervisor and district supervisors to generate the proportion of AC and TC SLMS. Once population and proportion data were generated, post-hoc analysis was done and is presented in Chapter Four.

There were multiple methods used to obtain maximum survey participation (Dillman, 2011). As in the pilot study, the researcher continued to work with the FL DOE Director of Media Specialists and district supervisors to engage members of the SLMS community. There was outreach to school district supervisors' and/or school media persons through emails, phone calls, mail, and meetings. The URL for the survey was distributed to these individuals (Bruskiewicz, 1996; Pace, 2007). Efforts were made to disseminate the survey to the FAME leadership via email and phone. FAME officers and committee chairs were asked to distribute the survey. Leaders of NCAC - The National Center for Alternative Certification (NCAC) and Florida's Alternative Certification Program were asked to distribute the survey. The individual names and contact information were generated by the researcher and stored in the survey email list.

The researcher distributed flyers at professional conferences and events such as FAME 2012. Finally, social media networks such as Linkedin, Facebook, and school library media specialist blogs were used to advertise the survey. When sample sizes were insufficient to make statistical inferences or groups of SLMS were underrepresented, the researcher contacted individual SLMS to directly ask that they complete the survey.

The survey was opened and distributed on November 4, 2012 and closed on January 7, 2013. There were a total of 628 respondents. Of these respondents, 596

completed Part I and 492 completed Part II.

Data Collection

Data was collected from SLMS using an online survey tool and submitted electronically. The informed consent indicated that no information would be shared with anyone including members of the school district. The researcher monitored the site and maintained a password to ensure confidentiality and data integrity. This password was not shared. The survey yielded demographic and job task analysis data with an emphasis on the *saliency* score derived from *time spent* ratings and *criticality* ratings.

The number of missing survey items was reduced by adding an indicator variable for missingness of categorical predicators (Gelman, 2010). The criteria for surveys to be included in data collection were that respondents complete the *method of certification* question and 90% of job task analysis responses. Surveys missing more than 10% job task rating data were handled with list wise deletion. In the case of surveys missing less than 10% of job task rating data, imputations were made using information from related observations. The frequency and number of omitted responses were measured.

At the end of the survey, SLMS were invited to participate in interviews. One of the selection criteria for participation in the interviews was that SLMS have at least three years' experience in their current position. The researcher selected two novice (3-10 years in profession) AC SLMS and two veteran (more than 10 years in profession) TC SLMS. A secondary selection criterion was based on identifying two elementary and two secondary SLMS. A purposeful sample of four SLMS (two AC and two TC) was selected for interviews. They reflect the average SLMS in this phenomenon (Merriam, 1998; Stake, 1995).

Participants had a choice of Skype and face-to-face interviews. All participants selected face-to-face interviews. The interviews were recorded using Garageband and a iPhone voice application. The researcher did all transcriptions using the tool, Express Scribe. In the reporting, pseudonyms were used to protect the confidentiality of participants.

Data Collection and Study Timeline

I. Timeline

a. Pilot Study: Completed January, 2011

b. Proposal Defense: October 18, 2012

c. eIRB: October 19, 2012

d. Web-based Survey Data Collection: November 4, 2012 – January 7, 2013

e. Web-based Survey Quantitative Data Analysis: December, 2012

f. First Round of Interviews with Transcription and Analysis: January, 2013

g. Second Round of Interviews with Transcription and Analysis: January-February, 2013

h. Qualitative Data Analysis: January-March, 2013

i. Chapter 4 – Presentation of Data: March, 2013

j. Chapter 5 – Analysis and Summary: March, 2013

k. First Draft of Dissertation: May, 2013

l. Dissertation Defense: June 20, 2013

m. Graduation: August 10, 2013

Data Analysis-Survey

Research question 1, "Are there significant differences in ratings on items related

to collaboration, leadership and technology between AC and TC SLMS?" was addressed using survey data. Responses were divided into AC and TC groups. Each group was treated separately and in the same manner in order to compare the two correspondingly. The thematic frame of collaboration, leadership and technology was used to organize the job tasks. Response ratings were converted into numerical values with *time spent* values ranged from zero for *not a part of job* to 5 for *much more time* for *criticality* from 1 for *unimportant* to 5 for *critical* (Pace, 2007). The means, variance and standard deviations of the relative *time spent* ratings were computed for each job task. Means and standard deviations of the *critically* ratings were computed for each job task. A composite variable summarizing the *saliency* of activities was calculated by multiplying the *criticality* rating by 2, and then adding the *time spent* rating, and dividing the result by 3 (Bruskiewicz et al., 1996; Pace, 2007; Puklas, 2000). *Saliency* means, and *saliency* standard deviation scores were generated for each of the thematic frames. SAS was used to run the statistical measures. Using these measurements, findings of AC SLMS were directly compared to findings of TC SLMS perceptions.

The Shapiro-Wilk test of normality was used to determine if the data was normally distributed. Even if the data was not normally distributed, the t-Test was selected as an appropriate tool to compare AC and TC mean *saliency* rates because they are robust to violations of the assumptions of population normality. These mean comparisons and t-scores with effect size were compared (AC vs. TC) for each thematic frame (collaboration, leadership, and technology). Effect sizes measured the standardized differences between two means of independent groups. Effect sizes also provided insight to the magnitude and direction of these differences between AC and TC

SLMS responses.

For research question 2, "Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?" frequencies for variables *familiarity with IP2* AC vs. TC, *attended in-services on IP2* and *attempts to implement IP2* AC vs. TC were reported. There were five different levels of the *familiarity with IP2* including the following: More than once – Extremely Familiar, One Time-Very Familiar, Scanned-Familiar, Hear of/ Never Read – Somewhat Familiar and Never Heard of – Not Familiar. The question on *attended in-services on IP2* had five possible responses. These responses are four or more, three, two, one and none. Similarly, the five possible responses for the prompt *attempts to implement IP2* were made continuous attempts, made several attempts, made some attempts, made one attempt and made no attempt. A chi-square test was used to identify deviations of observed from expected results and was used to compare the *method of certification, attended in-services on IP2* and *familiarity with IP2*. AC and TC SLMS were compared. The chi-square test established whether or not there was a significant relationship between variables. Cramer's v was the post-test that established the degree to which the variables are important and significant. Cramer's v was used to determine the strength or dependency between the *method of certification* and *IP2*. This determined whether or not the *method of certification* was impacted by experience or *familiarity with IP2*.

Diffusion of innovation was the descriptive framework for categorizing survey responses. This framework was implemented by aligning responses of the questions on *familiarity with IP2, attended in-services on IP2*, and *attempts to implement IP2*. For example, when a percentage of SLMS responded that they never heard of *IP2*, they were

categorized as a *laggard* in the knowledge stage of diffusion of the standards. On the other hand when a percentage of SLMS noted that they were extremely familiar with *IP2*, they were categorized as an innovator in the confirmation stage of the diffusion of the standards. The stage of diffusion of standards for the different certification methods (AC and TC) were compared. For example, results might indicate that AC SLMS were more likely to be in the decision phase than TC SLMS or vice versa.

Data Analysis-The Interviews and Blog

Interviews and a researcher reflective blog were analyzed to answer research question 3, "What are some recommendations for professional development for SLMS?" The transcriptions of the interviews and field notes were read, reread and coded around the themes of collaboration, leadership, and technology. The transcriptions were coded around unexpected or emergent themes. The data was interpreted by adding meaning to the prescribed and emergent themes. Writing the results was another opportunity to synthesize data. The researcher reflective blog was used as a triangulating measure to identify bias, inconsistencies or parallels throughout the interview process. The researcher reflective blog was also coded around the themes of collaboration, leadership and technology. Patterns, inconsistencies and emergent themes were highlighted and used to discuss analysis of the interviews. Since this study employed a mixed methodology, both quantitative and qualitative methods, there were different approaches to internal validity for the qualitative component of the study. In the qualitative component, threats to internal validity were reduced through transparency, triangulation, and member checks.

Table 9: Web-based Survey Research Questions Aligned to Proposed Instruments and Analysis

Research Question 1: Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?

Variables	**Analysis**	
Method of Certification	Frequency	*Method of Certification* AC vs. TC
Saliency Rates	Mean, Variance, Standard Deviation Independent t-Test (AC vs. TC) vs. Mean Saliency Holm's sequential Bonferroni adjustment (to reduce Type I errors)	Saliency Comparison for Collaboration Items AC. Vs. TC Means Comparisons and t Scores with Effect Size for Collaboration Saliency Comparison for Leadership Items AC. Vs. TC Means Comparisons and t Scores with Effect Size for Leadership Items Saliency Comparison for Technology Items AC. Vs. TC Means Comparisons and t Scores with Effect Size for Technology Items *Not a Part of the Job* Comparison for AC vs. TC

Research Question 2: Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?

Variables	Analysis	Tables
Familiarity with IP2	Frequency Chi-Square Tests: *Method of Certification* vs. *Familiarity with IP2;* *Method of Certification* vs. *Highest Degree Earned*; and, *Method of Certification* vs. *Age* *Method of Certification* vs. *Years as SLMS* Cramer's v	*Familiarity with IP2* AC vs. TC *Attended In-services on IP2* AC vs. TC *Attempts to Implement IP2* AC vs. TC

Limitations of the Study

A major limitation of this study is that Florida has not been officially collecting data about the method of certification for SMLS. Another limitation was that the sample was not reflective of the population as it relates to race and gender and cannot be considered representative of groups of people to whom results are generalized. Another limitation that might have emerged relates to self-reported data. Interpretations of interview responses might have been subject to researcher bias. Using member checks and a combination of interviews in order to minimize measurement bias lessened this impact. The interviewer avoided body language or tone that might have skewed a respondent's answer towards the interviewers' opinions.

Summary

In this chapter, the survey, interviews and the researcher reflective blog are described and explained. In the next chapter, the data is presented and in the final chapter data is analyzed. Suggestions for further research are delineated in Chapter 5.

Chapter Four: Results

Introduction

In this chapter, the sample population, survey results and case studies are presented to answer the research questions:

1. Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?
2. Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?
3. What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?

Results shared in this chapter provide background and context for the quantitative conclusions, cross-case analysis and reflective summary presented in Chapter 5.

Sample Population

There are a total of 67 school districts in Florida, of which, SLMS from 56 districts participated in the survey. There are a total of 2350 SLMS in Florida, of which, 628 SLMS responded to the survey giving an overall survey response rate of 27%. Of the 628 SLMS that responded to the survey, only 596 completed the survey giving a completed survey response rate of 25%. When participants who completed the survey were identified by *method of certification*, survey response rates were 25% and 26% respectively for AC and TC SLMS (Table 10). A chi square goodness of fit test ($p > 0.05$) indicated that the distribution of completed SLMS surveys were reflective

(χ^2 = 0.4035; DF = 2; p = 0.8173) of the actual population distribution of Florida's AC and TC SLMS (Table 10).

Table 10: Number of Completed Surveys

	TC	AC	NC	Total
Completed Surveys	377	202	17	596
Total Population	1457	822	70	2350

Of the attempted surveys, 596 and 492 SLMS respectively met the Part I (demographics, Figure 7A) and Part II (saliency, Figure 7B) completion requirements for the study (Table 11).

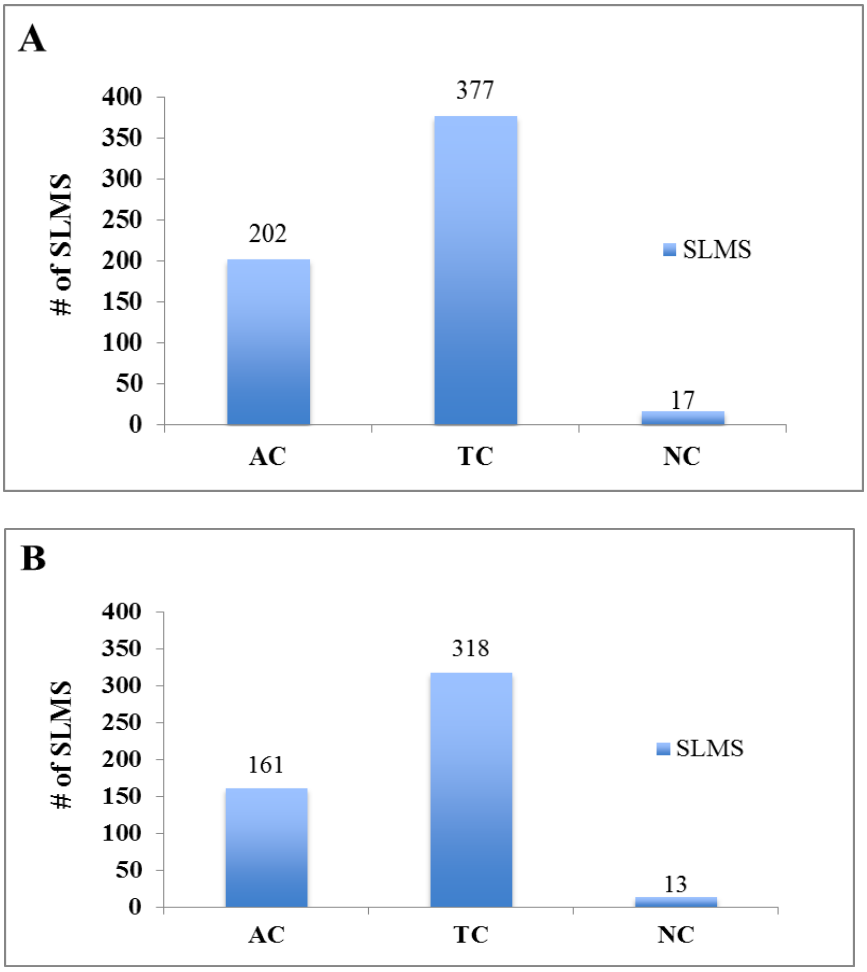


Figure 7 Total Number of SLMS by *Method of Certification*: A. Part I of the study, B. Part II of the study

Table 11**: Number of Completed Surveys by Part**

Survey	AC	TC	NC	Total
Part I (Demographics)	202	377	17	596
Part II (Saliency)	161	318	13	492

Not certified (NC) responses were not included in subsequent statistical analysis procedures because the research questions focused on SLMS who were certified (AC or TC). Therefore, the total number of completed surveys subsequently analyzed was 579 (596-17) and 479 (492-13), respectively, for Part I and Part II of this study. A post-hoc power analysis for AC and TC groups revealed that the sample sizes for SLMS had a power of 89.70% (AC) and 97.70% (TC) to truly detect a statistically significant difference at an alpha level of 0.05.

Comparisons between the total population of Florida SLMS and the SLMS sampled were made for gender and race. Of the SLMS sampled, 549 of the participants were female, 43 were male and 4 did not report (NR) gender (Table 12). A chi square goodness of fit test ($p < 0.05$) revealed that the sample was not reflective ($\chi^2 = 60.02$; DF = 1; $p = < 0.0001$) of the population of Florida SLMS as it related to gender (Table 12).

Table 12: Comparison by Gender: Sample to Population

Gender	2012 Sample	Percent	SLMS Population	Percent
Female	549	92%	1880	80%
Male	43	7%	470	20%
NR	4	1%	0	0%
Total	**596**	**100%**	**2350**	**100%**

The majority of survey participants ethnically identified themselves as non-Hispanic and racially identified themselves as white (Table 13). A chi square goodness of fit test ($p <$

0.05) revealed that the sample was not reflective (χ^2 = 375.83; DF = 4; p = < 0.0001) of the population of Florida SLMS as it related to race (Table 14).

Table 13: SLMS Sample by Gender and Race

Ethnic Category	Females	Males	NR	Total
Hispanic or Latino	27	0	0	27
Not Hispanic or Latino	476	32	3	511
Unknown or NR	46	11	1	58
Total of all Participants	**549**	**43**	**4**	**596**
Racial Categories				
American Indian / Alaskan Native	1	0	0	1
Asian	0	0	0	0
Black / African American	13	0	0	13
Native Hawaiian / Pacific Islander	0	0	0	0
White / Caucasian	462	32	3	497
More than one Race	0	0	0	0
Unknown or NR	46	11	1	58
Total (Racial/ Ethnic Categories)	**549**	**43**	**4**	**596**

Table 14: Comparison by Race: Sample to Population

Race	2012 Sample		Population	
	n	Percent	n	Percent
American Indian/Alaskan Native	1	0.2%	7	0.3%
Asian	0	0.0%	23	1.0%
Black or African American	13	2.2%	312	13.3%
Latino	27	4.5%	290	12.3%
Native Hawaiian/Pacific Islander	0	0.0%	1	0.0%
White	497	83.4%	1683	71.6%
Unknown or NR	58	9.7%	34	1.4%
Total	**596**	**100.0%**	**2350**	**100.0%**

Chi-square tests revealed significant relationships ($p < 0.05$) between *method of certification* (AC and TC) and *age* ($\chi^2 = 12.43$; DF = 5; $p = 0.03$), *highest degree earned* ($\chi^2 = 122.72$; DF = 5; $p = < 0.0001$), and *years as a SLMS* ($\chi^2 = 125.55$; DF = 8; $p = < 0.0001$). According to Cohen (1988), use of Cramer's V to determine the strength of association (small, medium, or large effect size) for significant relationships from chi-square statistics vary based on the degrees of freedom (DF). For variables with a DF of 5 or greater, a small, medium, and large effect size equals 0.05, 0.13, and 0.22 respectively (Cohen 1988). Thus, the strength of association between *method of certification* and *age*, *highest degree earned*, and *years as a SLMS* were medium (Cramer's V = 0.15), large (Cramer's V = 0.46), and large (Cramer's V =0.46), respectively. Cell chi-square values revealed that AC SLMS were more likely to be younger (Table 15), less educated (Table 16), and with fewer years of SLMS experience (Table 17) than TC SLMS.

Table 15: SLMS Sample by *Age*

	Age $\chi^2 = 12.43$; df = 5; p = 0.03; ES = 0.15						
Certification	**29**	**30-39**	**40-49**	**50-59**	**≥ 60**	**NR**	**Total**
AC							
Frequency	7	42	48	68	35	2	202
Expected	5.93	30	46.05	79.2	39.77	1.05	
Cell χ^2	0.19	4.8	0.08	1.58	0.57	0.87	
TC							
Frequency	10	44	84	159	79	1	377
Expected	11.07	56	85.95	147.8	74.23	1.95	
Cell χ^2	0.1	2.57	0.44	0.85	0.31	0.47	
Total	**17**	**86**	**132**	**227**	**114**	**3**	**579**

Table 16: SLMS Sample by Education

	Education $\chi^2 = 122.72$; df = 5; p = < 0.0001; ES = 0.46						
Certification	**AS**	**BA**	**MS**	**EdS**	**PhD**	**No Ans.**	**Total**
AC							
Frequency	1	95	98	6	0	2	202
Expected	0.35	44.31	147.92	7.68	1.05	0.7	
Cell χ^2	1.22	58	16.85	0.37	1.05	2.43	
TC							
Frequency	0	32	326	16	3	0	377
Expected	0.65	82.69	276.08	14.33	1.95	1.3	
Cell χ^2	0.65	31.08	9.01	0.2	0.56	1.3	
Total	**1**	**127**	**424**	**22**	**3**	**2**	**579**

Table 17: SLMS Sample by *Years as a SLMS*

	Years as a SLMS $\chi^2 = 125.55$; df = 8; p = <0.0001; ES = 0.46								
Certification	**0-5**	**6-10**	**11-15**	**16-20**	**21-25**	**35-30**	**>30**	**NR**	**Total**
AC									
Frequency	101	65	9	5	4	7	4	7	202
Expected	56.17	51.63	34.89	21.63	12.91	8.72	8.02	8.02	
Cell χ^2	35.78	3.46	19.21	12.77	6.15	0.34	2.02	0.13	
TC									
Frequency	60	83	91	57	33	18	19	16	377
Expected	104.83	96.37	65.11	40.37	24.09	16.28	14.98	14.98	
Cell χ^2	19.17	1.85	10.29	6.85	3.29	0.18	1.08	0.07	
Total	**161**	**148**	**100**	**62**	**37**	**25**	**23**	**23**	**579**

At the end of the survey, SLMS were invited to participate in follow-up interviews to answer the question "What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field? Two TC SLMS who were selected to participate in the interviews volunteered through the survey.

A district supervisor recommended one of the selected AC SLMS interview participants. The fourth interview participant, an AC SLMS, was recruited at a statewide SLMS conference. Both TC SLMS were veterans and both AC SLMS were mid-career professionals (Table 18).

Table 18: Interview Participant Profiles

Title	Pseudonym	Method of Certification	Level of School	Highest Degree Earned	Experience
The Teacher Librarian	Melody Alfred	TC	Elementary	MS (EdS)	Veteran
The Development Librarian	Nancy Grant	TC	High	M.Ed., NBTC	Veteran
The Professional Librarian	Lou Wright	AC	Elementary	MS (NBTC)	Mid-Career Professional
The Events Librarian	Mary Methods	AC	K-8	MS	Mid-Career Professional

Research Question 1: Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?

Guided by the thematic frames used in this study for job task analysis (collaboration, leadership and technology), AC and TC data were tested for normality. The Shapiro-Wilk test for normality ($p < 0.05$) revealed that AC data were not normally distributed for collaboration ($W = 0.9440$; $p = < 0.0001$), leadership ($W = 0.9739$; $p = 0.0039$), and technology ($W = 0.9768$; $p = 0.0083$). The Shapiro-Wilk test also revealed that TC data were not normally distributed for collaboration ($W = 0.9351$; $p = < 0.0001$), leadership ($W = 0.9397$; $p = < 0.0001$), and technology ($W = 0.9617$; $p = < 0.0001$). However, AC and TC data were analyzed using the parametric t-test procedure because such tests are robust to violations of the population normality assumptions and can

distinguish differences in mean distributions of AC and TC data. Results indicated no significant differences ($p<0.05$) between underlying saliency rating distributions of AC and TC SLMS for collaboration (Figure 8; Table 19), leadership (Figure 9; Table 19), and technology (Figure 10; Table 19). The negative t-values indicate that mean saliency rates for TC SLMS were greater than AC SLMS for all three themes (Table 19).

Table 19: Mean Saliency Comparisons by Themes: Collaboration, Leadership, and Technology

Theme	Job tasks (n)	AC mean ± SD	TC mean ± SD	t value	p value	ES
Collaboration	14	3.11 ± 0.85	3.22 ± 0.84	-1.38	0.17	-0.13
Leadership	13	2.91 ± 0.81	2.98 ± 0.86	-0.92	0.36	-0.09
Technology	10	3.09 ± 0.86	3.15 ± 0.92	-0.73	0.47	-0.07

*AC(n) = 161; TC(n)=318; and df = 477

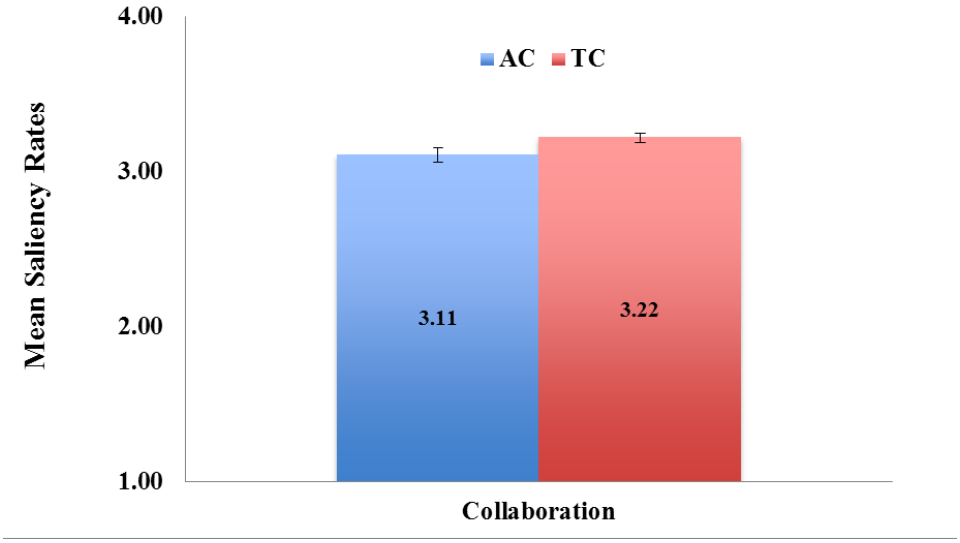


Figure 8 AC and TC Mean Saliency Rates for the job task analysis theme collaboration. Error bars = 95% confidence interval.

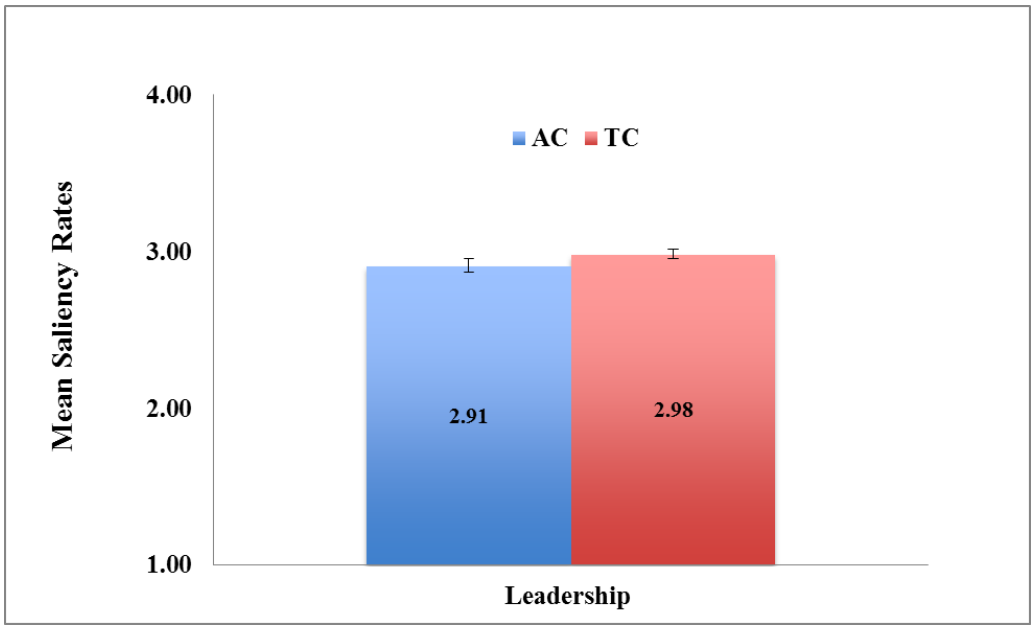


Figure 9 AC and TC SLMS Mean Saliency Rates for the job task analysis theme leadership. Error bars = 95% confidence intervals.

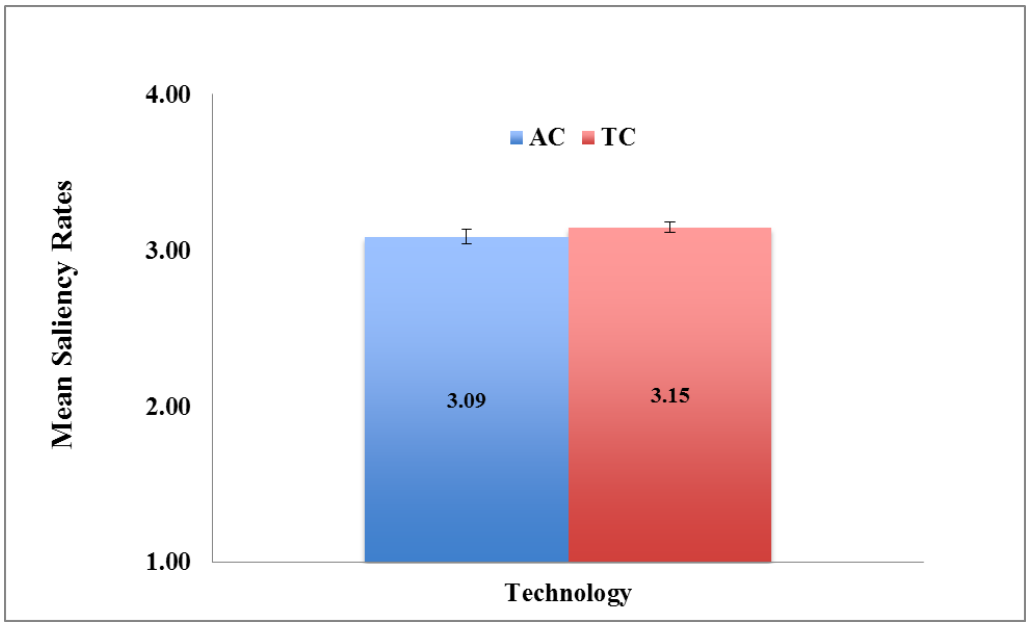


Figure 10 AC and TC SLMS Mean Saliency Rates for the job task analysis theme technology. Error bars = 95% confidence intervals.

Individual job tasks for each theme (collaboration, leadership, and technology) were also analyzed. Out of the 14 different job tasks for collaboration, only one job task had a significant difference in mean saliency rates between AC and TC SLMS (Table 20). The mean saliency rate for TC SLMS was significantly greater than that of AC SLMS for the job task, "*Assist students and/ or teachers with general references services (e.g., answer reference questions*" (Table 20). The magnitude of this significance was small with an effect size of 0.30 (Table 20).

Out of the 13 different job tasks for leadership, only one job task had a significant difference in mean saliency rates between AC and TC SLMS (Table 21). The mean saliency rate for TC SLMS was significantly greater than that of AC SLMS for the job task, "*Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes*" (Table 21). The magnitude of this significance was also small, with an effect size of 0.20 (Table 21). Lastly, there were no significant differences in mean saliency rates between AC and TC SLMS (Table 22) for the 10 different job tasks for technology.

In addition to asking SLMS the importance of specific job tasks to their work, SLMS had the option of identifying tasks that are *Not a Part of the Job*. The survey included a *time spent* segment that used a 5-point scale (1=much less time to 5=much more time) and if the task was not perceived as part of the job, the *time spent* was assigned a zero rating. While this component of the survey results does not explicitly answer research question 1, the *Not a Part of the Job* responses are relevant to SLMS perceptions of their job tasks. Specifically, these data highlight differences in AC and TC perceptions about job tasks that are least important. For collaboration, leadership, and

technology, *Not a Part of the Job* tasks were compared between AC and TC SLMS (Figures 11, 12 and 13). In the area of collaboration, only two of the 14 job tasks had a significant association between *method of certification* and job tasks (Table 23). For the job tasks, *"Participate in team teaching activities"* and "*Work cooperatively with public libraries to promote and encourage student and family use of resources"*, AC SLMS were more likely to think that these tasks were *not a part of the job* than TC SLMS (Table 23). The effect sizes for both of the significant associations were small (Table 23).

In the area of leadership, only one of the 13 job tasks had a significant association between *method of certification* and job tasks (Table 24). For the job task, *"Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes"*, AC SLMS were more likely to think that this task was *not a part of the job* than TC SLMS (Table 24). The effect size for the significant association was small (Table 24). In the area of technology, none of the 10 job tasks had significant associations between *method of certification* and job tasks (Table 25).

Table 20: Mean Saliency Comparisons between AC and TC SLMS for Collaboration Job Tasks

Theme	Job Tasks: Collaboration	AC (mean) ± (SD)	TC (mean) ± (SD)	df	t value	p value	ES
C1	Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	3.07 ± 1.40	3.21 ± 1.23	477	-1.12	0.26	-0.11
C2	Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).	3.51 ± 1.21	3.73 ± 1.18	477	-1.91	0.06	-0.19
C3	Introduce materials of special interest to class groups (e.g., via book talks or story telling activities).	3.21 ± 1.38	3.25 ± 1.24	477	-0.33	0.74	-0.03
C4	Conduct workshops/ in-service and other training for teachers - use of materials, equipment, technology, and new production techniques.	2.89 ± 1.48	3.03 ± 1.34	477	-1.05	0.29	-0.1
C5	Work with teachers to design innovative instructional approaches.	2.73 ± 1.54	2.81 ± 1.42	477	-0.58	0.57	-0.06
C6*	Participate in team teaching activities.	2.66 ± 2.20	2.92 ± 1.45	233	-1.35	0.18	-0.15
C7	Keep teachers informed concerning students' information skills.	2.51 ± 1.45	2.70 ± 1.40	477	-1.38	0.17	-0.13
C8	Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.	4.11 ± 1.02	4.04 ± 1.06	477	0.71	0.48	0.07
C9	Assist students and/ or teachers with general references services (e.g., answer reference questions).	3.11 ± 1.28	3.47 ± 1.14	477	-3.11	**0.002**	**-0.3**
C10	Assist students and/ or teachers in locating and selecting materials.	4.02 ± 1.18	4.05 ± 1.09	477	-0.27	0.79	-0.03
C11	Instruct teachers and students in media center policies and procedures.	3.30 ± 1.37	3.34 ± 1.21	477	-0.31	0.76	-0.03
C12	Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books	3.67 ± 1.25	3.61 ± 1.21	477	0.55	0.55	0.05
C13	Work cooperatively with district and/ or regional education and media center service units.	2.66 ± 1.31	2.64 ± 1.43	477	0.15	0.88	0.01
C14	Work cooperatively with public libraries to promote and encourage student and family use of resources.	2.04 ± 1.40	2.27 ± 1.22	477	-1.82	0.07	-0.18

Note: AC(n) = 161; TC(n)=318.. Red numbers indicate significance. Effect sizes for *t* test analysis are: small=.20, medium=.50, large=.80 (Cohen, 1992). Negative T (and ES) values indicated that the mean saliency rates of TC SLMS were greater than the mean saliency rates of AC SLMS. *The variances for this job task were not equal; therefore, the Satterthwaite procedure for unequal variances was used to determine the t values, p values, and df.

Table 21: Mean Saliency Comparisons between AC and TC SLMS for Leadership Job Tasks

Theme	Job Tasks: Leadership	AC (mean) ± (SD)	TC (mean) ± (SD)	df	t value	p value	ES
L1*	Inform faculty of new media center services, materials, and technology.	3.59 ± 1.03	3.50 ± 1.19	365	0.90	0.37	0.08
L2	Inform faculty and or students of copyright laws and interpret as necessary.	3.08 ± 1.28	3.20 ± 1.18	477	-1.01	0.31	-0.1
L3	Organize and/ or participate in technology teams/ technical committees.	2.50 ± 1.70	2.64 ± 1.54	477	-0.91	0.36	-0.09
L4	Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.	2.66 ± 1.61	2.55 ± 1.75	477	0.66	0.51	0.06
L5	Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.	2.75 ± 1.59	3.05 ± 1.40	477	-2.08	**0.04**	**-0.2**
L6	Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)	3.16 ± 1.35	3.14 ± 1.36	477	0.15	0.88	0.01
L7	Develop a strategic plan for the media center, including mission, goals and objectives.	3.47 ± 1.20	3.48 ± 1.24	477	-0.1	0.92	-0.01
L8	Organize and/ or facilitate a school library media advisory committee for short and long range planning.	2.25 ± 1.42	2.35 ± 1.41	477	-0.77	0.44	-0.07
L9	Interpret and apply national, regional, state and local standards and guidelines to library media programs.	3.40 ± 1.27	3.44 ± 1.24	477	-0.31	0.76	-0.03
L10	Plan and participate in meetings to present the functions and services of the media center to parent and community organizations.	2.40 ± 1.41	2.47 ± 1.29	477	-0.57	0.57	-0.05
L11	Lead or participate in School Improvement Teams.	2.65 ± 1.56	2.75 ± 1.51	477	-0.69	0.49	-0.07
L12	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).	2.81 ± 1.22	3.03 ± 1.19	477	-1.83	0.07	-0.18
L13	Upgrade relevant professional skills (e.g., attend college courses and/ or seminars).	3.10 ± 1.21	3.21 ± 1.19	477	-0.91	0.36	-0.09

Note: AC(n) = 161; TC(n)=318;. Red numbers indicate significance. Effect sizes for *t* test analysis are: small=.20, medium=.50, large=.80 (Cohen, 1992). Negative T (and ES) values indicated that the mean saliency rates of TC SLMS were greater than the mean saliency rates of AC SLMS. * The variances for this job task were not equal; therefore, the Satterthwaite procedure for unequal variances was used to determine the T values, p values, and degrees of freedom.

Table 22: Mean Saliency Comparisons between AC and TC SLMS for Technology Job Tasks

Theme	Job Tasks: Technology	AC (mean) ± (SD)	TC (mean) ± (SD)	df	t value	p value	ES
T1	Provide formal instruction in information skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.).	3.95 ± 1.2	3.93 ± 1.23	477	0.17	0.87	0.02
T2*	Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.).	3.66 ± 1.07	3.59 ± 1.33	389	0.59	0.56	0.05
T3	Instruct teachers concerning ways to incorporate technology into the classroom curricula.	3.03 ± 1.51	3.05 ± 1.42	477	-0.19	0.85	-0.02
T4	Assist teachers and students in the use of production techniques.	2.15 ± 1.63	2.42 ± 1.53	477	-1.8	0.07	-0.17
T5	Instruct students and/ or teachers in the use of the public access catalog system.	3.37 ± 1.17	3.4 ± 1.24	477	-0.31	0.76	-0.03
T6	Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.).	3.12 ± 1.39	3.13 ± 1.33	477	-0.12	0.9	-0.01
T7	Provide adaptive technologies for students with special needs.	1.96 ± 1.72	2.19 ± 1.59	477	-1.45	0.15	-0.14
T8*	Use online services to retrieve information (e.g., in doing research).	3.74 ± 1.01	3.77 ± 1.23	383	-0.24	0.81	-0.02
T9	Maintain and support a computer network for the media center.	2.39 ± 1.88	2.33 ± 1.9	477	0.32	0.75	0.03
T10*	Keep informed about new technologies.	3.48 ± 1.33	3.66 ± 1.13	280	-1.43	0.16	-0.15

Note: AC(n) = 161; TC(n)=318; Red numbers indicate significance. Effect sizes for *t* test analysis are: small=.20, medium=.50, large=.80 (Cohen, 1992). Negative T (and ES) values indicated that the mean saliency rates of TC SLMS were greater than the mean saliency rates of AC SLMS. *The variances for this job task were not equal; therefore, the Satterthwaite procedure for unequal variances was used to determine the T values, p values, and degrees of freedom.

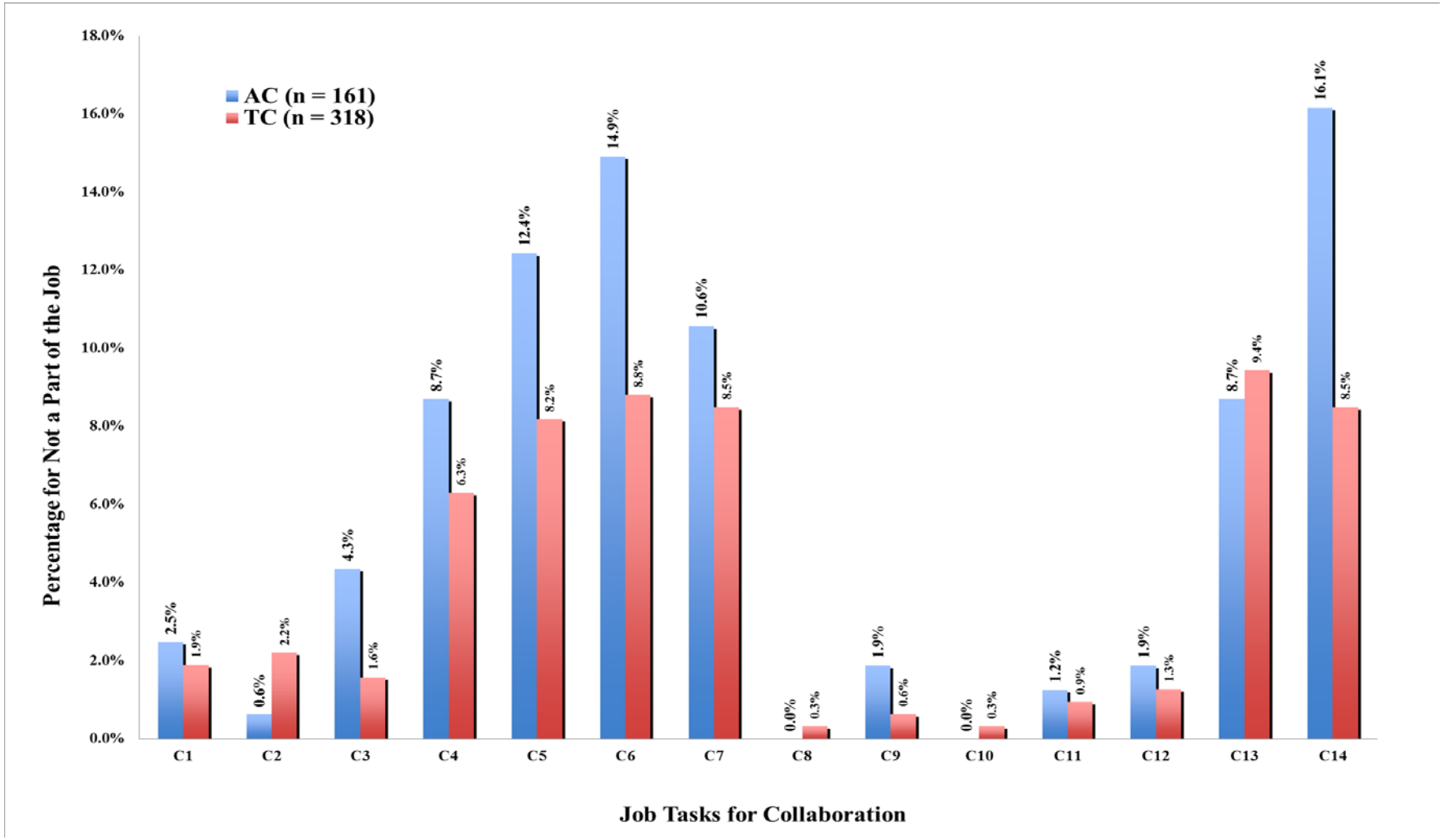


Figure 11 AC and TC SLMS Percentages of *Not a Part of the Job* for Collaboration

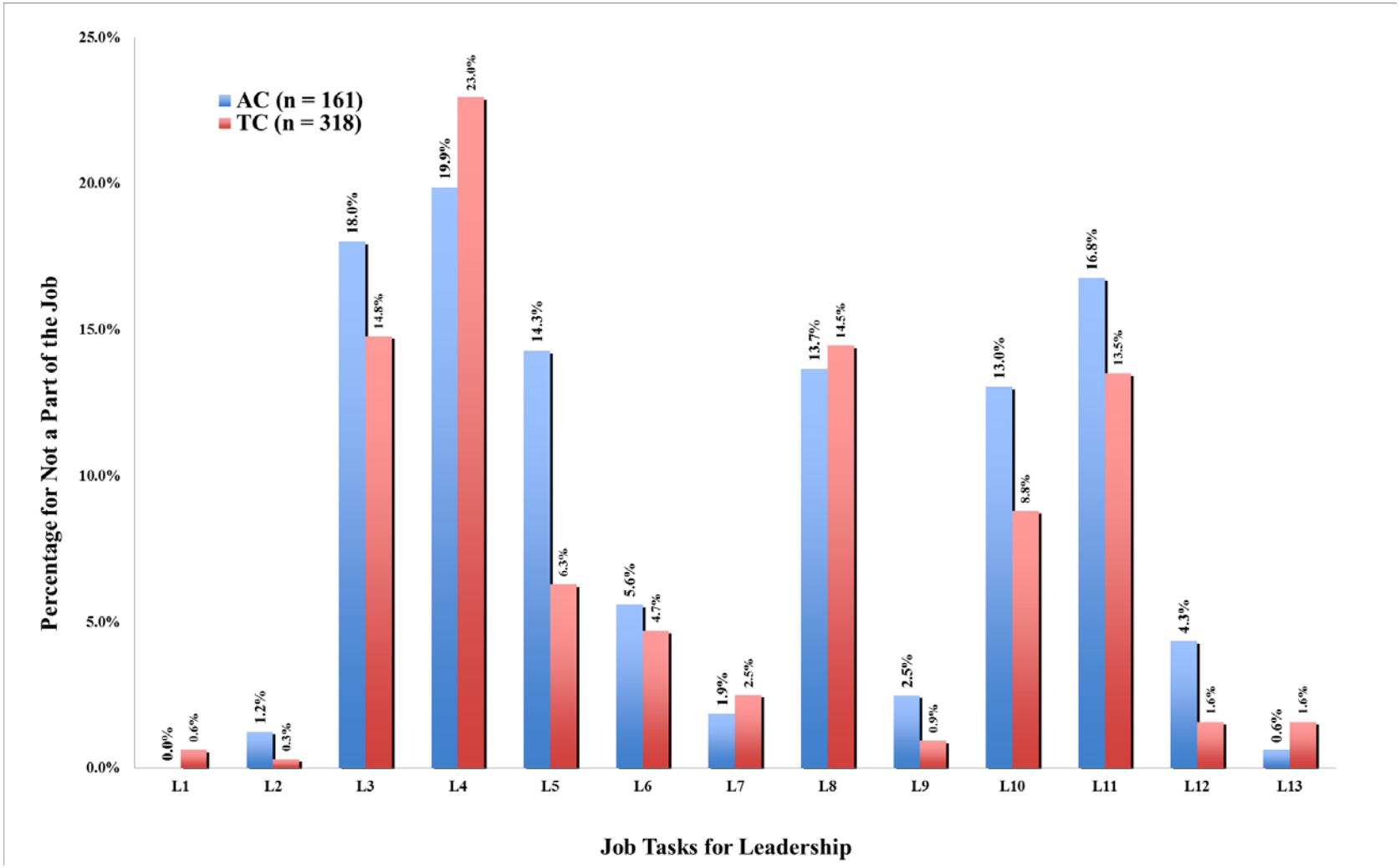


Figure 12 AC and TC SLMS Percentages of *Not a Part of the Job* for Leadership

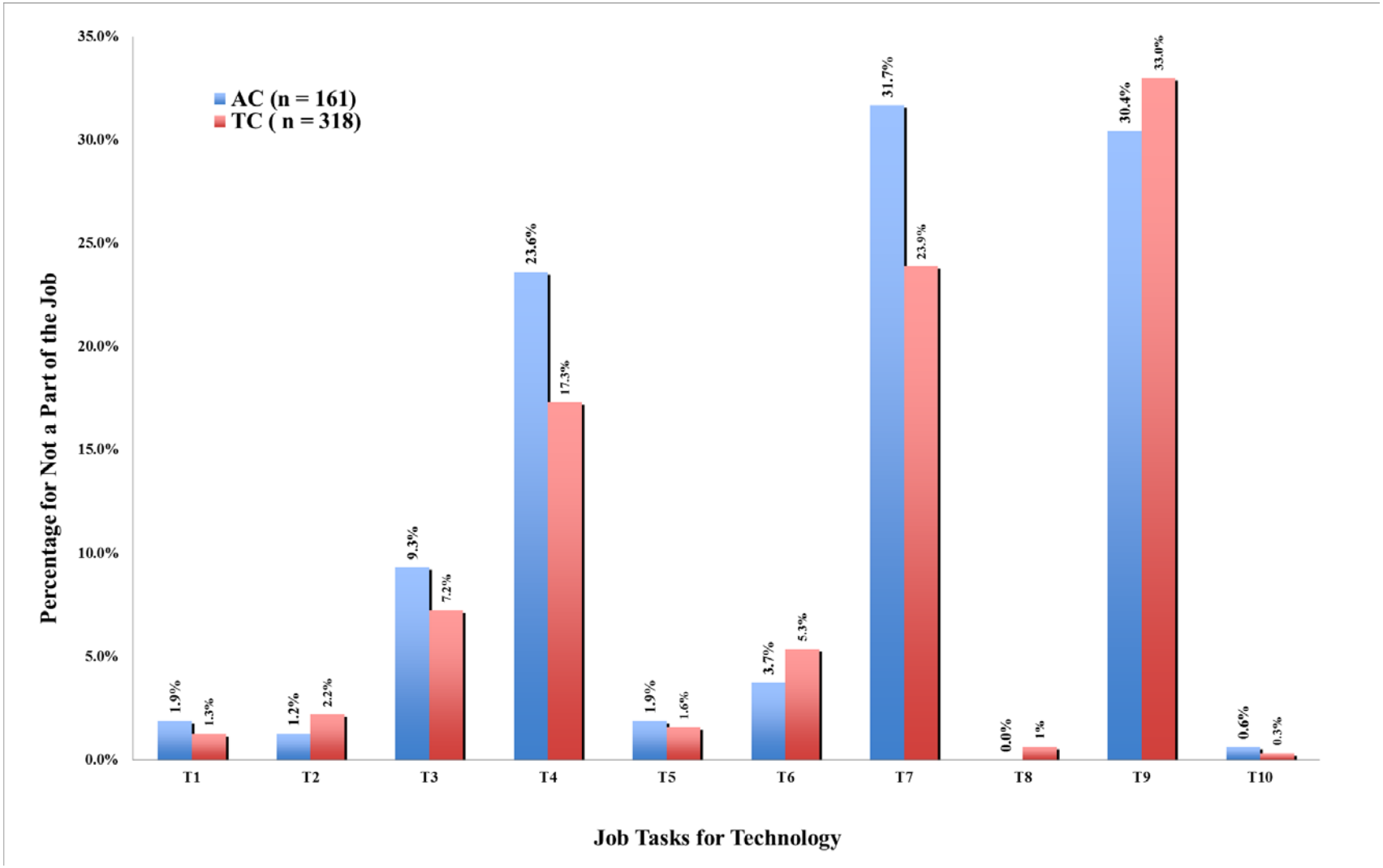


Figure 13 AC and TC SLMS Percentages of *Not a Part of the Job* for Technology

Table 23: Chi-Square Comparisons between AC and TC SLMS for *Not a Part of the Job* Tasks: Collaboration

Theme #	Job Tasks: Collaboration	χ^2 Value	p value	ES
C1	Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	0.19	0.67	0.02
C2	Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).	1.63	0.2	0.06
C3	Introduce materials of special interest to class groups (e.g., via book talks or story telling activities).	3.37	0.07	0.08
C4	Conduct workshops/ in-service and other training for teachers - use of materials, equipment, technology, and new production techniques.	0.94	0.33	0.04
C5	Work with teachers to design innovative instructional approaches.	2.22	0.14	0.07
C6	Participate in team teaching activities.	4.11	**0.04**	**0.09**
C7	Keep teachers informed concerning students' information skills.	0.55	0.46	0.03
C8	Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.	0.51	0.48	0.03
C9	Assist students and/ or teachers with general references services (e.g., answer reference questions).	1.58	0.21	0.06
C10	Assist students and/ or teachers in locating and selecting materials.	0.51	0.48	0.03
C11	Instruct teachers and students in media center policies and procedures.	0.09	0.76	0.01
C12	Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books	0.27	0.6	0.02
C13	Work cooperatively with district and/ or regional education and media center service units.	0.07	0.79	0.01
C14	Work cooperatively with public libraries to promote and encourage student and family use of resources.	6.37	**0.01**	**0.12**

Note: : AC(n) = 161; TC(n)=318; df = 1; Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

Table 24: Chi-Square Comparisons between AC and TC SLMS for *Not a Part of the Job* Tasks: Leadership

Theme	Job Tasks: Leadership	χ^2 Value	p value	ES
L1	Inform faculty of new media center services, materials, and technology.	1.02	0.31	0.05
L2	Inform faculty and or students of copyright laws and interpret as necessary.	1.48	0.22	0.06
L3	Organize and/ or participate in technology teams/ technical committees.	0.84	0.36	0.04
L4	Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.	0.59	0.44	0.04
L5	Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.	8.36	**0.00**	**0.13**
L6	Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)	0.17	0.68	0.02
L7	Develop a strategic plan for the media center, including mission, goals and objectives.	0.20	0.65	0.02
L8	Organize and/ or facilitate a school library media advisory committee for short and long range planning.	0.06	0.81	0.01
L9	Interpret and apply national, regional, state and local standards and guidelines to library media programs.	1.76	0.18	0.06
L10	Plan and participate in meetings to present the functions and services of the media center to parent and community organizations.	2.09	0.15	0.07
L11	Lead or participate in School Improvement Teams.	0.90	0.34	0.04
L12	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).	3.37	0.07	0.08
L13	Upgrade relevant professional skills (e.g., attend college courses and/ or seminars).	0.78	0.38	0.04

Note: AC(n) = 161; TC(n)=318; df = 1; Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

Table 25: Chi-Square Comparisons between AC and TC SLMS for *Not a Part of the Job* Tasks: Technology

Theme	Job Tasks: Technology	χ^2 Value	p value	ES
T1	Use online services to retrieve information (e.g., in doing research).	0.27	0.60	0.02
T2	Instruct students and/ or teachers in the use of the public access catalog system.	0.53	0.47	0.03
T3	Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.).	0.64	0.43	0.04
T4	Maintain and support a computer network for the media center.	2.72	0.10	0.08
T5	Provide adaptive technologies for students with special needs.	0.06	0.81	0.01
T6	Instruct teachers concerning ways to incorporate technology into the classroom curricula.	0.61	0.43	0.04
T7	Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.).	3.32	0.07	0.08
T8	Assist teachers and students in the use of production techniques.	1.02	0.31	0.05
T9	Keep informed about new technologies.	0.33	0.57	0.03
T10	Provide formal instruction in information skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.).	0.24	0.62	0.02

Note: AC(n) = 161; TC(n)=318; df = 1; Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

Research Question 2: Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?

Three variables were used to determine the level of *familiarity with IP2* for this study: the amount of times that *IP2* was read, the number of in-services attended on *IP2*, and the number of *attempts to implement IP2*. Chi-square tests revealed that there were significant relationships ($p < 0.05$) between *method of certification* (AC and TC) and *familiarity with IP2* ($\chi^2 = 96.96$; DF = 4; $p = < 0.0001$), *attended in-services on IP2* ($\chi^2 = 47.89$; DF = 4; $p = < 0.0001$), and *attempts to implement IP2* ($\chi^2 = 73.71$; DF = 4; $p = < 0.0001$). For variables with DF=4, a small, medium, and large effect size equals 0.05, 0.15, and 0.25 respectively (Cohen 1988). Cramer's V values revealed that the strength of association for significant relationships between *method of certification* and *familiarity with IP2, attended in-services on IP2,* and *attempts to implement IP2* were large (Cramer's V = 0.41), large (Cramer's V = 0.29), and large (Cramer's V = 0.36), respectively. Cell chi-square values revealed that AC SLMS were more likely to be less familiar with *IP2* (Table 26; Figure 14), attend less in-services on *IP2* (Table 27; Figure 15) and make less *attempts to implement IP2* (Table 28; Figure 16) than their TC counterparts.

Table 26: Chi-Square Comparisons between AC and TC SLMS for *Familiarity with IP2*

	Familiarity with IP2					
	$\chi^2 = 96.96$; df = 4; p = <0.0001; ES = 0.41					
Certification	**Not Familiar**	**Somewhat Familiar**	**Familiar**	**Very Familiar**	**Extremely Familiar**	**Total**
AC						
Frequency	45	41	45	32	31	194
Expected	22.084	20.725	42.469	46.207	62.515	
Cell χ^2	23.779	19.835	0.1508	4.368	15.887	
TC						
Frequency	20	20	80	104	153	377
Expected	42.916	40.275	82.531	89.793	121.49	
Cell χ^2	12.236	10.207	0.0776	2.2477	8.1754	
Total	**65**	**61**	**125**	**136**	**184**	**571**

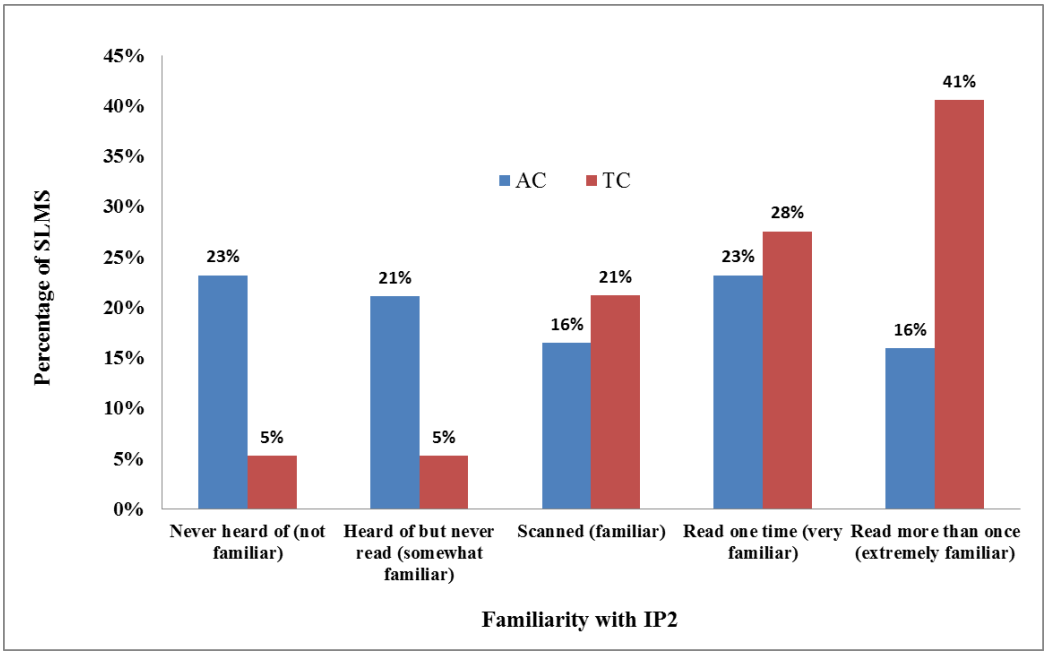


Figure 14 Percentage of SLMS *Familiarity with IP2*

Table 27: Chi-Square Comparisons between AC and TC SLMS for *Attended In-Service on IP2*

Certification	*Attended In-Services on IP2* $\chi^2 = 47.89$; df = 4; p = <0.0001; ES = 0.29					
	None	**One**	**Two**	**Three**	**≥ Four**	**Total**
AC						
Frequency	131	30	19	6	8	194
Expected	93.203	39.698	29.687	11.046	20.36	
Cell χ^2	15.328	2.369	3.8471	2.3053	8	
TC						
Frequency	139	85	67	26	51	368
Expected	176.8	75.302	56.313	20.954	38.633	
Cell χ^2	8.0806	1.2489	2.0281	1.2153	3.9585	
Total	**270**	**115**	**86**	**32**	**59**	**562**

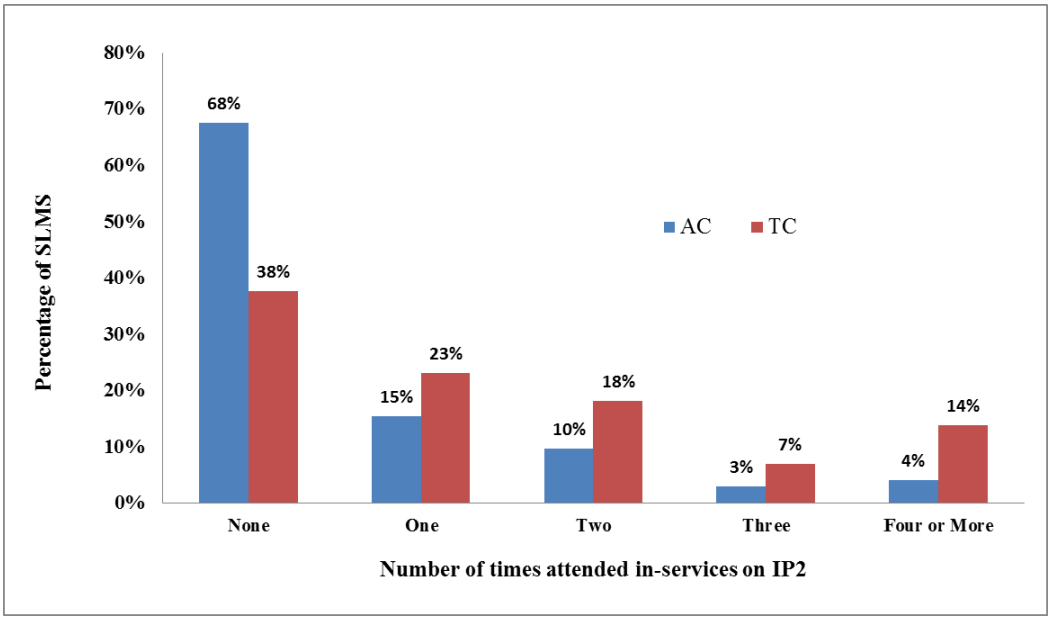


Figure 15 Percentage of SLMS that *Attended In-services on IP2*

Table 28: Chi-Square Comparisons between AC and TC SLMS for *Attempts to Implement IP2*

Certification	*Attempts to Implement IP2* $\chi 2 = 73.71$; df = 4; p = <0.0001; ES = 0.36					
	No Attempts	**One Attempts**	**Some Attempts**	**Several Attempts**	**Continuous Attempts**	**Total**
AC						
Frequency	90	7	46	17	31	191
Expected	50.911	4.7835	48.519	29.726	57.061	
Cell χ^2	30.013	1.027	0.1308	5.4483	11.903	
TC						
Frequency	59	7	96	70	136	368
Expected	98.089	9.2165	93.481	57.274	109.94	
Cell χ^2	15.577	0.533	0.0679	2.8278	6.1777	
Total	**149**	**14**	**142**	**87**	**167**	**559**

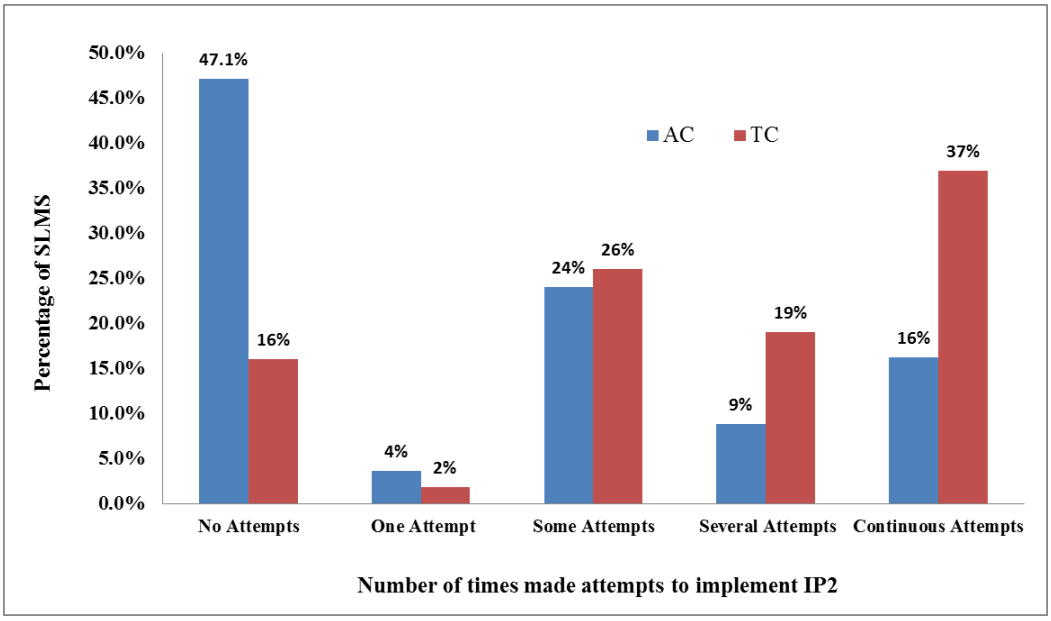


Figure 16 Percentage of SLMS *Attempts to Implement IP2*

Research Question 3: What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?

Summary of Case Studies

The qualitative data presented in this chapter includes interview transcripts, notes from direct observations, emails and member checks. Professional artifacts (websites related to the SLMS, evaluation tools, portfolios, data notebooks, schedules, brochures and professional development notes) also support findings. The researcher reflective blog data were used to create transparency and encourage critical self-reflection (Ortlipp, 2008). Categories that emerged in the first blog were: *AASL, APA, Blog, Chapter 1, Chapter 2, Chapter 3, Clayton County Public Schools, Data, Analysis, FAME, FAME 2009, Introduction, IRB, Leadership, Literature Review, Methods, Outreach, Pilot, Poem, Population, Proposal Defense, Research Questions, Saliency, Sample, Survey, Theory, Week 1, Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8*, and *Week 9*. Categories that emerged in the second blog were: *Collaboration, Interview Conclusions, Interview Participants, Interview Reflections, Leadership, SLR, Survey Participants*, and *Technology*. The first blog was maintained over a 5-year period (April, 2008 – June, 2012) versus the 7-month (December, 2012-June, 2013) duration of the second blog. The first blog was public while in contrast the second blog was open only to the committee and doctoral student assistant. Both blogs facilitated critical self-reflection, transparency and helped to triangulate interviews and observations.

The qualitative data in this study were used to extend job task analysis results, describe SLMS perceptions of collaboration, leadership and technology and answer the research question "What are some recommendations for professional development for

SLMS, based on perceptions of SLMS currently in the field?" Presented as a collective case study (Stake, 2003), each case has the following components:

- The professional route taken by each participant as illustrated through discussion of her inspiration, academic pathway and professional progress.
- Description of the physical layout and overall aesthetic of the library.
- The teaching and learning dynamic between the media specialist and members of the learning community.
- SLMS overall philosophy.
- Perceptions of collaboration, leadership and technology.
- Explicit recommendations for professional development for AC and TC SLMS.

The case studies provide the foundation for the cross case analysis in Chapter 5.

Melody Alfred: The Teacher Librarian

Ms. Melody Alfred's media center is on the second floor of a large elementary school campus, connected by indoor and outdoor walkways. At 8:05am every morning, student anchors hurry into the media center, pass the circulation desk and go directly to the television station for the morning news show, *Good AM Dolphin Elementary*. The first room of the television studio has studio lights and a high definition video camera mounted on a tripod that faces the anchor desk. A large glass visually connects the adjacent control room. The control room has an audio mixer, video switcher, computer for graphics and a radio frequency converter.

Ms. Alfred began her career working in a recording studio and uses this skill set in her position as media specialist. In one of our interviews she explained,

I used to work in a recording studio. We cut tape with razor blades and stuck it together. We only used 8 tracks. We went digital shortly after I left but back in the day you held the razor blade in your mouth and you moved the thing like this and you found the spot you wanted to cut out, cut it, moved it again and cut it. We made radio commercials and voice-overs.

This morning show was student operated. When Ms. Alfred's students took their spots behind the camera, in the control room and at the anchor station, they transformed into their professional roles. Anchors chose from one of the many dark blue blazers on the coat rack. Taking their seats and clipping on their microphones, anchors shared the news of the school. Special announcements and words of encouragement were streamed into each classroom. With the completion of another successful show, the morning news crew took off their identities of professionals and resumed their school day as 4th and 5th graders.

Ms. Alfred asserted that she is a teacher librarian and that the most important part of her work is "teaching children to be information literate." When she described the work of the librarian, she said,

Our main job is to organize information and make it accessible. That is the true job of a librarian. Well, teacher librarian then, we are charged with the job of making our children 21st Century learners. You have seen 21st Century standards being able to learn in different modalities like through online video and Skype. They need to understand the difference between a primary source and a secondary source and know how to evaluate that.

Ms. Alfred directly instructs all 37 classes in the school each week. Ms. Alfred said, "I teach a fixed schedule. I think I have 36 or 37 classes a week." To accommodate this number of students, classes are often combined. In our discussion, Ms. Alfred described her average day. She said,

> *I see them two at a time if they are pre-k, kindergarten, first or second. Really for little kids it is story time but tied in say I might read a fiction book and then tie it into a non-fiction book and then we hit Google Earth. This past week, for first graders I read John Lithcow, I am a Manatee. He sings so I can pop a CD and turn the pages or I could sing it for them. Then we go right to a non-fiction book, and then we have a chance for kids to stand up to say, "I saw a manatee. This is where I saw it." Bearing in mind, I might have 35 kids on the floor in front of me. Not anybody does that in our county anymore. I have got them, I have got them under control and they are paying attention. Then we move to this non-fiction book and then I pop up a video of a real manatee floating around at Blue Springs with a cute little song. You see him come up close, the whiskers. You know, they are zoomed and that's, that's the lesson for little kids. That is for first and second. There was a different one for kindergarten, a different one for Pre-k. So then, third, fourth and fifth come by themselves as a class. They have information skills like searching Kids Info Bits.*

A day I observed is similar to her description. Once the bell rang, two classes of first-grade students with books in hand walked with their teachers toward to library. Their first stop was the rug in front of the interactive white-board where they sat in a semi-circle on the floor. Ms. Alfred greeted students and teachers once again. She and

the class sang several songs. She invited students to participate in *Book-Talks*. Ms. Alfred described this process:

> *I do a process called Book Talking and before each class children who have read their book have the opportunity to talk about it and I keep track of it. If they have earned 10 points they get a free book from me.*

During the *Book Talk,* students described their reading experience. Those that were pre-literate note with whom they read the book. Students then briefly discussed the books' content and their overall evaluation of the text. Ms. Alfred asked follow-up questions, commended each reader and then carefully registered their *Book-Talk* in a data notebook. With this quantitative log, Ms. Alfred tracks circulation and confirms how many books each student has read over time. Ms. Alfred explained,

> *In some years I have had as many as 4000-5000 book talks a year. That is at least 8 books that I know have been read by a kid. Now other librarians say, "Oh, well I know I circulated 80,000 books." Well they don't have any way of knowing that those were read.*

After the *Book Talk*, students were invited to put their books in the book basket. Ms. Alfred sat at a small desk to the right of the interactive whiteboard. On the desk was a laptop and ELMO. Under the ELMO's light is the book projected on the screen. She chose a text that complimented the standards and emphasized the importance of honesty. Once she began reading, all eyes were focused on the screen watching the dramatic illustrations and each turn of the page. Periodically, she stopped to ask questions, reinforce vocabulary and describe the literary techniques used by the author. She varied

her voice for each character and used inflection to drive the plot. Similar to the students, she had the complete attention of the teachers. Ms. Alfred said,

> *Even some of the teachers say we like to come there. I have teachers say, "I really wish kids would applaud when I am teaching a story." I say "And that is the end and you go like this (stretches arms wide). That's all you have to do."*

At the conclusion of the mini-lesson, students were invited to the periodical section where they lie on the rug and read magazines. Sandwiched between the piano and magazines, students flip the pages of the selected text and point out illustrations to their neighbors. They were reminded to maintain low voices so that their classmates that were looking for a book to checkout could focus. Once the checkout process ended, the class formed a line by the door. They were escorted out by their teachers as a fourth grade class entered.

Fourth grade students took their seats at the desks arranged to facilitate collaborative work. On each desk were four laptops, one for each student. After the *Book Talks* and a poetry mini-lesson projected on the interactive whiteboard, Ms. Alfred instructed students to use a poetry based website to brainstorm and write poems. Students completed the exercise and shared their work. Similar to their younger counterparts, after the lesson students read magazines and checked out books.

Ms. Alfred briefly took lunch before an afternoon of teaching. The lessons are aligned, differentiated and leveled by grade. She described her approach to differentiation and said,

> *I am supposed to meet these standards as a librarian and I chose to teach a fixed schedule which means I am giving lessons maybe four different lessons a week, at*

different grade levels. Sometimes one lesson might suffice for three or four grade levels but I change the application of what I expect the kids to do. It may mean that the topic is the same for all of them and I use the same kind of multimedia or the same resource tools but the expectation is higher or the actual application is different.

After school Ms. Alfred went into her computer laboratory, the space where she fixed and treated computers in triage fashion. Ms. Alfred said, "I am supposed to manage all of the broken computers that I can. Reimage; make sure that the computers are upgraded so that they can use them to test. Talk about a job that is a big job." After a computer was successfully rehabilitated, reimaged or recycled, she put it on her cart to bring it to a classroom. During this time, she went from classroom to classroom and fixed the technology. Her goal was to be non-intrusive to the teaching day and to problem solve within the school rather than have teachers wait for district support. At the end of the day, Ms. Alfred prepared for the next day filled with instruction and technology.

Ms. Alfred's work goes beyond the school and includes collaboration with media specialists in her district. Ms. Alfred said,

I am past President of a district-wide leadership organization for librarians. We have six PLCs a month scattered around the county to help librarians improve their skills. It is more of a get together and we have a topic and there is always at least somebody who knows the answer to one part of this issue that we are dealing with.

When asked, "What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?", Ms. Alfred's responses

related to her experiences, leadership, collaboration and technology. Ms. Alfred discussed appropriate methodologies for professional development and elements that should be included and avoided.

Ms. Alfred's recommendations for professional development are grounded in her personal experiences as an opera singer pursuing a musicology, graduate student earning an MS and EDS and librarian in professional development courses. To emphasize this she said, "My first foray into library business, loved it. We ran the library because there really weren't other staff so the three of us, my cohort, we kept the library open, the music library." She recommended that that professional development for media specialists be cohort based and include practical experiences. She also recommended that the professional development include information literacy, an area that she believes is a priority for SLMS.

Leadership is a key component of Ms. Alfred's professional service. Ms. Alfred advocates for media specialists regularly at the district board meeting. She is on the Board of the statewide professional society and presents at their annual conferences. As it relates to professional development and leadership, Ms. Alfred noted that professional development should involve mentorship, peer to peer sharing and be led by SLMS. She described how important mentorship was for her when describing her route to becoming a media specialist. She said,

> *In undergrad, two teachers a professor that taught fine arts and one of the librarians on campus, without me really even knowing started researching and found graduate programs for me, and um, the history teacher presented it to me. She said "There is a university of a major city has a program for librarians and*

history and we think you would be good for that." . . . Two professors managed to get me into graduate school and it was a degree in musicology and library science, which no longer exists.

The importance of mentorship is a recurring theme. She said, "I think I learned more by talking to the librarians on campus to figure out how to find what I needed than I did in my coursework."

Ms. Alfred addressed the ideal role of technology in professional development for media specialists. She asserted that "maintaining and repairing computers, which is really part of our paradigm now, absolutely essential." She continued,

We need to learn every new paradigm that comes along, new technology that is available and take advantage of it but don't pass it on out to the practitioners until you know for sure that it is useful and that it is helpful.

According to Ms. Alfred, relevance is critical when featuring technology in professional development of media specialists. She maintained that the selected technology must be accessible and current. An example she shared was,

I took a website course on how to develop a website for my school in a southern state and then they changed to a different format. They went from one company to the next company. This is probably the biggest problem. You train on something and then they buy another product so then you get trained again.

She described several unsuccessful technology integrated professional development by stating how outdated many of the materials are. She said, "At the end of every course I say, Pay attention, we are reading articles that are 10 years old about technology."

What are effective methodologies for professional development? According to Ms. Alfred, SLMS professional development should include blended learning, praxis, differentiation and direct instruction. She explained,

> *I happen to think sit and get is the most efficient way to get information and here about possible things that can help you and it should be up to us as professionals to decide whether it is useful in our context and if we are having trouble implementing it, it should be up to us to go get help rather than to turn it into this money making thing.*

She asserted that professional development instructors must " . . . reflect, reevaluate, and pay attention to your context and understand and adjust." Relevance is a recurring theme. Ms. Alfred notes, "I am at a major state university now I can say probably, all except two courses have been unnecessary. That is sad to say. Or they are out of date or completely moribund."

In response to the differences in professional development needs for AC and TC SLMS, Ms. Alfred clarified the issue and redirected the research question. She asserted, "The problem is not that your alternately credentialed or traditionally credentialed. The problem is, the job is not fully described." Ms. Alfred suggested that the role of SLMS is not described or understood, especially by principals that are in the direct supervisory position. This lack of understanding by principals results in inconsistent and disconnected expectations and evaluation tools. Ms. Alfred restated that the primary role of SLMS is that of the teacher-librarians, teaching information literacy.

Nancy Grant: The Development Librarian

Ms. Grant asserted that she always knew she wanted to be a librarian. She said adamantly, "This is what I always wanted to do." She described her early exposure to libraries and said,

> *I was a library assistant in my school. So much so that, it was a very small school but if the librarian was not there, they closed it and if a teacher needed resources, they came and got me out of class to check it out. It's in my blood. I have known the Dewey Decimal backwards and forwards since I was in high school.*

Family members at home reinforced the library experiences that she had in high school. Ms. Grant said,

> *I was influenced a lot by my grandfather. He was a library trustee. He was self-educated, pretty much, he only had a sixth grade education but he believed in the importance of reading and was a tremendous gentleman in general.*

When managing students in the library, supervising student workers and instructing classes, Ms. Grant's leadership is quiet and firm. Her tone and volume of her voice requires listeners to lean in and pay attention. She credited her grandfather for this combination of gentility and strength. She said,

> *He could tell somebody off, never raise his voice, and never use anything close to profanity. In fact sometimes they may not even realize until later on that they have been chastised or whatever, until they stopped and thought about it. He believed in the command of the English language and the importance of reading.*

Ms. Grant asserted that her grandfather's leadership was her primary inspiration for becoming a librarian and generating funding for her library. She said, "He was largely influential in providing all the libraries in a large region of the state the funding for it

because he stayed there with the legislators and talked with them and coerced, I guess, and just influenced them." Similar to her grandfather, Ms. Grant's love of reading, library advocacy and grant writing has been her inspiration to create a 21st Century information science sanctuary.

The newly remodeled library was funded through a grant obtained by Ms. Grant in 2007. Consequently, the layout was the result of funding, consultation, student needs and Ms. Grant's experiences. Upon entrance of the library is circulation desk, a circular shaped area staffed by students. Students check books in and out with precision and a smile, occasionally going to the stacks to help someone find just the right book for their research project. The environment is collegial; during their downtime, student workers talk, laugh and joke with each other.

Within the media center, there are many different types of workspaces. There is a computer lab with a class set of computers. There are desk areas for large groups. Among the stacks lining there are nooks for small groups and individuals. One of the back corners of the library is a space created for read-alouds to children. High school students in pursuit of a career in early childhood have opportunities to read to the children in the on-site day care center. The children's space has children's books and teddy bears lining on the shelves. There is miniature theater seating that forms a U facing the reader's chair. Ms. Grant's desk is in the back on the left. It is covered by books, papers, a small Zen garden, and framed pictures of smiling grandchildren. Among the books on her desk is a copy of *Information Power 2*. When she talked about the importance of *Information Power 2*, she said, "It validates what I am doing. In fact, I think my brochure has that in there as a way of saying that this is my philosophy, but it is

not just me, this is recognized nation-wide." Behind Ms. Grant's desk is a space for the hardware in various stages of being updated, reimaged or fixed. To the left wall of the media center are small offices used by instructional specialists and small teacher groups.

The U-shaped leather couches are central to the room and the curriculum. Teachers bring whole groups to this U-shaped area for instruction. Ms. Grant often does *Book Shares* in this area when instructing classes. During the *Book Shares*, each student briefly discusses a book round-robin style. The *Book Shares* have had tremendous success and have increased the circulation of the books described. The *Book Shares* activity illustrates Ms. Grant's overall philosophy and mission. She said, "If I can foster the love of learning and the love of reading with the kids then I would be very happy with that and for them to understand how to find information." In order to meet this goal, Ms. Grant integrates collaboration, leadership and technology into her daily practice.

Ms. Grant uses her expertise in technology to collaborate with the teachers in her school. She described how she used Audacity to create a successful collaborative experience with foreign language teachers and meaningful learning activity for students. She began by identifying the instructional needs of teachers and students and then infusing the appropriate standards and technology. She described this process:

> *This teacher needed for her students to practice their speaking of the language and also planning ahead of time for the AP exam in April. I said, "Audacity." I helped her to create a program for the kids using Audacity and pictures. They had to have a project that they spoke in the language that they were studying, be it Spanish or French. I showed teachers and students how to do it but it was just incorporating what I knew students needed to be able to do. They need to know*

how to use technology in the classroom but in real terms of how they need to do it. So very quickly, I could do the lesson in 5-10 minutes and that gave them a lot of time to practice with it. I showed them how to get to the pictures free or those that are copyright free or they have permission to use. I try to incorporate those standards. Just kind of slip them in under the door. Again, I guess it goes back to how I was talking about learning language as a kid, that you just do it naturally. Well trying to work the standards in in a natural way. To show by example, leading by example.

Ms. Grant described how successful technology integration with one teacher encourages other teachers to collaborate with her. When describing collaboration she said,

It is difficult. That is one of the challenges that we have. You are not going to get all of the teachers. There are going to be a lot that will never buy into it. Once one teacher learns how to do something and someone says, "Well, gee, you should see what Nancy does with the kids." So now we have been getting all of the classes in with the language, doing the same thing. I just start with the teachers that I know I can get to and hoping by word of mouth it gets out. They will say, "Oh so and so is doing such and such, so then I work with them."

Ms. Grant creates buy-in by meeting the curricular goals of teachers and students. She integrates technology and infuses information science skills outlined in the NETS.

Ms. Grant is committed to collaboration, leadership and technology in her district. We met at a mini-conference organized by a media specialist in the district:

That particular one allows us to collaborate and talk with one another and say "Have you thought about doing it this way?" and "This is how I've used it" and that to me is the best way of getting the collaborating out. We do a lot of that in Forest County, you know with the media specialists, as that drive-in was an example of. Sharing what we do. We also know that at any given time we can just we can pick up the phone up, we can get online and just ask somebody. It might just be a generic question. "Hey, does somebody know how to do this?" or "My principal gave me an assignment to do this." or "I had a teacher ask about such and such a project. Has anybody already done something?" You know, we don't like to reinvent the wheel. We like to go with the flow and what will happen is that once they get the responses, the person that gets the responses shares those responses out. So again it is a win-win.

As the senior media specialist in the room, Ms. Grant shared her experiences and professional development opportunities. She encouraged and offered emotional support. She listened and affirmed the ideas of her colleagues. She led with humility and kindness.

Ms. Grant is "in with several professional organizations" as both an active participant and leader. This is illustrated in her description of co-creating the NETS. She explained,

Going to statewide conferences, I was one of the ones that were invited to be on the groundbreaking thing to me. I just thought it just made so much sense, that you have got . . . you know we know technology but what about the people in all the different areas? You have got your Math teachers; you have got your Social

Studies teachers, your Science and Language Arts. Each one of those had their own technology standards. So ISTE decided, let's get everybody together and come up with one acceptable standard that we all can use. I thought it was fantastic. I liked what we did. They put is in this big banquet hall and they had us at tables by what our interest level was, like maybe math teachers are here, maybe high school math teachers, depending on how many they had. They tried to keep the levels together. But then as a consensus, we talked about it and argued and compromised. But again, we were one among the nation that was doing this. When they did the secondary standards, they came back around again. I thought "Wow, that's interesting because technology had changed from the time, just a few years when we had started on that." Yeah, I think that is a good way of doing it. Get your stakeholders involved.

In addition to an opinion of effective strategies for developing standards, Ms. Grant discussed recommendations for professional development methods.

According to Ms. Grant, successful professional development for media specialists is hands-on, relevant, and accessible, differentiated, individualized, and scaffolded. When emphasizing the importance of hands-on instruction (especially with technology), she said,

A lot of hands on . . . I like examples of how other people have used it because that will set me off. I like it when I can take a laptop in and be able to add something to my knowledge, maybe it is a website that I did not know about it or a new software that is available say online that I did not know or maybe it is just a different way of using it that to me is most beneficial. I am much happier when

can get in and I can use whatever it is. If it is literature, then let me see some examples of it. If it is software, let me use it. Let me think about ways that I can incorporate it with my students because that is what I am going to do anyway. I am thinking the whole time somebody is presenting is like "Wow, how can I use this with my kids?" The more that we have hands on, the better.

In contrast, Ms. Grant described unsuccessful professional development when the content is not accessible or relevant:

I have been to several instances where it is like "Hey this is great. This is what I did." It is not something that can be sharable. It is just like "I have all this money and I got the technology. Isn't that great for us?" Well, it is great for you but it is not helping anybody else. Something that would have been helpful is if they had told me how I could have gone about getting the same stuff or if you are using it, how are you using it and can that impact me and my kids?

Ms. Grant insisted that effective professional development is self-selected, differentiated and scaffolded. She said,

In some cases, but in general it is on a (I guess) need to know basis, or not need to know but whenever we have training, you have a situation that if I am going to take technology training, I don't want you to tell me how to turn the machine on. I want to be at a higher level. I want to use the technology. I know how to basically do stuff but on the other hand maybe you don't know how to turn it on. So you need to start at the very beginning and this same thing can happen if you have been, whatever your background is. It may be that you just don't know how

to use this particular resource. So as far as the training, it is take you at the level where you are.

One of her favorite professional development resources is an online module based instruction. She noted,

It takes me where I am (in the online module) and lets me move forward. I liked it because of the variety that I needed but not only could I take it live, I could go back later on and review it and pick up on something that I have missed.

When asked about the differences between professional development for AC and TC SLMS, Ms. Grant responded,

Well, I mean you can't just automatically assume that because someone is alternatively certified that they don't know how to do certain things. Maybe they do. I don't really see a whole lot a difference because I don't know that many that are alternatively certified. Sometimes you can't tell by the way they (alternatively certified SLMS) act. Some people are more intuitive and they pick up things quickly. Maybe they came from another field. Maybe they have similar experiences too. Again, say like I had in high school. I had done a whole lot in the library. Well, I picked up a lot. Maybe they did too but they just went a different path and then decided they wanted to come back and get into the library.

In her summary Ms. Grant notes that as a SLMS,

You need to be well rounded in all of it. You need to be able to know the literature, have the love of reading but you need to use the electronic resources and be familiar with those and comfortable with using it and how to incorporate it.

Mary Methods: The Events Librarian

Ms. Method's journey to the librarianship began with a love for children. She explained her inspiration to become a school library media specialist:

> *I just absolutely love kids. Even before working in education, I was a children's minister in a church, preschool music director. I did ten years where I was a stay-at-home mom but I didn't stay home very much. I was very busy doing many things; lots of little part time jobs and some of those part time jobs there were always . . . everything I have always done involved kids and so . . . the literacy aspect of it and I am an event planner and that part, there are so much fun events that you can do.*

In our discussion, Ms. Methods' described her academic pathway and professional route. Her close professional relationship with the media specialist at her school led to a job sharing experience:

> *Nine years ago I was teaching character education at a local middle school and I have always loved the idea of being a media specialist but I actually made the assumption that you had to have your masters. I didn't know anything about an (alternative) certification route. I was teaching character education over at a middle school in another part of the county and that year the media specialist, whom I just adored, Jennifer Stars, had a baby and wanted to come back part time. The school that we worked at had what is called a block schedule, which means that every other day there was a different set of classes, which lends itself to a shared job quite easily. She, at that time, told me about the certification route. So the principal thought that was a good idea too.*

Ms. Methods' route began as alternatively certified and then she later completed a master's in school library science. Inspired by a shared work position and the support of her principal, Ms. Methods took the certification exam, found a permanent position and began a master's program.

> *I passed the certification (test). To be quite honest, I thought it was quite easy. I am amazed that some people found it so hard but whatever, that was me. So we job shared that first year. I absolutely loved that school. So I found a nearby K-8 school, so actually this is my second K-8 where I could keep that job, keep the media specialist job at that point. The (MIT Director) talked to us about the whole master's degree but you know at that point money wasn't there but my second year at Palago, so this would have been my third year as a certified media specialist, I started my master's program at a major university.*

Ms. Methods noted the motivating factors and benefits of earning a master's in library science. She also explained why she feels she would be equally successful without a master's degree in library science:

> *I thought that I did a great job even before I had the master's. There are some things that I learned through getting that. But one of my best friends over at Waterside, the woman that I job shared with, she has not taken any mater's level classes and services her library amazing. Like I said to you earlier, leadership is something that you cannot make somebody have. If you have the right personality, person coming into that job they are going to find some way to be successful in there. I think getting your masters is helpful in some aspects. For me, it just allowed me to read a volume of literature where I was reading books*

but not to the push that you have to take for a class. You know when you have to do multicultural or children's literature. So it pushed me to read things that I would not have necessarily read instead of books that just appeal to me, I had to read across the board. Like reading a transitional Judy B Jones, not something I really want to do but I did it for the class and I am glad that I did. And some of the research components were really good but ultimately, I got my master's so that I could get a pay raise to be quite frank and my husband is a Methodist minister so if I need to move around the state, I have that degree that pushes me to get a level to get a job or if at that point there is not a school job I could work in the public school system. I got my master's. If I knew I was going to be in this county and I did not have to worry about finances, I may not have done it.

Upon reflection on her route, she described the protocol for professionals in her district considering a SLMS position. She said,

I actually like what Mike is doing now. Our MIT Director currently, if you would like to be a media specialist, you have to have been minimally state certified. That has to happen even before I believe he will even entertain conversations with you. You go through an interview process with him and you have to agree to be working on your masters or certification. There is like a secondary certification level where you start working on the masters. You have to agree that you are working towards that, started within an x amount of years and ended within an x amount of years. I am not sure because it did not apply to me and I was doing it. Then there is follow-up from his perspective that you are doing that.

The MIT director considers Ms. Methods an exemplary media specialist. He recommended that I visit Ms. Method's media center.

During my observation of an average day at Ms. Method's media center, there were middle school students working in front and behind the circulation desk. Behind the circulation desk, students checked out books. In front of the circulation desk, students prepared boxes of books to be delivered to a classroom. There were also students working on an assignment at the café tables located to the left of the circulation desk. Two teachers met at an adjacent booth. To the right of the circulation desk is a projector surrounded by wooden tables and chairs. This area is used for class instruction, school meetings, professional development and conference space. The back of the media center is lined with offices, including Ms. Method's office. In between these areas are stacks of books. On top of the bookshelves are books and teddy bears on display.

On one of the days I visited, Ms. Method's darted in and out of all the areas of the library, perpetually multi-tasking, giving instruction, answering questions and counseling teachers. Whether they were new teachers or new to the school, teachers were looking to her for grounding and orientation. Sometimes it was personal question, others it is the formulaic "What form am I going to use?" Sometimes Ms. Methods offered a teaching strategy, a learning strategy, or a coping strategy. On a teacher workday, I watched as a first year teacher came into the library overwhelmed with her new schedule. Ms. Methods calmly explained how flexible groups would enable the teacher to meet the needs of a larger class size. She concluded with a pep talk, reminding the teacher that she would succeed and that she could always come to the media center for support.

When Ms. Methods described her interaction with students and teachers she said,

Yes, it's almost like we are the hospitality industry. I am the concierge. I have also heard it referred to that you are the cruise director. Sometimes I feel like I am the bartender too.

Her overall philosophy is that "The priority is helping students and teachers, making sure that the staff is where they need to be and the students are where they need to be." This philosophy is infused into her practice and informs her perceptions of collaboration and leadership.

Collaboration with teachers is important to Ms. Methods. She explained that she prioritizes the standards used by teachers and then considers the standards used by SLMS. She said,

First I have to meet the teachers' needs because I have to help the teachers. They are not going to meet with me if it does not help them in getting their stuff done first. Then I will see where that correlates with my Information Power but it all has to be on how are the teachers going to want my help. You have to hit them where they are going to want it. If I talk about my information standards, they will look at me and go "Yeah, whatever." Why do I want to spend my time doing that?

Relevant content is critical to Ms. Method's success with collaborating with other educators. She noted that the importance of high stakes testing could be a barrier to collaboration. When describing FCAT she said,

It impacts the collaboration and trying to get them, the teachers, to come in and use the library. It has been very difficult with the FCAT culture because it is kind of the backburner of collaboration until the 4th quarter things. So, nobody really

wants . . . they don't see sometimes that that component is useful for them with the FCAT testing. So sometimes it is difficult to do some portions of collaboration and research. I try to pop in and help.

Ms. Methods described her successful collaboration with principals:

I mean to hear them speak and to try to figure out how to do that, trying to get our principals on board which I have always been very blessed. I cannot say that I have ever had a bad principal. I have just had fabulous principals that I have worked with and I don't know if it's me or them or a combination of (things) but it has been easy for me. It is hard to know what other people need because I don't. I am able to easily go feel like I can go talk to principals. I will go "Hi, I would really like to see this happen . . . and blah blah blah . . ." and usually the response is like "OK". So, I think sometimes the principals are unaware of the possibilities for the job; sometimes it might be the presentation of the media specialist to the principal.

Ms. Methods has administrative duties. She noted that her flexible schedule is one of the contributing factors to her success with collaborating with teachers and doing administrative tasks in the school. She said,

You have to a little bit of a flexible schedule. That is a practical thing. If you, you probably have heard this. So many media specialists teach on the block. Collaboration can't come if the schedule is so busy that there is no room for that and if they are treated as a block teacher, or specialist.

She explained that while she has flexibility, many of her colleagues in the district do not have flexible schedules. She said, "We have not had a lot on collaboration PDs mainly because so many of our other media specialists have to teach on the block."

The flexibility in her schedule enables Ms. Methods to perform other roles that support the school. She described these tasks as collaborative and part of being a team player. She said,

> *We do a lot of things that are not necessarily under the purview of the official media specialist like I have to be in charge of textbooks. That is a job that I would love to hand off. I don't think it is necessarily a media specialist's job but when you are a team player, it is part of the team player world so you do it.*

In addition to collaborating with teachers and administrators at her school, Ms. Methods also collaborates with instructional coaches in her school. She said,

> *I am very blessed with that. We do a lot of collaboration. The coaches we all work together and support each other, what we have got to get done so it is a great environment here.*

Collaboration is a critical component of Ms. Methods' leadership style. She said leadership requires strong people skills:

> *Ultimately I think people skills because you are really trying to keep all sorts of various people happy . . . It's one of those things it's hard to teach. You can't. Like I have learned with leadership, you can't teach leadership. You can teach management skills but the actual how to work with people and how to . . . because in the school library, there is so much that is requested of you from teachers, from students, from principals. While you are helping students, you have to help, help*

with the testing situation but advocate for the library at the same time. Yet you don't want to tick anybody off so you . . . It really, having those management skills, how to work with people I think is tremendously important because it is not simply working with children in the library. The practical point is that you actually have to be given the time. I am very lucky here. I have a fully flexible schedule so I can take a lot of those leadership roles because the school allows me to do that.

In our conversation, Ms. Methods shared explicit recommendations for how to teach AC and TC SLMS professional development. First, Ms. Methods affirmed the importance of relevant professional development, especially with technology. She stated,

Some of my most unsuccessful training has been when it has been on technology that I did not have or that I was not using a lot. Because if it is on technology that I do not use much then it is wasted, I will not remember how to use it. Like I had training on SMART training, when I was at Palago but we didn't have any access to SMARTboards. Then, when I came here and every class had access to SMARTboards, I had to redo the training because I didn't remember what I learned the year before because I never had it.

She noted that successful training is SLMS led, provides mentoring and is differentiated. Ms. Methods stated that out of necessity, SLMS now lead the planning and implementation of professional development:

Now what has actually had to happen is that we, the librarians, are in charge of our own PD now because Mike is getting pulled in so many different places. We have a PD committee and we all take different turns. I am doing next month. I

don't remember what she wanted me to do. We just had one on how to use Destiny and we just had a Common Core. I don't know how much they have been talking with you over it over at the university. With Common Core hitting, you know we as librarians are like what impact is that going to make for us. How are we going to order books? What does this mean? So we had a PD just on Common Core and how that affects the library, which I thought was a great PD to have.

Ms. Methods described the professional development as an effective sharing time for SLMS. She stated, "It is great to have an idea of sharing time where you can share what fun things you are doing." During this SLMS led professional development SLMS discussed the following topics:

What kinds of things do we have to do for the county? What kinds of things do we have to do for the school? The training on systems and . . . How are you running you schedules? I think there is a time for media specialists to gather together and say, "Ok this what we are going to do and this is what we are going to do and this is what works." I fully will grab an idea from someone else and then tweak it for my school.

These formal and informal gatherings provide opportunities for mentorship, Ms. Methods stressed the importance of mentorship embedded in professional development. She said, "I think mentoring has got to be in the program to link people up. You know that you have got somebody to call, somebody to work with."

In addition to SLMS professional development taught by SLMS and involved mentoring, Ms. Methods stated that successful training is differentiated. She also

described experiences in which she did not have to take courses that covered content with which she had mastery. For example, she said,

> *We used to have a great training. We used to have a new media specialist (orientation) and I think if you had been a master's some of those classes you got opted out of so to speak because they are covered in there but the flip side of those the flip side is that somebody that has come from within the school, doesn't need to go over school expectations or somebody who has come through the education ranks. There were certain subjects that if you had, if you were master certified you got to skip. Like the things about MUSTY that when we were talking about weeding, the whole weeding one, they got to skip that one because she knew that they got that column in their degree program. So overall, if it was something that the county needed to address, I just didn't need to be a part of it because everything they knew I could have led the class in.*

Ms. Methods asserted that professional development might be differentiated based on the expertise or training of the SLMS; she also shared examples of SLMS that are helpful for all SLMS. For example, all SLMS need professional development on school protocols, county expectations, new technologies, and computer/web based systems. Ms. Methods shared an example:

> *The Common Core training that we just had was fabulous because we were all very kind of lost in what in the world does the Common Core mean to the media specialists, so that one was great.*

Lou Wright: The Professional Librarian

I was nervously asking for support for my research at the plenary session of a statewide SLMS professional conference. During the evening mixer, I met Ms. Wright and we chatted a mile a minute in the corner about the impact of professional routes taken by SLMS on the field. She was alternatively certified and thought it important to give voice to this perspective.

Ms. Wright graciously agreed to share her inspiration, academic pathway, certification route and professional progress. At 11 years old, she decided to be a writer and eventually became a screenwriter for soap operas in Los Angeles. She then took a job at Apple. After working for a period at Apple, Ms. Wright chose to take a teaching position as a 6-12 grade English teacher and enroll at a major university with an alternative certification program. She was at an alternative school, refurbishing old Macs, aggressively integrating technology, and considering her next steps:

> *My first job was at an alternative high school, where kids were kicked out of the regular high school and given the opportunity to go to this high school before they were going to really be expelled out of the school system. I started out as an English teacher. Even as an English teacher, I started to incorporate media. I brought in my Macs, my old Macs. I knew how to fix them. I brought them into the classroom. I knew that if I had a Mac, I could teach, my way. Because that was the technology tool I was fluent with, strong with and could do anything on, that even nowadays I can do anything on, make music, you know, make movies, show videos, do some sort of photo technology with the children.*

As an English teacher, Ms. Wright yearned for a position in which she could infuse more of her talents and interests. Ms. Wright read *Information Power 2* and passed the media specialist subject area test and became a media specialist. She said,

> *I remember being on the phone with my aunt, a retired teacher in a northeastern state, and she said (I was offended at the time), "You're a jack of all trades. You do many things well, but nothing can pigeon hole you into a career," until we found library and the media specialist position. Here, all of my talents, writing, Internet, technology, even singing because I sing for the children, the ability to perform. I have an acting background from five years old to about 18 years old. I was always in plays and always performing, so every talent, every artistic talent that I had, my background in office work, working for an engineering firm, the copying, the collating, the organization, the planning; that all came to a culmination when I became a librarian.*

Ms. Wright credited her current county for being "phenomenal with its professional development offerings." She described her professional development within the county:

> *Let's just start with the alternative certification program. As soon as I got to this county and I had to be a media specialist for this county. I had to take six courses for the county alone in one year because I only had a year left. So I had to give up my master's degree at the major university. It was a requirement. It was okay, put my master's degree away. Took the alternative certification program here. Learned so much. Decided the county's got it going on, professional development. Professional development is free.*

While passing the media specialist exam was easy, obtaining a stable position as a media specialist was more difficult for Ms. Wright. First, she became a media specialist and was replaced within her 90-day probation. She went back to being a high school English teacher until another media specialist opportunity emerged, this time in an elementary school. This time she was moved out of the library to teach Kindergarten because the school admitted 1300 when they staffed for 700 students. Soon after, she earned a position as a high school TV production teacher. She described that moment in her career:

> *There was a scandal at that school come December. I was there November 1. Come December, there was a scandal at that school. The principal resigned over the scandal. New principal comes in. School becomes an F that year and they restructured that school completely, and I am out again. I'm like; "This is my fifth school in less than two years." I'm like; "I must be doing something wrong. I must not be a good teacher or I need to get this right. What am I? Am I a librarian or am I teacher or what am I?"*

Ms. Wright answered that question in her next interview when she saw the physical layout and overall aesthetic of the library. She said,

> *When they showed me this room, I really made a decision in my own self . . . that day I remember, because this reminds me of where I grew up. I'll show you a picture of it, where I grew up. I grew up on the river. I saw this and I went, okay, I really want to make this one work. This is where I need to make this work. This is the most beautiful environment I have ever . . . this did not look like this when I was first here, but the murals were here, the view was here, and I just felt, I felt*

right here. I felt like home. That was why. When I saw this library, I felt like I was home.

Ms. Wright continues to make the media center her professional home. The circulation desk is in the front of the library. On one side there are 10 chess sets, some with games in progress. Facing the wall-to-wall window is a rocking chair. There are computers along the walls. The center of the library has shelves of books. One side of the library has a U-formation of desks facing a screen, projector and laptop station. When discussing the U-formation, Ms. Wright said,

I live here, not the principal. He stays all the way up there. He comes in here and he tells me he does not like my U, this U right here, but that's how I teach. He likes it all busted up so people could be in small groups. So look what just happened this year because I said, "No, you're not taking my U away." He put wheels on the tables so that he could have it his way in organizing his physical space.

In negotiating the media center layout, Ms. Wright gave the following advice to other media specialists. She said, "Merge your collaborative ideas on how your library environment should look, but to stick to yours because you have got to live in this environment. Be strong with your beliefs because you are the one who lives here." Behind the circulation desk is the television studio and a small workroom.

Ms. Wright's SLMS overall philosophy is that her relationships with students are her priority. She said,

Number one most important thing about being a media specialist is my relationship with my students. It is my rapport with my students. It is making

sure I know that child's name. I know that when he comes in I know he's a fifth grader. This kid comes in; I know that he's this grade. This is his name. We talk like this. And I will talk different, I'll modify because I know my kids. . . If you don't make that personal connection with a student, they are not going to, if you don't make them feel like you want to know what they are about, they are not going to care about anything you are about. And first I make that connection and then they care about my environment. When I start caring about them and what they are about, then they look at me in a different way. I gave them respect first so then they give me respect back. And it's all about with the children making them feel safe that they can have that exchange with you. Number one is your rapport with your students. I put that above my rapport with my teachers. I do.

Ms. Wright described how she bridged the teaching and learning dynamic with the teachers in her school.

Ms. Wright described the ways in which she developed and maintains communication with the teachers at her school. S he began the conversation with teachers by asking what they need. She used an online survey to ask teachers the reasons they do not use the library. When asked, the staff said they could find resources on their own, Ms. Wright said,

If my teachers are now to that point, because I have a young staff, where they are information literate, (not as well as me or what I can enhance with copyright or ethics) but they know where to go if they need a video on "leaves." They do not need me now for that avenue. But, they may lack in something like instead of attaining resources. Another thing that came up was they did not know how to

use certain technologies that I knew how to use. Yes, they can get the book that they need or the video that they need, but perhaps they would not know how to use a poster printer, the dye cut, or the iPod.

Ms. Wright noted that in addition to knowing the teachers' needs, part of building collaborative relationships with teachers is meeting those needs. She asserted, "If a teacher needs something, I'm going to get it, even if I don't have it. I do an interlibrary loan." Ms. Wright emphasized the need to be the resource the teachers need. She said,

The reading endorsement is what connected me to collaborate with my staff and feel like a leader. After I took reading endorsement (because I had a good amount of my staff that didn't take reading endorsement), I felt I was now at that level as a resource teacher now because I had knowledge of a resource that most of my staff do not have . . . The ACP program in this county, the six core classes of that, but then I merged that learning with my reading endorsement and added that endorsement to my certificate, that bridged everything, the reading to learn, the differentiation of instruction, classroom behavior, classroom management, with the reading endorsement, knowing how to . . . those I got done before I decided to then move onto my National Boards, which I could really attribute equivalent as to getting your master's.

Ms. Wright noted that when discerning between SLMS, she does not differentiate by certification route, instead she distinguished between those SLMS that are nationally certified and those that are not.

Communication needs assessment, and providing resources are some of Ms. Wright's collaborative tools. She gives an anecdote of how a request from a teacher can become a collaborative opportunity with a grade level:

> *I had a request from a first grade teacher to come and see her after school. I was putting it off until about 3:00 and I said, "Oh, okay. I'm going to go venture down to the first grade and see Ms. Lawson" and I walk in and all of them (first grade teachers) are there. And I went, "Oh, gosh, I thought I was just going to see Ms. Lawson." They were explaining to me how they needed black history month resources. I said, "Well, it's too late now because fifth grade took them and Art took them. I don't really have anything." Then I said, "Oh, no, no, no. I have this online resource. We can make a free trial here, and it is for kids to two." I went, "Let me go back to the library for a second." I went back to the library, grabbed two of the same copies of a book about "Art from the Heart" by Clementine. Her lesson comes in time and I had an FRA lesson that I could partner with a resource teacher. They needed something and I had that knowledge. I want people to know that the librarian can help you get to your goal quicker than you doing it alone.*

Ms. Wright noted how this type of collaboration with teachers is a critical component of her work. In a meeting with the principal, she was praised by her peers for support of teachers.

> *He (the principal) asked, "Let's have some celebrations." And one teacher said, "I want to celebrate Mrs. Wright. When I tell her I need books about pets or when I tell her I need resources about Thanksgiving or resources, Ms. Wright gives me everything she can give me." And then, boom it started popcorning. And now*

he's never in here. Whenever he's in here, I mark when he's in here and he's never in here, so he doesn't really understand what happens here, but that day he did. Because all the teachers that I had helped so far in this school year popcorned up and said, "Oh, yep, me too." And whatever resource they want, I get . . .that day that showed that's what my job is, it is to when you need something and you are not able to find it yourself, information or you do not have time, I am your resource.

Ms. Wright is committed to being a resource for her learning community. She said, “Librarians have this desire for you to learn whatever you want to learn. Librarians want to facilitate you to that the quickest, and best . . . work smarter, not harder to get you there.” She described experiences when she has acted as a resource for educational leaders at her school. Ms. Wright keeps a detailed and time stamped data notebook. She told a story in which she was asked by an AP about the events of the prior year. According to Ms. Wright, the AP asked,

"Can you look back in your binder and tell me what we were doing on this day?" So I'm now another resource of documentation of daily life for our school and for our library. “What was going on this day, Lou, can you see?” my AP asked. I couldn't believe when she asked me that. They really do consider my recordkeeping a resource for even their own data that they need in the office.

Part of the reason that Ms. Wright sought higher degrees in her field was to be able to teach professional development for media specialists. She said, “I wanted to offer trainings. I wanted to have nobody question that I knew what I was doing.” For example, she is in the process of planning a technology integration training that includes

using the iPod for digital writing and research. This expertise and credentialing is necessary when doing peer-to-peer training. Ms. Wright said, “There's a girl who's out of school who is taking her university grad classes for media specialist, she had to do a study, and she came to my school to see how I run it.” She also noted that she helped develop other media specialists:

> *I had a person who is a lot older than me. She has her Masters in Library Media Science, but she did it in the 80's. She shadowed me from February until May and came in to be my volunteer whenever she could. Her name was Mrs. Hikow. Ms. Hikow learned from me. She could have learned from any librarian. I'm not even certified to the max, you know, but she chose me. And she got a job. That's what she wanted. She got her job and she attributes it all to just watching how I ran things and just how much I loved doing what I do.*

She noted that collaboration does need to be included in SLMS training. Ms. Wright said, “Professional development for collaboration needs to go back to the basics of team building. Even being open to want to talk to a group of people starts the pyramid of all right, now I am at the pinnacle where I can walk into a team planning meeting and collaborate.” Ms. Wright noted that her first step “with collaboration would probably be a team building and a lesson planning training, so you knew how to even approach a team with ice breakers and starter questions and then go into graphic organizers that show you how to lesson plan together collaboratively.” According to Ms. Wright, SLMS need to collaborate with teachers and with each other. She noted that participation in professional organizations, professional learning communities, list serves and online forums are some of the ways that media specialist can work together. She said, “It took

me six schools and two years to find this and now I've been here six years and now I'm just emerging as a leader in, you know, like in the media specialist forum here in the county." Ms. Wright credits collaboration with media specialists in her region as a framework for her leadership. Ms. Wright said that mentoring others and being mentored has been the best way to develop as a leader. When she described leadership, she said,

> *Leadership comes from your communications with leaders to decide if that's the kind of pace you want to go in, if you want to be that media specialist that you want people to come and see how your program works. I can't believe how I've been embraced in my media specialist community, how many librarians have come to see me . . . how when Jos Hix came, at the beginning of the school year to see how I was transitioning, even into becoming a gifted school . . . and I'm sure I'm going to get a visit from him next year, because I'm now an IB school. I'm asking him, who should I look to? I ask my leader, who should I go and visit and see a better library than me. And he said, "There's really nobody as strong as you. I mean, you could go to . . . you could go to A, B, C school, but she's got nothing on what you've got. She's the same demographic as you, but you're the one that they come to."*

Ms. Wright said that effective professional development for SLMS should include conversation with National Board Certified teachers, SLMS, and the supervising media specialist in the district/state.

In our conversation about technology and professional development, Ms. Wright said, "Education is not catching up with technology as quickly as technology is breaking down our door." She contended that SLMS should know how to make and maintain a

website. Ms. Wright does not think that social networking is a necessary subject for SLMS:

> *I don't think social networking is essential because social networking is getting people in trouble. I don't think you need to have a Facebook for your library and you need to have a Twitter for your library. I think these are fads. I had a MySpace. It faded out. Facebook took over. Facebook's going to have a run and I think it's going to fade out. I don't think Facebook is a forum for schools. And Moto was going to try and take over and try to be a Facebook for schools. I love the school system. So you have to work again within the confine of your resources. Luckily, they let me make my own website using my stuff. I don't need a Facebook. I don't need a Twitter when I have my own website that I can manage my own contact myself. You have something you want on my website, submit it. E-mail me and we'll decide. But Facebook leaves you open, leaves you so open.*

Ms. Wright has an opinion of what should be included and excluded in SLMS professional development. She also noted best practices for training SLMS.

Ms. Wright is an advocate for self-selected, individualized and differentiated professional development. She said, "As a media specialist, you have to tailor your knowledge to you, and you have to tailor your professional development learning to you." Ms. Wright has several technology related anecdotes that support her opinion. She shared an example of her television studio versus another SLMS television studio. Since, they are two different systems the professional development needs to reflect those differences. Similarly, since some schools have Smartboards and others have Promethean boards, training should be differentiated and based on need. She said,

When you get to your location, you assess your needs for yourself to see what your professional development should be. You might come to the table knowing what some of this stuff is. And then from there you need to gap the holes. You need to plug our holes up of different things . . . When you come into your school, assess what you've got. When you don't know something . . . like if I was to walk into here right now and not know anything about these things, I'd be like, "All right. I need to make an appointment with the Smartboard providers, the vendors. They need to come out here and teach me this," which they actually did do.

Ms. Wright affirmed that effective professional development must have an opt-out option especially as it relates to technology:

When it comes to technology, we have to assess what technology you have and what lack of skills you have with that technology to then make your training yourself. If they brought in United Streaming as an online resource, Josh Hix would probably have me take so many courses on United Streaming. I don't need that. I know how to do United Streaming. I got it from another school. I should be opted out of that training. It's a waste of my time. There's so many different trainings I've taken that I'm looking at this going, "Why me because this has nothing to do with me." I should be doing something that's more catered towards me like state standards website was pretty cool because it has all the state standards and the common core trainings. But Rapid Web Design was such a waste of my time. And what was even more upsetting in hindsight (not necessarily for me at the time), I got paid for that training and there was no reason to pay me for that training. I don't even need that training. So now not only do we have a

waste of money in professional development that I am not even going to use, you know, you just wasted my time and my money.

Ms. Wright concluded that professional development should be intrinsically driven. She said, "I want it to be you've come to this training because you physically know and feel inside that you don't know what you're doing, and that you want to be better." When Ms. Wright reflected on her career route and future, she noted that she wants to be better. She described her dream library. In her perfect school, there is intergenerational teaching, learning and mentorship. Classrooms are multi-grade and learning levels have no stigmas. She said,

My ideal library would be a secretary at my desk so I can teach all day, whether I am teaching kids small groups, teachers or parents and having them come in for trainings like even at the public library of the online resources available for them and their students and for them to grow. Even the parents that have baby babies should come into my library to learn about myON. I should be freed up to do that is what I think a school library should do, cater to their clientele, to their patrons, very customer service oriented.

Summary

In Chapter Four research results are presented. In Chapter Five, results are analyzed, synthesized and recommendations for future research are made.

Chapter Five: Conclusions

Introduction

The purpose of this study was to determine if there were differences between AC and TC SLMS as it relates to their perceptions of collaboration, leadership and technology. In addition, interview data are analyzed as a cross-case analysis. Patterns, inconsistencies and emergent themes are described. Survey, researcher reflective blog data, observations, and interview data are compared to prescribed research themes, theoretical implications and findings. Furthermore, professional development recommendations and directions for future research are presented.

Sample

A chi square goodness of fit test revealed that the proportion of AC and TC SLMS samples were reflective in size of the actual population of Florida SLMS as it relates to *method of certification* (alternatively or traditionally certified). Past studies have been unable to make direct comparisons because the numbers of AC and TC SLMS were not available (Lance & Hofschire, 2011). In their work, *Something to Shout About: New Research Shows that More Librarians Means Higher Reading Scores*, Lance & Hofschire (2011) noted that counts of library positions generated for their study came from the Common Core of Data (CCD), and test scores came from the National Assessment of Educational Progress. These organizations are affiliated with the National Center for Educational Statistics. They noted that, "State counts of librarians include

librarians at all grade levels. As for all positions tracked by CCD, these counts of librarian positions are based on a definition that specifies what the individual does, not what credentials she or he may have. Thus, it's impossible to know how many of the librarian positions reported here are state-certified librarians."

A chi square goodness of fit test revealed that the sample was not reflective of the population of Florida SLMS as it related to gender or race. The sample included only 7% males; whereas, the actual population is 20% male. In future studies, greater effort should be made to increase the participation of men in SLMS studies. As it relates to race, the majority (83.4%,) of respondents to the survey were white. In the actual population 71.6%, are white. Targeted marketing of the online survey to underrepresented populations was not done in this study, which potentially biased the study as it relates to race. Additional outreach to both men and persons of color would be more reflective of the SLMS population and would enrich the conclusions of future investigations.

Significant relationships between *method of certification* and *age*, *highest degree earned* and *years as a SLMS* were found. As noted in Chapter Four, the strength of association between *method of certification* and *age*, *highest degree earned*, and *years as a SLMS* were medium (Cramer's V = 0.15), large (Cramer's V = 0.46), and large (Cramer's V =0.46), respectively. Cell chi-square values revealed that AC SLMS were more likely to be younger than TC SLMS. Both groups had the largest frequency in the age group 50-59 (33.6% of AC sample and 42.1% of TC sample). These findings indicate that while the largest group of SLMS is between ages 50-59, this trend is on the decline and the numbers of younger AC SLMS are increasing (Table 15). It also makes

sense that the AC SLMS are a younger labor force since alternative certification in Florida was implemented in 2002-2003.

Cell chi-square values revealed that AC SLMS were less educated than TC SLMS. Of the AC SLMS that participated in the survey, 47% had a BA and 48% reported that they had an MS. A larger percent of the TC population (86%) earned a MS. The traditional route to certification is to earn a master's or 30 hours above a bachelor in Library Media Science, therefore it makes sense that those SLMS that identify as TC would also have a master's degree.

Cell chi-square values revealed that AC SLMS had fewer years of SLMS experience than TC SLMS. Of the 202 AC SLMS who completed the demographic part of the survey, 50% responded that they have had 0-5 *years as a SLMS*, and 31% responded that they have had 6-10 years of experience. Among 377 TC SLMS: 15% have been in the position for 0-5 years, 22% for 6-10 years, and 24% for 11-15 years (Table 29).

Table 29: *Years as a SLMS*

# of Years	AC		TC	
	Frequency	**% of Sample**	**Frequency**	**% of Sample**
0-5	101	50%	60	16%
6-10	65	32%	83	22%
11-15	9	4%	91	24%
16-20	5	2%	57	15%
21-25	4	2%	33	9%
35-30	7	3%	18	5%
>30	4	2%	19	5%
No Answer	7	3%	16	4%
Total	202	100%	377	100%

Research Question 1: Are there significant differences in *saliency* ratings on items related to collaboration, leadership and technology between AC and TC SLMS?

As indicated by the results presented in Chapter Four, there were no significant differences in AC and TC SLMS saliency ratings within the themes collaboration, leadership and technology. Despite differences in the pathway to certification, AC and TC SLMS have similar perceptions of the importance of their job tasks. Reasons for this lack of difference may include the following:

- AC SLMS come to the profession with prior knowledge of the job tasks
- The add-on exam is a sufficient preparatory experience
- School/district expectations are clear
- The current professional development is adequate

This lack of significance supports the research findings of Milton, Flood & Dukes (2006) in the study entitled *Alternative Teacher Certification in Florida: Fourth Annual Progress Report, used by* the Florida Department of Education (FLDOE) to guide enhanced program effectiveness since 2002-2003. Researchers (Milton, Flood & Dukes, 2006) found that AC teachers have a 90% SLMS return rate and principals note that 90% of AC teachers met their criteria for rehire. This result is reinforced by statewide research conducted by Milton, Curva & Milton (2011) entitled "*Teachers from Florida teacher preparation programs: A report on state approved teacher preparation programs with results of surveys of 2008-2009 program completers*" which showed no significant differences within the AC and TC groups.

While none of the 10 job tasks within the theme technology had significant differences in saliency rates of AC and TC SLMS, within the themes collaboration (14

items) and leadership (13 items), each theme had one task with a large significant difference between AC and TC groups. In the theme of collaboration, the task C9 "*Assist students and/or teachers with general references services (e.g., answer reference questions)*" had a significant difference between groups. The mean saliency rates of TC SLMS were greater than the mean saliency rates of AC SLMS, which indicates that TC SLMS felt that this task was more important than AC SLMS. One reason for this difference may be because references services are taught explicitly in traditional SLMS preparation programs. In observations and conversations with the four selected interview participants, both AC SLMS deemphasized reference services and library layout whereas the TC SLMS talked about the importance of the Dewey Decimal system to the reference services in their libraries. This significant difference in the AC and TC saliency score of this job task warrants further exploration.

In the theme of leadership, for the task L4 "*Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes,*" the mean saliency rates of TC SLMS were significantly higher than the mean saliency rates of AC SLMS. TC SLMS may feel this job task is more important than AC SLMS because of their increased exposure to *IP2*. *IP2* provides a framework for strategic leadership that incorporates standards, a planning process, and an evaluation scheme (Donham, 2005). According to the vision outlined by *IP2*, the SLMS's role as teacher includes being a curricular leader and instructional partner. SLMS demonstrate leadership by bringing an awareness of information issues into collaborative relationships with teachers, administrators, students, and others; and by modeling strategies for locating, accessing, and evaluating information. Having exposure with the specific items

involved in leadership as expressed by *IP2* may have led to TC SLMS rating this job task as more important than their AC counterparts.

These results support the research done by Smith (2011) entitled *Educating Pre-service School Librarians to Lead: A Study of Self-Perceived Transformational Leadership Behaviors,* which sought to determine the factors that impacted the level of self-perceived transformational leadership potential in pre-service school librarians who participated in Project Lead, a master's degree program in library and information studies focusing on leadership development. The study population scored significantly higher than the national population on two LPI subscales—Modeling the Way and Enabling Others to Act (Smith, 2011). The qualitative analysis further revealed that the participants learned skills in leadership through participation in Project Lead (Smith, 2011). Once again, it is possible that the task within the realm of leadership was considered more important to TC SLMS because of explicit opportunities to practice leadership skills in traditional preparatory programs.

Longitudinal Analysis of Mean Saliency Ratings

The mean saliency ratings of the present study were compared to the 1996 PDRI and 2006 Pace results to examine trends in the perceptions of SLMS. It is important to note that the two previous studies included only TC SLMS. Tables 30, 31 and 32 illustrate the longitudinal comparison of mean saliency rates for collaboration, leadership and technology job tasks over time. A longitudinal difference existed for five out of the 14 job tasks for collaboration (Table 30). For the job task, "*Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.),*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean

saliency rates for 1996, 2006, and 2012, were not significantly different from one another (Table 33), even though the ANOVA suggested otherwise (Table 30). This result may be due to the small effect size and because the ANOVA compares the mean among all years whereas the Tukey-Kramer test compares two individual means. For the job task, "*Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units,*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 1996 was not significantly different than the mean saliency rate for 2006 (Table 33). However, the mean saliency rate for 1996 and 2006 was significantly different than the mean saliency rate for 2012 (Table 33). For the job task, "*Assist students and/ or teachers with general references services (e.g., answer reference questions),*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 2006 was not significantly different than the mean saliency rate for 2012 (Table 33). Conversely, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2006 and 2012 (Table 33). For the job task, "*Assist students and/ or teachers in locating and selecting materials,*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 1996 was not significantly different than the mean saliency rate for 2012 (Table 33). However, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2006 and the mean saliency rate for 2006 was significantly different than 2012 (Table 33). For the job task, "*Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books,*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 1996 was not significantly different than the mean saliency rate for

2006 (Table 33). Conversely, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2012 and the mean saliency rate for 2006 was significantly different than 2012. Post hoc significant differences are illustrated in Table 33.

For the job tasks associated with leadership, three out of 13 mean saliency rates were significantly different between 1996, 2006, and 2012 (Table 31). For the job task, "*Inform faculty of new media center services, materials, and technology,*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 2006 was not significantly different than the mean saliency rate for 2012 (Table 33). However, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2006 and 2012 (Table 33). For the job task, "*Inform faculty and or students of copyright laws and interpret as necessary*," post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 1996 was not significantly different than the mean saliency rate for 2012 (Table 33). In contrast, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2006 and 2006 was significantly different than 2012 (Table 33). For the job task, "*Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.),*" post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rate for 1996 was not significantly different than the mean saliency rate for 2012 (Table 32). In contrast, the mean saliency rate for 1996 was significantly different than the mean saliency rates for 2006 and 2006 was significantly different than 2012(Table 33).

For the job tasks associated with technology, one out of 10 mean saliency rates were significantly different between 1996, 2006, and 2012 (Table 33). For the job task, "*Keep informed about new technologies*," post hoc comparisons using the Tukey-Kramer HSD test revealed that the mean saliency rates for 1996, 2006, and 2012, were not significantly different from one another (Table 33), even though the ANOVA suggested otherwise (Table 32). Once again, this may be due to the small effect size and because the ANOVA compares the mean among all years where as the Tukey-Kramer test compares two individual means.

Not a Part of the Job Task

In addition to identifying how SLMS perceived their job tasks as reflected in the saliency scores, it was important to analyze those job tasks that SLMS did not feel were a part of their job. Comparison of mean percentage over time suggests that there have been decreases in the SLMS perception of tasks that were *not a part of the job* for collaboration and technology (Figure 17). This indicates that SLMS feel that there are more responsibilities (tasks that are a part of the job) in 2012 related to collaboration and technology than there were in 1996 or 2006. For the theme leadership, comparison of mean percent over time illustrated that there were decreases in the perception of tasks that SLMS felt were *not a part of the job* between 1996 and 2006; however, between 2006 and 2012 perception of tasks that were *not a part of the job* increased (Figure 17). This increase in mean percent in 2012 for leadership was still lower than the mean percent in 1996. Therefore, even though SLMS felt that there were fewer responsibilities between 2006 and 2012 as it related to leadership, this was not the case over time (1996 – 2012).

Table 30: Longitudinal Comparison of Mean Saliency Rates for Collaboration Job Tasks

Theme	Job Tasks: Collaboration	1996 n	1996 Mean Saliency	2006 n	2006 Mean Saliency	2012 n	2012 Mean Saliency	df	F value	p value	ES
C1	Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	513	3.43 ± 1.06	498	3.27 ± 1.23	479	3.17 ± 1.29	2	2.3	0.1	0.06
C2	Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).	513	3.70 ± 0.85	496	3.76 ± 0.94	479	3.65 ± 1.19	2	3.71	**0.02**	**0.07**
C3	Introduce materials of special interest to class groups (e.g., via book talks or story telling activities).	502	2.93 ± 1.13	492	2.7 ± 1.07	479	3.23 ± 1.29	2	2.17	0.11	0.05
C4	Conduct workshops/ in-service and other training for teachers - use of materials, equipment, technology, and new production techniques.	509	2.04 ± 1.54	493	2.93 ± 0.93	479	2.99 ± 1.39	2	1.54	0.22	0.05
C5	Work with teachers to design innovative instructional approaches.	508	2.52 ± 1.20	474	2.72 ± 1.04	479	2.78 ± 1.46	2	1.72	0.18	0.05
C6	Participate in team teaching activities.	512	2.2 ± 1.29	477	2.74 ± 1.11	479	2.83 ± 1.74	2	1.32	0.27	0.04
C7	Keep teachers informed concerning students' information skills.	512	2.37 ± 1.05	476	2.87 ± 1.01	479	2.63 ± 1.42	2	1.91	0.15	0.05
C8	Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.	512	3.58 ± 0.81	476	3.55 ± 0.91	479	4.07 ± 1.04	2	4.39	**0.01**	**0.08**
C9	Assist students and/ or teachers with general references services (e.g., answer reference questions).	509	3.59 ± 0.85	469	3.34 ± 0.90	479	3.35 ± 1.20	2	3.47	**0.03**	**0.07**
C10	Assist students and/ or teachers in locating and selecting materials.	511	3.97 ± 0.73	469	3.70 ± 0.88	479	4.04 ± 1.12	2	4.61	**0.01**	**0.08**
C11	Instruct teachers and students in media center policies and procedures.	511	3.12 ± 1.13	469	3.16 ± 0.90	479	3.33 ± 1.26	2	2.6	0.07	0.06
C12	Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books	511	3.28 ± 0.97	462	3.34 ± 1.03	479	3.63 ± 1.22	2	2.95	**0.05**	**0.06**
C13	Work cooperatively with district and/ or regional education and media center service units.	508	3.00 ± 0.89	476	2.95 ± 1.09	479	2.65 ± 1.39	2	2.22	0.11	0.06
C14	Work cooperatively with public libraries to promote and encourage student and family use of resources.	507	2.33 ± 1.04	476	2.69 ± 1.03	479	2.19 ± 1.28	2	1.91	0.15	0.05

Note: Red numbers indicate significance. Effect sizes for *F* test analysis are: small=.10, medium=.25, large=.40 (Cohen, 1988).

Table 31: Longitudinal Comparisons of Mean Saliency Rates for Leadership Tasks

Theme	Job Tasks: Leadership	1996 n	1996 Mean Saliency	2006 n	2006 Mean Saliency	2012 n	2012 Mean Saliency	df	F value	p value	ES
L1	Inform faculty of new media center services, materials, and technology.	513	3.36 ± 0.76	477	3.55 ± 0.87	479	3.53 ± 1.14	2	3.99	**0.02**	**0.07**
L2	Inform faculty and or students of copyright laws and interpret as necessary.	509	3.17 ± 0.88	469	3.37 ± 0.95	479	3.16 ± 1.21	2	3.10	**0.05**	**0.07**
L3	Organize and/ or participate in technology teams/ technical committees.	504	2.04 ± 1.54	468	3.15 ± 1.04	479	2.59 ± 1.60	2	1.29	0.28	0.04
L4	Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.	507	2.38 ± 1.40	461	2.14 ± 0.79	479	2.58 ± 1.70	2	1.28	0.28	0.04
L5	Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.	510	2.83 ± 1.11	460	3.17 ± 1.00	479	2.95 ± 1.47	2	2.04	0.13	0.05
L6	Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)	507	2.71 ± 1.18	464	3.11 ± 1.15	479	3.15 ± 1.36	2	1.97	0.14	0.05
L7	Develop a strategic plan for the media center, including mission, goals and objectives.	512	3.13 ± 0.99	465	3.41 ± 1.01	479	3.47 ± 1.23	2	2.86	0.06	0.06
L8	Organize and/ or facilitate a school library media advisory committee for short and long range planning.	510	2.36 ± 1.10	454	2.94 ± 1.02	479	2.32 ± 1.41	2	1.80	0.17	0.05
L9	Interpret and apply national, regional, state and local standards and guidelines to library media programs.	513	2.83 ± 0.98	456	3.14 ± 1.02	479	3.42 ± 1.25	2	2.64	0.07	0.06
L10	Plan and participate in meetings to present the functions and services of the media center to parent and community organizations.	511	2.17 ± 1.19	456	2.67 ± 1.03	479	2.44 ± 1.33	2	1.71	0.18	0.05
L11	Lead or participate in School Improvement Teams.	512	2.95 ± 1.09	455	1.15 ± 0.42	479	2.71 ± 1.53	2	1.82	0.16	0.05
L12	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).	509	2.94 ± 0.88	476	2.21 ± 0.74	479	2.95 ± 1.20	2	2.94	**0.05**	**0.06**
L13	Upgrade relevant professional skills (e.g., attend college courses and/ or seminars).	511	2.17 ± 1.19	478	3.35 ± 1.03	479	3.17 ± 1.20	2	2.21	0.11	0.05

Note: Red numbers indicate significance. Effect sizes for *F* test analysis are: small=.10, medium=.25, large=.40 (Cohen, 1988).

Table 32: Longitudinal Comparisons of Mean Saliency Rates for Technology Tasks

Theme	Job Tasks: Technology	1996 n	1996 Mean Saliency	2006 n	2006 Mean Saliency	2012 n	2012 Mean Saliency	df	F value	p value	ES
T1	Provide formal instruction in information skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.).	511	3.06 ± 1.10	492	3.17 ± 1.17	479	3.94 ± 1.22	2	2.51	0.08	0.06
T2	Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.).	510	3.26 ± 0.99	492	3.13 ± 1.07	479	3.61 ± 1.25	2	2.73	0.07	0.06
T3	Instruct teachers concerning ways to incorporate technology into the classroom curricula.	510	2.71 ± 1.25	477	2.90 ± 1.10	479	3.04 ± 1.45	2	1.78	0.17	0.05
T4	Assist teachers and students in the use of production techniques.	510	2.57 ± 1.15	465	2.39 ± 0.98	479	2.33 ± 1.57	2	1.54	0.22	0.05
T5	Instruct students and/ or teachers in the use of the public access catalog system.	509	2.58 ± 1.68	467	3.41 ± 0.96	479	3.39 ± 1.21	2	1.77	0.17	0.05
T6	Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.).	513	3.36 ± 1.13	468	3.02 ± 1.11	479	3.13 ± 1.35	2	2.20	0.11	0.05
T7	Provide adaptive technologies for students with special needs.	512	1.55 ± 1.40	465	2.64 ± 1.17	479	2.12 ± 1.63	2	1.05	0.35	0.04
T8	Use online services to retrieve information (e.g., in doing research).	505	1.99 ± 1.56	464	3.05 ± 1.25	479	3.76 ± 1.16	2	1.63	0.20	0.05
T9	Maintain and support a computer network for the media center.	501	2.37 ± 1.94	459	3.11 ± 1.46	479	2.35 ± 1.89	2	0.82	0.44	0.03
T10	Keep informed about new technologies.	507	3.63 ± 0.80	475	3.53 ± 1.02	479	3.60 ± 1.20	2	3.47	**0.03**	**0.07**

Note: Red numbers indicate significance. Effect sizes for *F* test analysis are: small=.10, medium=.25, large=.40 (Cohen, 1988).

Table 33: Post Hoc Test for ANOVA Significant Differences

Theme	Job Tasks: Collaboration	$\overline{x}_1$	$\overline{x}_2$	$\overline{x}_3$	$\lvert\overline{x}_1 - \overline{x}_2\rvert$	Tukey – Kramer HSD	$\lvert\overline{x}_1 - \overline{x}_3\rvert$	Tukey – Kramer HSD	$\lvert\overline{x}_2 - \overline{x}_3\rvert$	Tukey – Kramer HSD
C2	Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).	3.7	3.76	3.65	0.06	0.15	0.05	0.15	0.11	0.15
C8	Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.	3.58	3.55	4.07	0.03	0.14	**0.49**	0.14	**0.52**	0.14
C9	Assist students and/ or teachers with general references services (e.g., answer reference questions).	3.59	3.34	3.35	**0.25**	0.15	**0.24**	0.15	0.01	0.15
C10	Assist students and/ or teachers in locating and selecting materials.	3.97	3.70	4.04	**0.27**	0.14	0.07	0.14	**0.34**	0.14
C12	Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books	3.28	3.34	3.63	0.06	0.16	**0.35**	0.16	**0.29**	0.16
	Job Tasks: Leadership									
L1	Inform faculty of new media center services, materials, and technology.	3.36	3.55	3.53	**0.19**	0.14	**0.17**	0.14	0.02	0.14
L2	Inform faculty and or students of copyright laws and interpret as necessary.	3.17	3.37	3.16	**0.20**	0.15	0.01	0.15	**0.21**	0.16
L12	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).	2.94	2.21	2.95	**0.73**	0.14	0.01	0.14	**0.74**	0.15
	Job Tasks: Technology									
T10	Keep informed about new technologies.	3.63	3.53	3.60	0.10	0.15	0.03	0.15	0.07	0.15

Note: Red numbers indicate a significance difference between the means. $\overline{x}_1$ = Mean saliency rate for 1996, $\overline{x}_2$ = Mean saliency rate for 2006, $\overline{x}_3$ = Mean saliency rate for 2012.

The specific job tasks that SLMS felt were not a part of their job were compared for the 1996, 2006, and 2012 studies by theme: collaboration, leadership, and technology. Five out of the 14 job tasks for the theme collaboration were significant (Table 34). For the job task, "*Provide formal instruction to students in classroom or small group settings in media center and/ or school-wide technology resources (e.g., multimedia production, etc.),"* SLMS in 2012 were less likely to feel that this task was not a part of their job than SLMS in 1996 or 2006 (Table 34; Figure 18). The effect size for this significance was small (Table 34). For the job task, "*Conduct workshops/ in-service and other training for teachers - use of materials, equipment, technology, and new production techniques,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 34; Figure 18). The effect size for this significance was medium (Table 34). For the job task, "*Participate in team teaching activities,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 34; Figure 18). The effect size for this significance was small (Table 34). For the job task, "*Instruct teachers and students in media center policies and procedures,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 34; Figure 18). The effect size for this significance was between medium and large (Table 34). For the job task, "*Work cooperatively with public libraries to promote and encourage student and family use of resources,"* SLMS in 2012 were more likely to feel that this task was not a part of their job than SLMS in 1996 or 2006 (Table 34; Figure 18). The effect size for this significance was small (Table 34).

For the theme leadership, eight out of the 13 job tasks were significant (Table 35). For the job task, "*Organize and/ or participate in technology teams/ technical committees,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was between small and medium (Table 35). For the job task, "*Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.),"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was small (Table 35). For the job task, "*Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.),"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was small (Table 35).

For the job task, "*Develop a strategic plan for the media center, including mission, goals and objectives,"* SLMS in 2006 were less likely to feel that this task was not a part of their job than SLMS in 1996 or 2012 (Table 35; Figure 19). The effect size for this significance was small (Table 35). For the job task, "*Organize and/ or facilitate a school library media advisory committee for short and long range planning,"* SLMS in 2012 were more likely to feel that this task was not a part of their job than SLMS in 1996 or 2006 (Table 35; Figure 19). The effect size for this significance

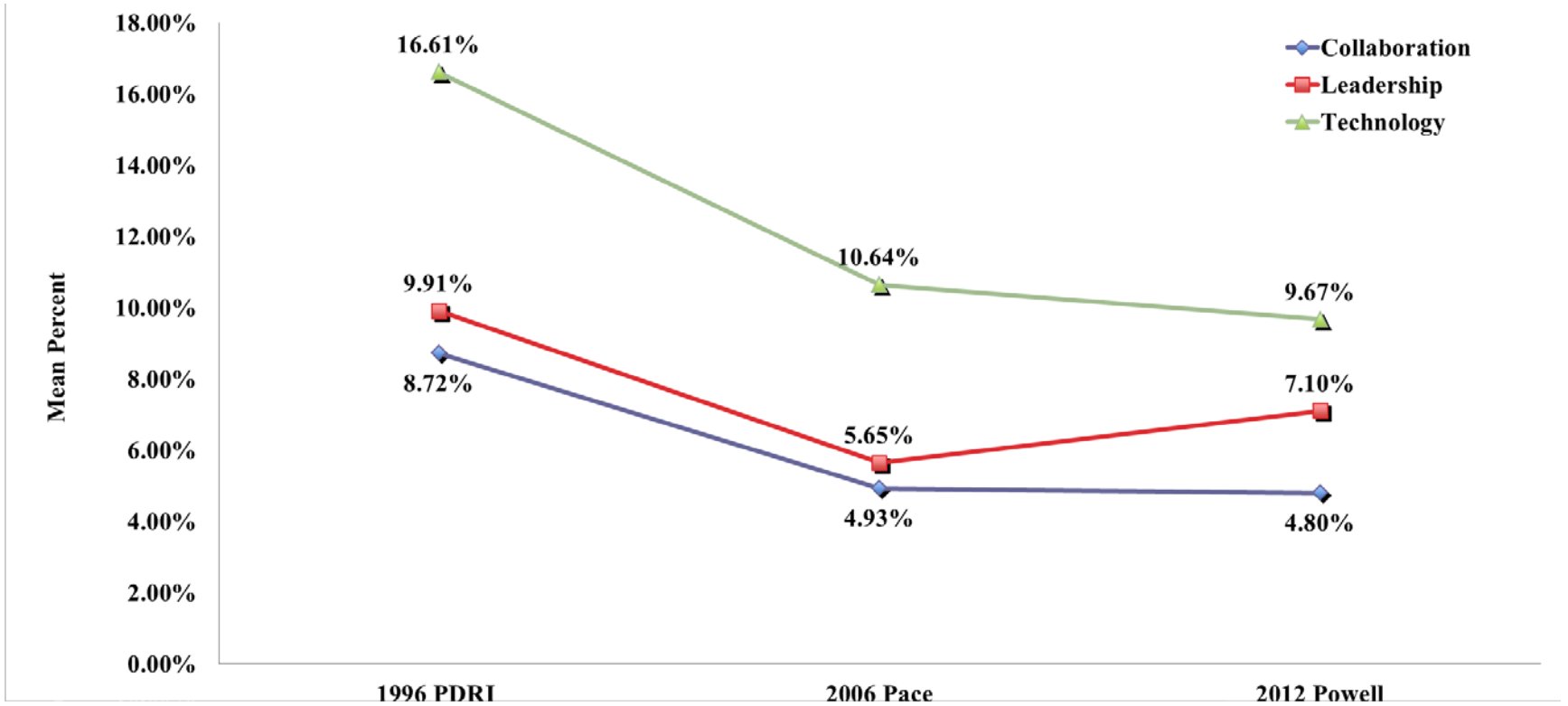


Figure 17 Mean Percent of *Not a Part of the Job* Responses by Theme for 1996, 2006 and 2012

Table 34: Longitudinal Comparisons for *Not a Part of the Job* Tasks Collaboration

Theme	Job Tasks: Collaboration	1996 (%)	2006 (%)	2012 (%)	df	χ^2 Value	p value	ES
C1	Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	4.11%	6.10%	2.1%	2	9.64	**0.001**	**0.08**
C2	Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).	1.36%	1.61%	1.7%	2	0.17	0.92	0.01
C3	Introduce materials of special interest to class groups (e.g., via book talks or story telling activities).	4.58%	3.25%	2.5%	2	3.26	0.20	0.05
C4	Conduct workshops/ in-service and other training for teachers - use of materials, equipment, technology, and new production techniques.	30.84%	6.09%	7.1%	2	155.07	**<0.0001**	**0.32**
C5	Work with teachers to design innovative instructional approaches.	12.20%	12.03%	9.6%	2	2.04	0.36	0.04
C6	Participate in team teaching activities.	18.24%	13.35%	10.9%	2	11.21	**0.003**	**0.09**
C7	Keep teachers informed concerning students' information skills.	8.59%	7.56%	9.2%	2	0.83	0.66	0.02
C8	Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.	0.78%	0.84%	0.2%	2	1.92	0.38	0.04
C9	Assist students and/ or teachers with general references services (e.g., answer reference questions).	0.79%	0.85%	1.0%	2	0.20	0.91	0.01
C10	Assist students and/ or teachers in locating and selecting materials.	0.39%	0.64%	0.2%	2	1.08	0.56	0.03
C11	Instruct teachers and students in media center policies and procedures.	25.83%	0.43%	1.0%	2	240.66	**<0.0001**	**0.41**
C12	Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books	2.74%	3.90%	1.5%	2	5.34	0.07	0.06
C13	Work cooperatively with district and/ or regional education and media center service units.	9.07%	7.56%	9.2%	2	0.99	0.61	0.03
C14	Work cooperatively with public libraries to promote and encourage student and family use of resources.	2.56%	4.83%	11.1%	2	33.08	**<0.0001**	**0.15**

Note: Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

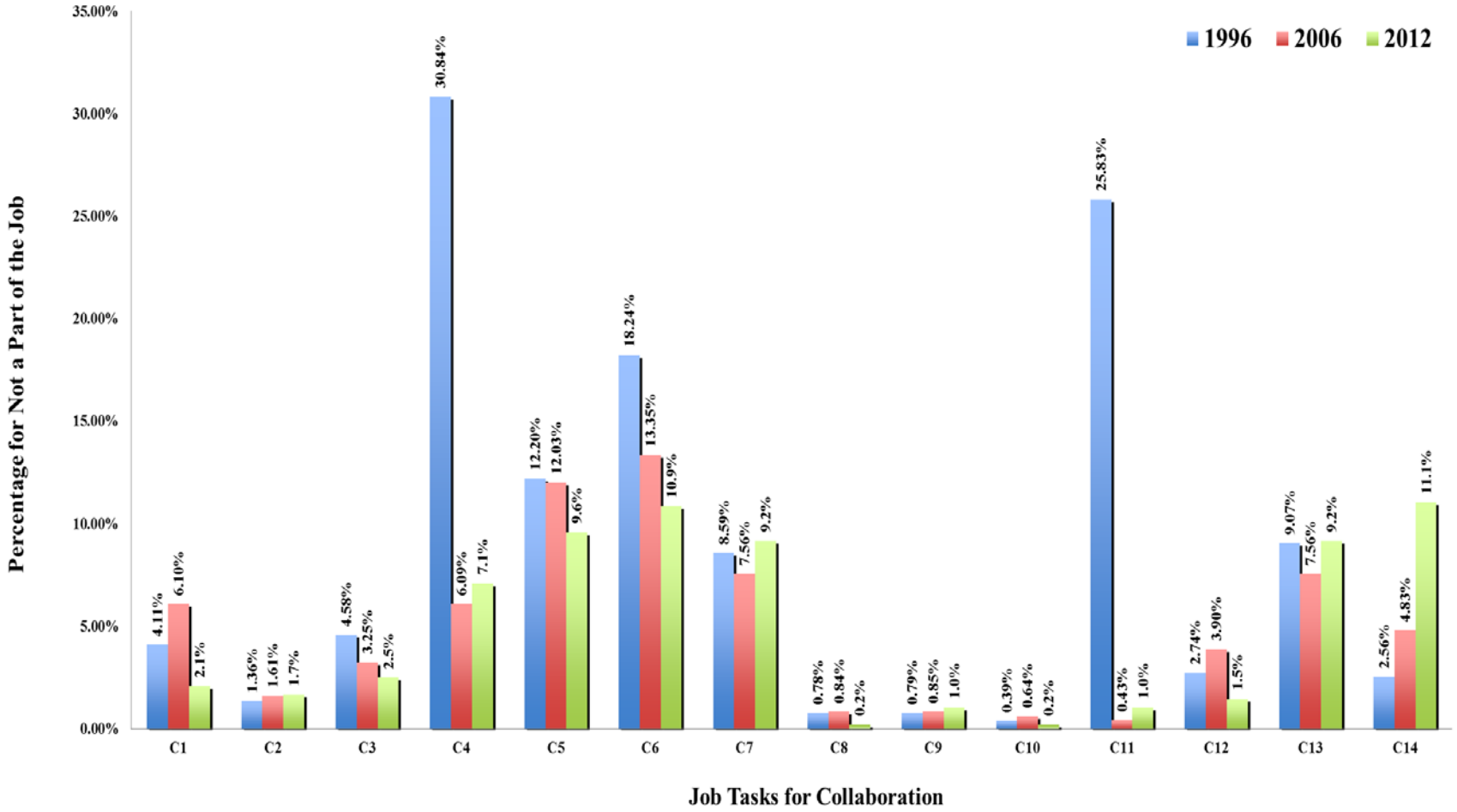


Figure 18 Longitudinal Comparison of *Not a Part of the Job* Response for Collaboration

Table 35: Longitudinal Comparison for *Not a Part of the Job* Tasks Leadership

Theme	Job Tasks: Leadership	1996 (%)	2006 (%)	2012 (%)	df	χ^2 Value	p value	ES
L1	Inform faculty of new media center services, materials, and technology.	0.58%	0.63%	0.42%	2	0.22	0.9	0.01
L2	Inform faculty and or students of copyright laws and interpret as necessary.	0.79%	0.43%	0.63%	2	0.51	0.77	0.02
L3	Organize and/ or participate in technology teams/ technical committees.	31.15%	8.55%	15.87%	2	85.24	**<0.0001**	**0.24**
L4	Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.	20.51%	16.49%	21.92%	2	4.72	0.09	0.06
L5	Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.	7.06%	7.17%	8.98%	2	1.57	0.46	0.03
L6	Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)	9.47%	7.11%	5.01%	2	7.3	**0.03**	**0.07**
L7	Develop a strategic plan for the media center, including mission, goals and objectives.	3.52%	1.08%	2.30%	2	6.37	**0.04**	**0.07**
L8	Organize and/ or facilitate a school library media advisory committee for short and long range planning.	10.20%	9.03%	14.20%	2	7.01	**0.03**	**0.07**
L9	Interpret and apply national, regional, state and local standards and guidelines to library media programs.	4.09%	3.07%	1.46%	2	6.16	**0.05**	**0.07**
L10	Plan and participate in meetings to present the functions and services of the media center to parent and community organizations.	17.03%	10.53%	10.23%	2	13.18	**0.001**	**0.1**
L11	Lead or participate in School Improvement Teams.	5.86%	11.21%	14.61%	2	20.7	**<0.0001**	**0.12**
L12	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).	1.77%	1.05%	2.51%	2	2.9	0.23	0.04
L13	Upgrade relevant professional skills (e.g., attend college courses and/ or seminars).	17.03%	0.42%	1.25%	2	144.53	**<0.0001**	**0.31**

Note: Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

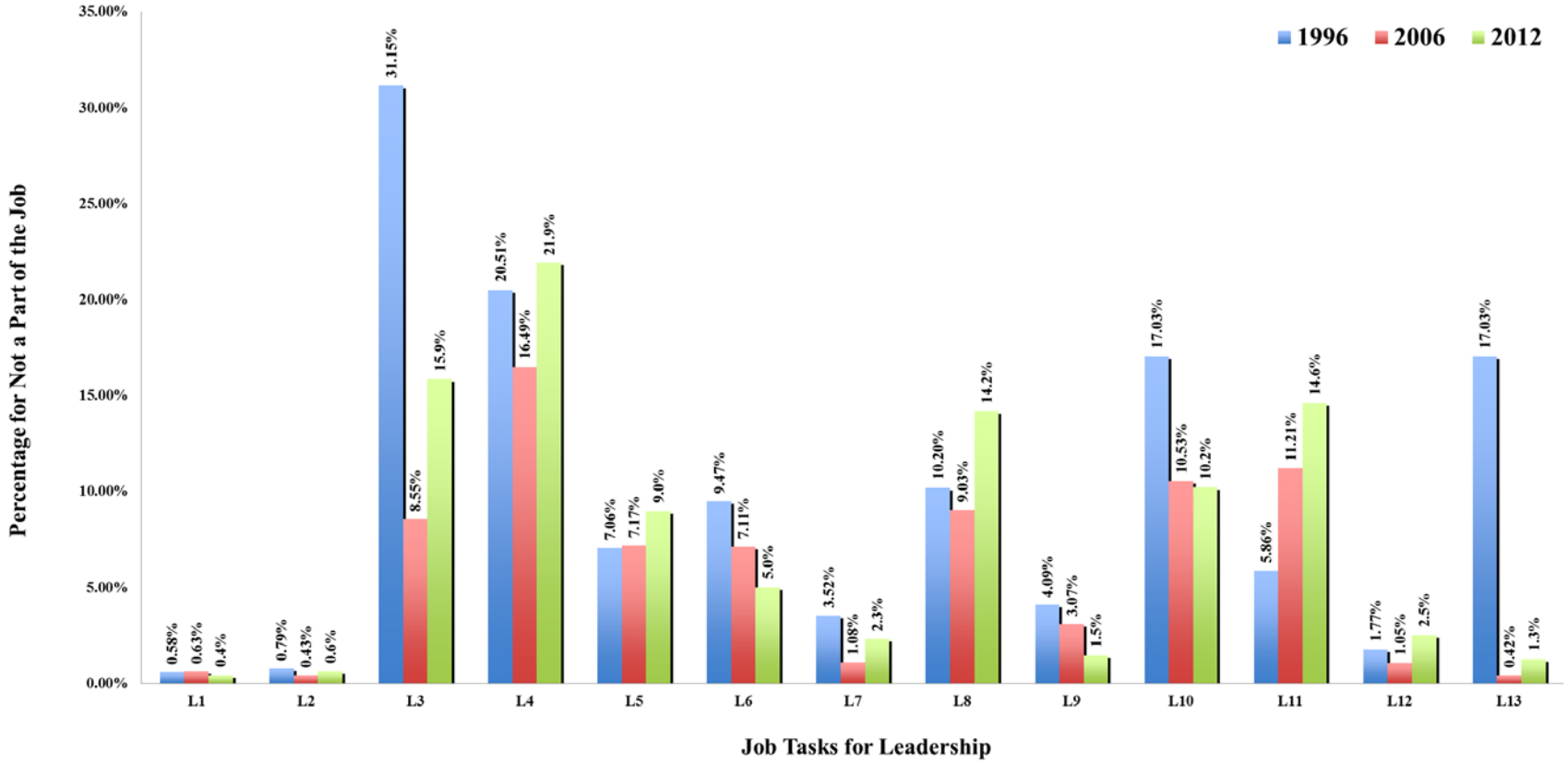


Figure 19 Longitudinal Comparison of *Not a Part of the Job* Response for Leadership

was small (Table 35). For the job task, "*Interpret and apply national, regional, state and local standards and guidelines to library media programs,"* SLMS in 2012 were less likely to feel that this task was not a part of their job than SLMS in 1996 or 2006 (Table 35; Figure 19). The effect size for this significance was small (Table 35). For the job task, "*Plan and participate in meetings to present the functions and services of the media center to parent and community organizations,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was small (Table 35). For the job task, "*Lead or participate in School Improvement Teams,"* SLMS in 1996 were less likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was small (Table 35). For the job task L13, "*Upgrade relevant professional skills (e.g., attend college courses and/ or seminars),"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 35; Figure 19). The effect size for this significance was medium (Table 35).

For the theme technology, five out of the 10 job tasks were significant (Table 36). For the job task, "*Instruct students and/ or teachers in the use of the public access catalog system,"* SLMS in 2006 were more likely to feel that this task was not a part of their job than SLMS in 1996 or 2012 (Table 36; Figure 20). The effect size for this significance was small (Table 36). For the job task, "*Maintain and support a computer network for the media center,"* SLMS in 1996 were less likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 36; Figure 20). The effect size for this significance was small (Table 36). For the job task, "*Provide adaptive*

technologies for students with special needs," SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 36; Figure 20). The effect size for this significance was medium (Table 36). For the job task, "*Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.),"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 36; Figure 20). The effect size for this significance was small (Table 36). For the job task, "*Assist teachers and students in the use of production techniques,"* SLMS in 1996 were more likely to feel that this task was not a part of their job than SLMS in 2006 or 2012 (Table 36; Figure 20). The effect size for this significance was small (Table 36).

The findings that SLMS feel increasingly responsible for technology tasks are congruent with the literature in the field. For example, *School Libraries Work!* (US National Commission on Libraries and Information Science, 2008) asserted that SLMS are leading the way for technology in schools and extend the *IP2* expectations to technology integration support in classrooms. SLMS often support the role of a technologist, technician and technology coordinator (Everhart, 2007; Perez, 2010; Jurkowski, 2010). Donham (2005) describes the SLMS's role as technology advocate, coordinator, manager, trainer, teacher, and policy maker. It is not surprising that SLMS identify with so many of the job tasks because there is an increasing emphasis on the SLMS role in technology.

In the study, *School Library Media Specialists' Perceptions of Practice and Importance of Roles Described in Information Power*, researcher Ann McCraken (2001)

analyzed responses from 505/ 1000 randomly assigned surveys to investigate SLMS perceptions of their role. McCraken (2001) noted that "The most frequent barriers to full implementation were lack of time, including lack of time to plan with teachers; lack of adequate funding; lack of interest and support of classroom teachers; use of a fixed schedule; lack of clerical staff; and too many schools or students to provide for." SLMS indicated factors that help them to expand their job tasks. SLMS (McCraken, 2001) cited supportive administrators and teachers; use of new technology; professional development opportunities; their own abilities and attitudes; adequate funding; and clerical assistance as factors that help to support their role. Even though this work (McCraken, 2001) is over a decade old, many of the barriers to the implementation of *IP2* and the strategies to reinforce positive perception and SLMS productivity are still relevant.

The finding that the SLMS position includes more tasks over the past 18 years supports the research by the school library media impact studies (Achterman, 2008; Baughman, 2000; Baumbach, 2003; Farmer, 2006; Baxter & Walker, 2004; Burgin & Bracy, 2003; Klinger, 2009; Lance et al., 2010; Lance, Francis & Lietzau, 2010; Lance, Rodney & Hamilton-Pennell, 2000, 2001, 2002, 2005; Lance, Rodney & Russell, 2007; Lance, Rodney & Schwarz, 2009; Lance, Welborn & Hamilton-Pennell, 2010; Ontario Library Association, 2006; Quantitative Resources, LLC, et al, 2003; Rodney, Lance & Hamilton-Pennell, 2002, 2003; Ross, 2005; Small, Shanahan & Stasak, 2010; Smith, 2001, 2006; Todd, Gordon & Lu, 2010; Todd & Kuhlthau, 2003). In each of these studies the SLMS roles and responsibilities have a positive impact on student achievement and demonstrate the wide range of job tasks completed by SLMS.

Table 36: Longitudinal Comparisons for *Not a Part of the Job* Task Technology

Theme #	Job Tasks: Technology	1996 (%)	2006 (%)	2012 (%)	df	χ^2 Value	p value	ES
T1	Use online services to retrieve information (e.g., in doing research).	2.73%	2.61%	1.46%	2	2.20	0.33	0.04
T2	Instruct students and/ or teachers in the use of the public access catalog system.	1.96%	6.10%	1.88%	2	17.92	**0.0001**	**0.11**
T3	Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.).	12.35%	10.69%	7.93%	2	5.27	0.07	0.06
T4	Maintain and support a computer network for the media center.	8.82%	19.57%	19.42%	2	28.40	**<0.0001**	**0.14**
T5	Provide adaptive technologies for students with special needs.	24.36%	2.14%	1.67%	2	189.59	**<0.0001**	**0.36**
T6	Instruct teachers concerning ways to incorporate technology into the classroom curricula.	5.85%	7.05%	4.80%	2	2.16	0.34	0.04
T7	Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.).	40.23%	24.09%	26.51%	2	35.50	**<0.0001**	**0.16**
T8	Assist teachers and students in the use of production techniques.	32.28%	0.86%	0.42%	2	319.67	**<0.0001**	**0.47**
T9	Keep informed about new technologies.	36.93%	33.12%	32.15%	2	2.79	0.25	0.04
T10	Provide formal instruction in information skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.).	0.59%	0.21%	0.42%	2	0.87	0.65	0.02

Note: Red numbers indicate significance. Cramer's V value was used to determine effect sizes for chi-square analysis. Effect sizes are: small =.10, medium =.30, large =.50 (Cohen, 1988).

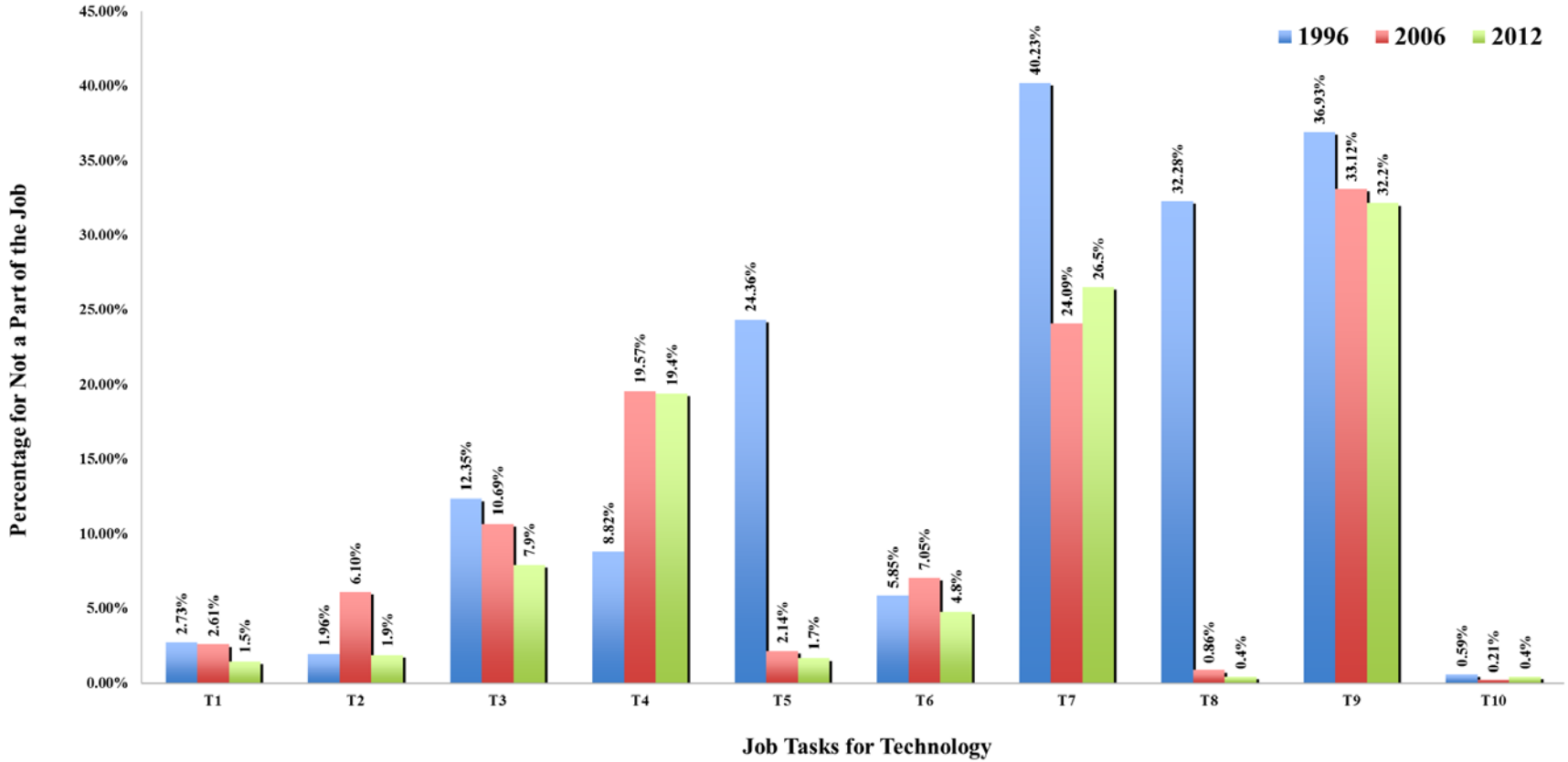


Figure 20 Longitudinal Comparison of Not a Part Response for Technology

Research Question 2: Are there significant differences between AC and TC SLMS level of *familiarity with IP2*?

Three variables were used to determine the level of *familiarity with IP2*: *familiarity with IP2* as measured by the amount of times that *IP2* was read; the number of *in-services attended on IP2*; and the number of *attempts to implement IP2*. Overall, the results of this study point to several differences in AC and TC SLMS level of *familiarity with IP2*. Chi-square tests revealed that there were large significant relationships between *method of certification* (AC and TC) and *familiarity with IP2, attended in-services on IP2,* and *attempts to implement IP2*. AC SLMS were more likely to be less familiar with *IP2,* attend fewer in-services on *IP2* and make fewer *attempts to implement IP2* than their TC counterparts. These results are reflective of the perspective of professionals in the field (Baumbach, 2003; Pace, 2007; FAME 2008 Legislative Background; NCAC, 2011) who theorized that the 2001 change in certification legislation would create measurable differences in the SLMS exposure to the *IP2* standards.

In this study, the standards outlined in *IP2* were described as an innovation. Rogers (2005) asserted that a novel unit or idea shared by a community over time leads to social change. The adopter strategies and diffusion on innovation stage are concepts used to theoretically frame SLMS responses. According to Rogers (2005), a population can be separated into five groups, based on the likelihood of each group to adopt an innovation. The adopter categories are distributed with the following proportions: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%) and laggards (16%).

Familiarity with IP2

As described in Chapter Three, the adopter categories and diffusion of innovation stages were aligned with the responses for questions related to *familiarity with IP2* (Figure 21). As it related to *familiarity with IP2*, chi square goodness of fit tests revealed that the samples of SLMS were not reflective of the adopter category trends anticipated by the theoretical diffusion of innovation framework for both AC ($\chi^2 = 164.67$; DF = 4; p = <0.001) and TC ($\chi^2 = 2378.91$; DF = 4; p = <0.001). In addition, a chi square test revealed a significant difference ($p < 0.5$) between *method of certification* and diffusion of innovation stages ($\chi^2 = 96.96$; DF = 4; p = <0.001). The effect size for this difference (ES = 0.41) was between medium and large. Alternatively certified SLMS were more likely to be in the adopter category of laggards (not familiar) and late majority (somewhat familiar) whereas TC SLMS were more likely to be in the adopter categories of innovators (extremely familiar) and early adopters (very familiar) (Figure 21).

It is not surprising that those individuals who went through traditional certification routes would be the most familiar with *IP2* because it is one the seminal texts in NCATE approved library information science degree programs in Florida (Pace, 2007; Jurkowski, 2010). There were only 5% of TC SLMS who were laggards; whereas, 23% of AC SLMS were considered laggards (Figure 21). The large percentage of AC SLMS who have never heard of *IP2* is disconcerting. School library impact studies have evidenced that there is a direct correlation between student achievement and a certified SLMS in the school. If 23% of AC SLMS practitioners have never heard of *IP2*, what does it mean for the opportunity to positively impact student achievement? What

guidelines and standards are these individuals using? These results speak to a real need for professional development on the basic standards and expectations of SLMS.

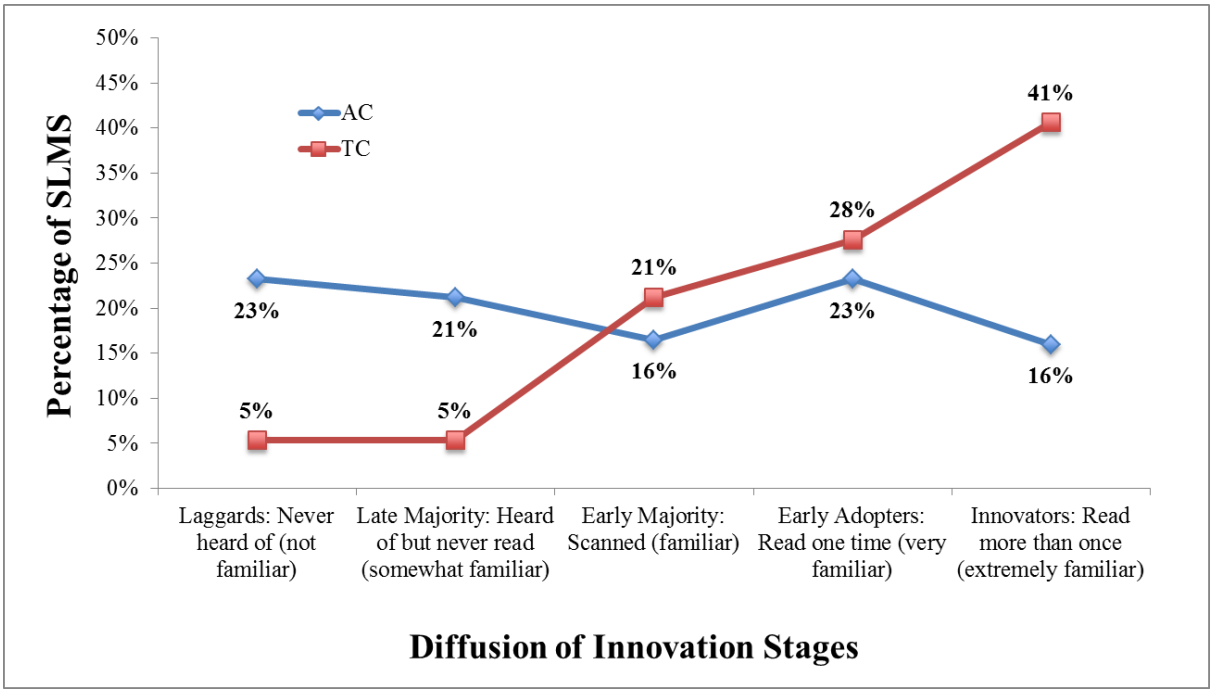


Figure 21 Diffusion of Innovation Stages Aligned with *Familiarity with IP2*

Attempts to Implement IP2

The adopter categories and diffusion of innovation stages were also aligned with the responses for questions related to *attempts to implement IP2* (Figure 22). A chi square goodness of fit tests revealed that the samples of SLMS were not reflective of the adopter category trends anticipated by the theoretical diffusion of innovation framework for both AC (χ^2 = 319.86; DF = 4; p = <0.001) and TC (χ^2 = 1874.24; DF = 4; p = <0.001) as it related to *attempts to implement IP2*. In addition, a chi square test revealed a significant difference (p < 0.5) between *method of certification* and diffusion of innovation stages (χ^2 = 73.71; DF = 4; p = <0.001) for *attempts to implement IP2*. The effect size for this difference (ES = 0.36) was between medium and large. Alternatively certified SLMS were more likely to be in the adopter category of laggards (no attempts)

whereas TC SLMS were more likely to be in the adopter categories of innovators (made continuous attempts) (Figure 22).

The greatest differences between AC and TC *attempts to implement IP2* were illustrated in the innovator and laggard categories. In the innovator category there were 16% AC and 37% TC SLMS (Figure 22). This variable is another illustration of the disparity of knowledge between AC and TC SLMS as it relates to the professional standards. Of AC SLMS 47% were in the laggard group while only 16% of TC SLMS were in the laggard group. This means that latter groups are not doing best practice, research based implementation of standards. It also means that there is inconsistency throughout the state because there is not a shared vision about the roles and responsibilities of SLMS.

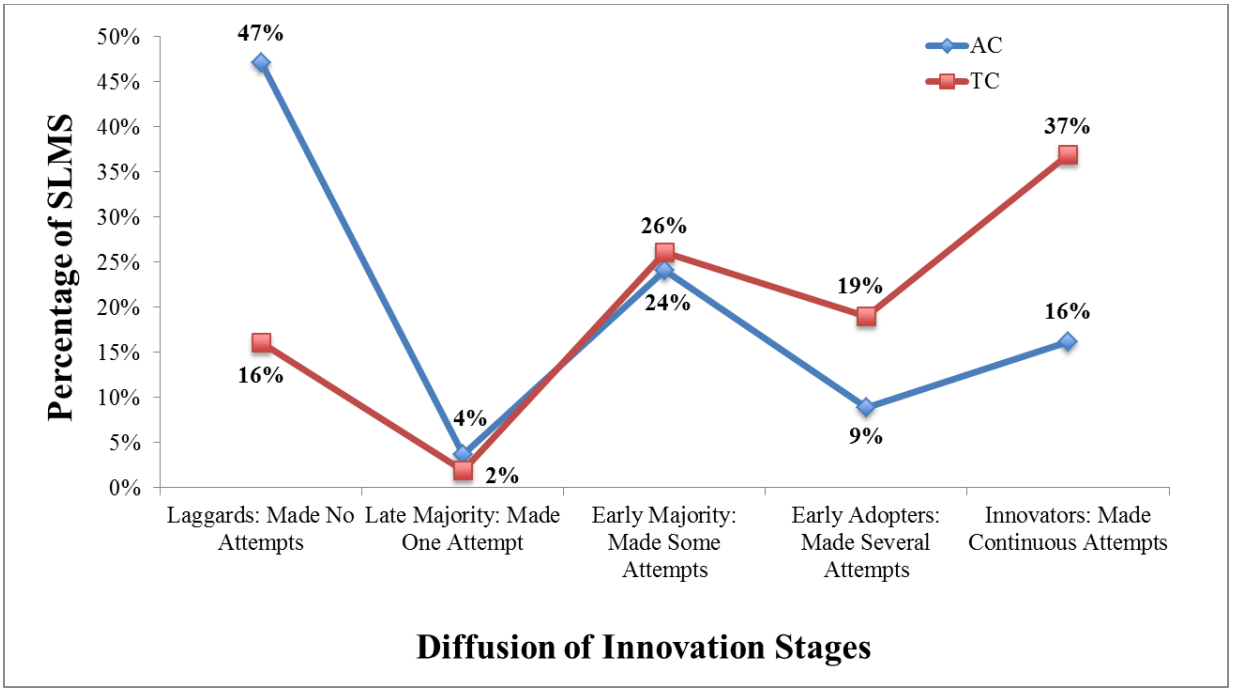


Figure 22 Diffusion of Innovation Stages Aligned with *Attempts to Implement IP2*

Attended in-services on IP2

Lastly, the adopter categories and diffusion of innovation stages were also aligned with the responses for questions related to *attended in-services on IP2* (Figure 23). A chi square goodness of fit tests revealed that the samples of SLMS were not reflective of the adopter category trends anticipated by the theoretical diffusion of innovation framework for both AC ($\chi^2 = 392.56$; DF = 4; p = <0.001) and TC ($\chi^2 = 350.09$; DF = 4; p = <0.001) as it related to *attended in-services on IP2*. In addition, a chi square test revealed a significant difference ($p < 0.5$) between *method of certification* and diffusion of innovation stages ($\chi^2 = 47.89$; DF = 4; p = <0.001) for *attended in-services on IP2*. The effect size for this difference (ES = 0.29) was between small and medium. Alternatively certified SLMS were more likely to be in the adopter category of laggards (none) whereas TC SLMS were more likely to be in the adopter categories of innovators (four or more) (Figure 23).

With the variable *attended in-services on IP2*, only 14% of TC SLMS were innovators whereas only four percent of AC SLMS were considered innovators. An overwhelming 65% of AC SLMS had never *attended in-services on IP2*. In contrast, 37% of TC SLMS had never *attended in-services on IP2*. This indicates an impact on in-services and *attempts to implement IP2*. State supervisors and district leaders should respond for this high need of professional development for all SLMS but especially for AC SLMS. In addition to explicit instruction on the standards described in *IP2*, professional development should make connections between the standards of *IP2* with the skill being taught. Shared knowledge of roles, standards and expectations are critical

for professional success. SLMS cannot effectively perform job tasks if they do not know the framework that guides their roles.

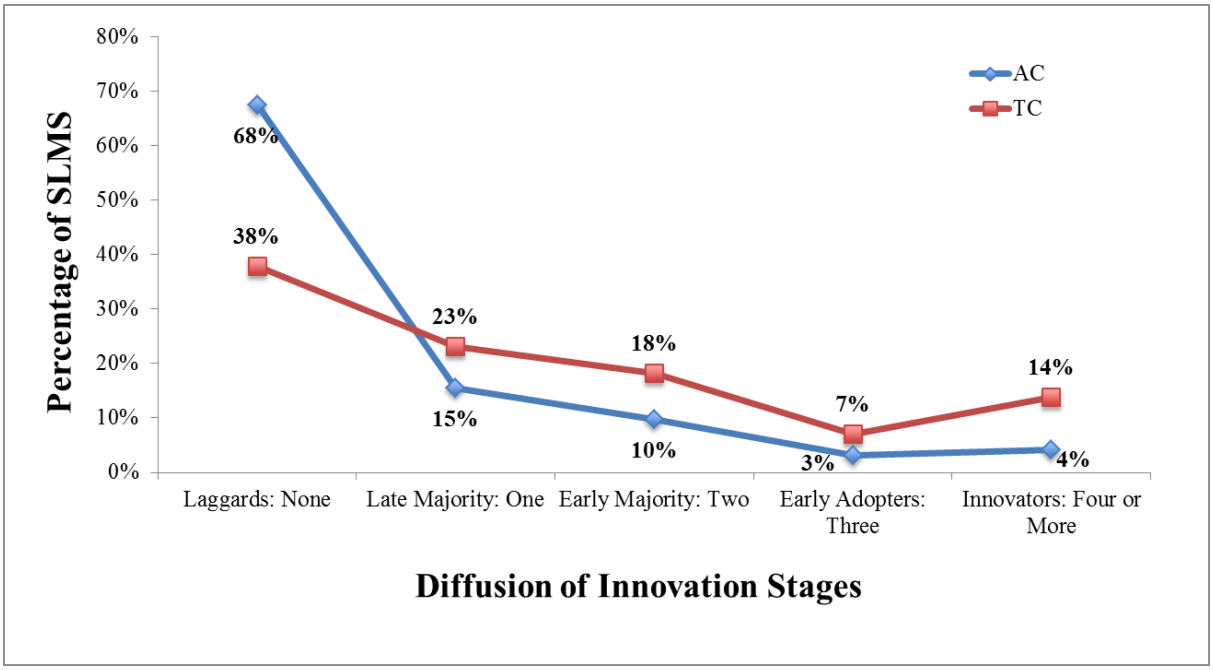


Figure 23 Diffusion of Innovation Stages Aligned with *Attended In-Services on IP2*

Conclusions

Pace (2006) reported that there was no difference between the variables *method of certification* and *familiarity with IP2* and urged that more research be done on this phenomenon. This study found significance differences between *method of certification* and the variables *familiarity with IP2*, *attended in-services on IP2*, and *attempts to implement IP2*. For all three variables, the largest percent difference between AC and TC SLMS were with the adaptor categories laggards and innovators. The largest percent difference for laggards was found in the variable *attempts to implement IP2* whereas the largest percent difference for innovators was found in the variable *familiarity with IP2.* These findings suggest that AC SLMS could benefit from increased in-services on *IP2* that may result in greater familiarity and *attempts to implement IP2* as demonstrated by

their TC counterparts. Findings also indicate that TC SLMS could benefit from additional in-services on *IP2*. *A Case Study of One District's Implementation of Information Power* (Latrobe, 2001) describes how a district in the southwestern United States institutionalized the implementation of *IP2*. Aligned with a shared vision, the stakeholders measured success with the survey instrument, *"Assessing the School Library Media Program and Its Partnerships.*" Of the district's 781 teachers, 523 (67%) completed the assessment instrument (Latrobe, 2001). Teachers' responses indicated consistently positive correlations between the learning community's involvement in the library media program and positive assessments of the program. Some of the effective strategies used by this district, if employed in Florida school districts, may decrease the gaps between AC and TC SLMS in *familiarity with IP2* and *attempts to implement IP2*. Latrobe (2001) describes the following strategies to institutionally implement *IP2*:

- Analysis of *IP2* principles and implications of the new guidelines
- Documentation and sharing the information literacy standards integration across the district
- SLMS meetings with principals and district leaders
- SLMS developed and implemented *IP2* in-service workshop
- Data collection and analysis
- Introduction of information literacy standards and basic principles of *IP2* to the district's teachers.

These strategies were successfully employed in the two years after the publication of *IP2* and could be similarly effective today. Florida school districts with high percentages of

SLMS that lack *familiarity with IP2* and make no *attempts to implement IP2* should consider a similar implementation strategy.

Research Question 3: What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?

Cross-Case Analysis and Findings

In Chapter Four, the case studies were used to extend job task analysis results, describe SLMS perceptions of collaboration, leadership and technology and answer the research question "What are some recommendations for professional development for SLMS, based on perceptions of SLMS currently in the field?" Observations, professional artifacts and a researcher reflective blog are used to triangulate interview data. In this cross-case analysis (Stake, 2003), comparison, contrasts and themes are discussed and include the following elements:

- The professional route taken by each participant as illustrated through discussion of her inspiration, academic pathway and professional progress.
- SLMS overall philosophy.
- *Familiarity with IP2*.
- SLMS Diffusion of Innovation Adopter Categories and Stages
- Perceptions of AC and TC SLMS.
- Perceptions of collaboration, leadership and technology.
- Explicit recommendations for professional development for AC and TC SLMS.

All of the participants site mentorship as one of the primary inspirations for becoming a SLMS. Three participants had a prior profession and each has a creative

special interest. See Table 37 for an illustration of the SLMS career path. In addition to sharing their path to the SLMS career, each SLMS has a clear and specific philosophy about the most important part of their job (Table 38).

Table 37: The Path to the Librarianship

The Path to the Librarianship				
Title	**Pseudonym**	**Inspiration**	**Professions Prior**	**Special Interests**
The Teacher Librarian	Melody Alfred, TC SLMS	Mentorship by Librarian, Music Library Internship in College	Recording Studio, Opera Singer	Opera Singer
The Development Librarian	Nancy Grant, TC SLMS	Grandfather Educator, Library Internship in HS	Library Assistant	History Buff, Genealogy Specialist
The Professional Librarian	Lou Wright, AC SLMS	Aunt Educator, Opportunity to Fuse Skills	TV Writer, Apple Educator, Teacher	Blues Singer, Writer
The Events Librarian	Mary Methods, AC SLMS	Character Education, Mentorship by Librarian	Children's Minister, Teacher	Event Planner

Table 38: SLMS Philosophy

Melody Alfred, TC SLMS • The Teacher Librarian • Literacy: Teaching children to be information literate.	**Mary Methods, AC SLMS** • The Events Librarian • Meet the needs of the learning community.
Nancy Grant, TC SLMS • The Development Librarian • Foster love of learning by reading with kids.	**Lou Wright, AC SLMS** • The Professional Librarian • Rapport with students.

In addition to a range of philosophies about the librarianship, the four participants had a range of experiences and perceptions with *IP2*. In Tables 3, 4 and 5, Rogers'

(2003) Diffusion of Innovation theory is used to classify and describe the familiarity of each SLMS participants' *familiarity with IP2*. Both TC SLMS were considered Innovators and in the confirmation stages of adopting *IP2*. Nancy Grant was the most familiar with *IP2* noting that she keeps a copy on her desk at all times and refers to it in her daily practice. She said that *IP2* is "that validation to say - it is a consensus, that these are the things that we need to be doing." One of the AC SLMS, Lou Wright was categorized as an Early Adopter in the Implementation stages of the diffusion scale. She said, "I got the book *Information Power*. I read it in two days and took my test. Two days before I took the test, I read that book. So I was in the mode of what the questions would ask me. That's all the prep I did for that test." Since then, she has consistently used *IP2* in her preparation and practice. In contrast, Mary Methods, AC SLMS had very little *familiarity with IP2*, went to few in-services and made limited attempts to explicitly implement *IP2*. Table 39 illustrates the categories of each participant using the theoretical framework, diffusion of innovation. Participants are categorized by their *familiarity with IP2*.

In addition to understanding the characteristics of each participant and her recommendations for professional development, it was important to identify their perceptions of alternative certification. Nancy Grant and Lou Wright felt that the two groups were often indistinguishable. Nancy Grant asserted assumptions could not be made based on a SLMS pathway to accreditation because that does not account for their prior knowledge. Ms. Grant also noted that it is difficult to distinguish the type of certification earned based on her interactions with other SLMS. Lou Wright echoed this sentiment when she stated, "As far as when we're getting all together and talking, we

have the same respect for each other. There's not, 'Oh, well, you're an AC.' Nobody knows how they got there." In contrast, Mary Methods and Melody Alfred had strong, yet opposing, opinions about AC vs. TC SLMS.

Table 39: SLMS *Familiarity with IP2* - Diffusion of Innovation Adopter Categories and Stages

Title	The Teacher Librarian Melody Alfred, TC SLMS	The Development Librarian Nancy Grant, TC SLMS	The Professional Librarian Lou Wright, AC SLMS	The Events Librarian Mary Methods, AC SLMS
Familiarity with IP2	Decision, Early Majority	Innovator, Confirmation	Early Adopter, Implementation	Late Majority, Persuasion
In-Services Attended	Innovator, Confirmation		Early Adopter, Implementation	Late Majority, Persuasion
Attempts to Implement IP2	Innovator, Confirmation		Early Adopter, Implementation,	Early Majority, Decision

Mary Methods did not think that alternative certification was good for the SLMS professional. When describing the difference between AC and TC SLMS, she shared an analogy between the educational and medical profession. She stated,

> *I think this is where the flaw lies . . . you know . . . um it is like saying . . . let me see if I could think of this . . . the doctor's office and you have somebody that is able to pass a biology test and you have somebody that spent the 6 years in med school. I mean, this is not quite the same, but it is similar. You are going to have*

somebody that has - Say you go to spent the 6 years working, taken the coursework, even though not all of it applies, you know you studied obstetrics but you're not going to be an obstetrician. You still have this discipline and this understanding of the science and the continual growth of the field and the newness and keeping up with journals and that kind of thing whereas an alternatively certified person probably doesn't. If they are not motivated to take the coursework and they think just taking a test is all that is required, they are going to stop there.

Ms. Alfred stated that she is dubious about the motivating factors that contribute to the decision to become alternatively certified:

Now I would hate to be an alternatively accredited person because this is what I learned in school. This is my understanding. This is how I grew up as a librarian is based on these premises and I believe in them. It is like being in a religion. I believe in them. So maybe the alternatively accredited depending on what their reason for becoming a librarian is are more likely to be there because they want a break from the classroom. I guarantee it. They won't tell you that but I guarantee it.

Mary Methods has a completely differing opinion. According to Ms. Methods, neither a master's nor certification is necessary to succeed as a SLMS. She said,

I would not mandate that they had to have their master's first. I think some strong media specialists have come from the teaching, coming up through the ranks. Potentially if folks worked on their master's, that doesn't assure them of a job or does not assure them that they would be good.

I am coming at this from the perspective of similar to my husband, my husband is a United Methodist Pastor, and I am explaining the situation with the Methodist church and how that relates to what I am talking about. We are finding that (he is on the committee that choses United Methodist pastors.) There was a seminary called Galahan in a county in Florida that all these second career folks are going to. They are not working through the system first to see if they have been called. They are just going directly to get their Masters of Divinity, spending thousands upon thousands upon thousands of dollars getting their master's. Then they are coming back to the church and the church is saying, "No, you are not passing our standards. Nope." They have just spent thousands upon thousands of dollars to get a master's degree they can't do anything with because the church did not feel that they had the gifts and the graces to do the job. I see a similarity with that with the library media specialists because if you do not have the gifts and graces that are intangible to do the job, you have just spent thousands.

Now, if you're willing to do law library, other versions, but if your goal is to really stay in the school system, you have to have . . . there is a specific skillset. You need to have a personality to be successful within the schools. Some counties push that you have to have your masters, so you have teachers who are getting their master's degree. There are kids, young people coming out right out of college wanting to do school librarian stuff, do they have the gifts and the graces to manage the educational needs and the interpersonal needs of the school? And

on top of that when you are in the classroom the workload of being a classroom teacher is much different than being a media specialist.

Ms. Methods asserted that many AC SLMS are doing exemplary work. She said,

Most of my friends that are new that have come on are almost finished with their master's degree so they doing exactly what was asked of them. So, I like that because it doesn't close the door to those that are not master's certified. There are some wonderful teachers that have exactly the route I have. Jessica Stable, I don't know if you are bringing in any others in the county. She is incredible. She is wonderful. She is an elementary (school SLMS) and she kind of did the same route, a little faster than I did. I don't know how she did it because she has got as many kids as I do. She did the same route where she was a classroom teacher, got media certified, her job and then got her master's degree and she is going gangbusters over at Bambee Bay.

While Ms. Melody and Ms. Alfred may have differing opinions on alternative certification, they both agree that the SLMS should at least have certification in another area. Ms. Methods said, "*Some schools are putting in paraprofessional to take this job, not even a teacher, not even a fully certified person. To protect our profession, it has to be someone that can do the job really well."*

All of the SLMS participants agree that it is important that the job be done well.

Another point of agreement among all four SLMS is the importance of leadership. As it relates to their own leadership, each is an innovator and in the confirmation stage of leadership. Each SLMS is also on the higher stages of diffusion of the standards outlined in *IP2* as it relates to collaboration and technology. Table 40 illustrates the diffusion of

innovation adopter categories and stages as it relates to perceptions of collaboration, leadership and technology.

Table 40: SLMS Diffusion of Innovation Adopter Categories and Stages

Title	The Teacher Librarian Melody Alfred, TC SLMS	The Development Librarian Nancy Grant, TC SLMS	The Professional Librarian Lou Wright, AC SLMS	The Events Librarian Mary Methods, AC SLMS
Collaboration	Innovator, Confirmation	Innovator, Confirmation	Innovator, Confirmation	Early Adopter, Implementation
Leadership	Innovator, Confirmation			
Technology	Innovator, Confirmation	Early Adopter, Implementation	Innovator, Confirmation	Early Majority, Decision

In the next section of the cross-case analysis, the contrasting and aligned perceptions of all participants are discussed as it relates to collaboration, leadership and technology. This analysis provides the framework for their responses to the research question on recommendations for professional development. For example, both Ms. Wright and Ms. Alfred expressed opinions about collaboration that were not asked directly but are insightful to the themes of the study. Ms. Wright notes that one of the keys to collaboration is to have expertise in areas that are both complementary and unique. She noted that the reading endorsement is one of the most important tools for connecting with the needs of classroom teachers. Ms. Wright increases opportunities for

collaboration by identifying the specific needs of teachers through observation, discussion and online surveys.

> *But, they may lack in something like, they may lack in something. Instead of attaining resources, another thing that came up was they didn't know how to use certain technologies that I knew how to use. So, yes, they can get the book that they need or the video that they need, but they wouldn't know how to use a poster printer, the dye cut, and the iPod. I'm just thinking about this last current week with my first grade class, with my first grade teachers. They didn't know about . . . they didn't know about certain applications that would help them, that sort of thing.*

Ms. Alfred reinforces Ms. Wright's sentiment. She said,

> *The kindergarten teachers are the best ones for telling you where they are at with things and they are the ones that use the library the most in terms of coming in themselves and asking me for things. Because they have to be ultra-creative because they are being asked to teach kids things that are way beyond them (students).*

Ms. Wright also notes that one of the challenges of collaboration is staying informed of the needs of teachers:

> *If the librarian is in place and they say I can do this for you, they (teachers) see an opportunity and they are in the loop. That is another thing. I am out of the loop. I have to find out what is going on before I can say, "Here is how I can help you." I am not in the PLC meetings, which are grade level oriented and there while I am teaching the grade.*

In the area of leadership, one of the major themes that emerged across space is the importance of the principal to the success of the school library program. Ms. Methods reflected her positive experiences with all of the principals with whom she has worked. She noted that the needs of the principals are paramount. She said, "The principal is the one person that you have to drop everything, regardless. When they need you, drop it and do it right then." All of the SLMS note the negative impact of a high principal turnover rate. Table 41 provides quotes from SLMS articulating the number of principals each has had in recent years.

Table 41: High Principal Turnover Rate

Title	The Teacher Librarian Melody Alfred, TC SLMS	The Development Librarian Nancy Grant, TC SLMS	The Professional Librarian Lou Wright, AC SLMS	The Events Librarian Mary Methods, AC SLMS
Quotes	*Two principals in the last two years.*	*Principal is new to the school.*	*I've had three principals in three years.*	*Brand new principal, this is my first principal here we have had three here in four years.*

Principal changes often mean a change in curriculum, leadership priorities and funding opportunities. Ms. Alfred is the most vocal of the participants about principal interactions with the school library media program and SLMS. One of Ms. Alfred's concerns is the lack of knowledge of the SLMS role:

> *The job is decided by somebody who does not understand libraries and how they work and that is your principal . . . there is the problem. My principal never*

stepped into my library unless he needed something last year. He was a brand new principal, first year principal.

He did not observe me ever until I finally said, "You know, you are required to come and watch what I do. And the last week of school, when I am in the mode of - Be sure you go to the library this summer, here is what you can do there and I am not teaching information skills, I am just wrapping things up. Get your dang books back in. He finally comes to watch what I have to do to I trump up a lesson or I find something, just because I know he is going to be there for that 20 minutes. I got the point where I almost said; I am going to give you $25 if you'll show up.

So then we have our final conversation, which is required by the state in this new appraisal paradigm. I am supposed to be observed. I am supposed to have a pre-observation discussion – never happened. He observed me. We had a post-observation discussion – that never happened except for kind of casually in the hall. So there is where your problem is. And here is the scary thing; my principal was a librarian for a while. And as he said "I couldn't really run the library, I was too busy doing technology." and I said "Hold on, am I chopped liver? I am doing both for you. You know, we have a friendly relationship but I said, "I am doing both. It can be done. I said, "This is the problem, he was working his way up the ladder. Fast track. He is 30. He is a principal or maybe he is a little older. I don't know but like you were saying "They are pushing the talent up," and he was working his way. He was in the classroom, I bet maybe three years. No offense but 3-4 years does not qualify I my opinion as . . . and um

he was working his way up and he had become the technology coordinator but he was the librarian because that was the job that was defined as a position, not technology coordinator. You know, that is the inherent problem. We have expectations that are based on the experience of the principal that hires us.

In contrast, Ms. Wright said,

I mean, some librarians do have it harder than me though and they are the tech specialists. I think that's just really hard to do is be a tech specialist and a librarian at the same time. That needs to be disconnected from this, or they need a supplement of more income from . . . because they're both. That's two jobs in one. And I'm sitting here doing one and I'm getting paid the same as somebody who does two. That is not right. I could never compete with like the Othello Beach librarian or any librarian that's tech and library together. I am very grateful that I don't have to do that.

Ms. Melody shared another anecdote describing how she shared her vision of the SLMS with her principal. She said,

And so later on, a couple weeks, we had an encounter in the library and he needed some help with some computers and so I was trying to find what he needed and I said, "Listen, I want to talk to you about something." I said, "You can decide what I do here but you need to know what I do here before you make that decision." I said, "I am not just somebody that just reads stories to kids. I think you'll find that out if you pay attention." You know you have to be frank with these people and I am old enough to say that I don't care what I say now. Before he came though, we had the principal from hell. She has no clue and she

is now head of professional development in the county. She was busy elevating herself rather than paying attention. So that, where are we with that?

Ms. Melody noted that the apathy of principals to the needs of the school library is more of a disadvantage than an advantage.

We say many times "Maybe it is a good thing that principals are not paying attention." But then in the same vein, we say, "They are not paying attention; we are going to lose our jobs." We had to fight for our jobs. Elementary school librarians almost lost their jobs two years ago and after midnight, they voted to keep us mainly because we kept coming to the board and holding up stacks of papers and saying, "We are fixing the computers, who is going to do that when we are gone." It had nothing to do with . . . I mean I told stories about kids in the library and how I felt I was having an impact but bottom line we were saved because we were covering the bases technology division for our county.

In addition to critiquing the principals, Ms. Melody evaluates the school board, district supervisors, and the state leadership (Table 42).

With the role and importance of the SLMS clearly articulated, it was important to identify the themes that emerged when SLSM were asked their recommendations for professional development content (Table 43). SLMS also had recommendations for how professional development should be delivered (Table 44).

Table 42: Participant Melody Alfred Critique on Tiers of Leadership

School Board	District Supervisors	State Supervisor
Our middle school librarians really should be nurturing of resource and research skills in students. But now they are, there are 20 of them and I think all but 6 of them now are teaching classes, two classes a day. If they demand their planning period, which they rightfully have, that means that the library is probably only open 50% of the time. Now, the wisdom of the school board decided that they would put clerks or volunteers. Well those clerks are not paid for and the volunteers are not materializing so many of the libraries are closed and the circulation has gone down hugely. I mean as much as 80,000 books a year since this staffing, 80,000 books a year. You can't prove that those books were ever read but that is still a notable drop in circulation. So this has been happening for the last three years and we have been fighting for that, to get our librarians back to full time so they can do what they are meant to do.	*We had one in an adjacent county and her name was Hua Mulan and so she was kind of managing us, the few of us that were trying to finish up our degrees and, we would meet as a mentor. She was giving us advice on how to make a case for what we did. You know, keep track of what we taught the kids and she said now I need you to go find a librarian that you can shadow. When I told her I could not find anyone that was teaching, .she couldn't believe it. She was not even aware that her school librarians weren't teaching. They were just . . . they might be reading stories to kids, kids come in, check out and left and that was what their duties were and that is because that is what the principal expected. Let me tell you, my supervisor, we nominated her for the state professional organization award. The same man that bullied me bullied her. She is stepping back. She is not advocating. She is not our advocate at all. She is afraid to be active in any of this.*	*So Lisa does not know what I am doing here at Dolphin Elementary. Lisa does not know that there are 20 kids at my school that routinely trash a classroom. Lisa does not know that here are 10 new teachers at my school that have no idea how to access FCAT explorer. Lisa does not know that there are probably 15 teachers that probably do not know how to turn on their computer or renew their password or sign up for self-service password. Lisa does not know that to see all of my kids I have to double up classes and see two classes at a time to get them in. Lisa does not know that my principal has no idea of about IP2, no idea of what a librarian can do. She does not know that the head of a major department at our county doesn't like my supervisor . . . is very unhappy and threatened me at a school board meeting. Took me aside and said "If you know what's good for you, you will not talk about the middle school thing this time." He said that. She doesn't know that is going on.*

Table 43: Recommendations for Professional Development for SLMS Content

Collaboration	• Best Practices developed by other SLMS • Standards (i.e. CORE Curriculum)
Leadership	• Mentorship How-to • School and County Protocols • Evaluation Tools & Methods
Technology	• Relevant & Accessible Technologies • School and District Software (i.e. Student Information System, Library Databases)

Table 44: Recommendations for Professional Development Methods

Title	**The Teacher Librarian** **Melody Alfred, TC SLMS**	**The Development Librarian** **Nancy Grant, TC SLMS**	**The Professional Librarian** **Lou Wright, AC SLMS**	**The Events Librarian** **Mary Methods, AC SLMS**
Unique	Direct Instruction, Blended Learning	Hands-on Instruction	Include Teambuilding exercises	Library, School and District Protocols
Common	SLMS Designed and Implemented Professional Development Formal and Informal SLMS Sharing Individualized and Differentiated Opportunities to Opt Out based on prior experiences and expertise Relevant & Accessible (Especially with technology) Mentorship			

Conclusion

The results of this study found that there were no significant differences between AC and TC overall perceptions of collaboration, leadership and technology as indicated by their saliency scores. This indicates that both AC and TC SLMS have similar perceptions of the importance of job tasks. It is most likely that school and district leadership have articulated the overall roles and responsibilities to SLMS. Within

collaboration and technology, there were two tasks that had significant differences in AC and TC responses. TC SLMS were more likely to "*Assist students and/or teachers with general references services (e.g., answer reference questions).*" in the theme of collaboration and "*Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes*" in the theme of technology. Both tasks should be taught in explicit and embedded ways to AC SLMS and reinforced among TC SLMS.

TC SLMS were also significantly more familiar with *IP2,* made more *attempts to implement IP2* and attended more in-services on *IP2*. Even though TC SLMS were more familiar with *IP2,* results reveal that many TC SLMS must increase their knowledge of the standards outlined for SLMS. It is imperative that SLMS have a shared understanding of their roles and responsibilities if they are to have a positive impact on student achievement and student growth. State, district and school leaders must prioritize this diffusion of innovation. School impact media studies all indicate that a well-staffed school library media program that includes a certified SLMS has a positive impact on student achievement. Statewide studies over time continue to evidence the need for SLMS to be certified and supported (Achterman, 2008; Baughman, 2000; Baumbach, 2003; Farmer, 2006; Baxter & Walker, 2004; Burgin & Bracy, 2003; Klinger, 2009; Lance et al., 2010; Lance, Francis & Lietzau, 2010; Lance, Rodney & Hamilton-Pennell, 2000, 2001, 2002, 2005; Lance, Rodney & Russell, 2007; Lance, Rodney & Schwarz, 2009; Lance, Welborn & Hamilton-Pennell, 2010; Ontario Library Association, 2006; Quantitative Resources, LLC, et al, 2003; Rodney, Lance & Hamilton-Pennell, 2002, 2003; Ross, 2005; Small, Shanahan & Stasak, 2010; Smith, 2001, 2006; Todd, Gordon &

Lu, 2010; Todd & Kuhlthau, 2003). Leaders must ensure that the SLMS understands the standards and strategies to improve student achievement and student growth.

When interview participants were asked about their recommendations for professional development as it relates to collaboration, they advocated for best practices and content developed by other SLMS. SLMS recommendations for leadership were the topics: mentorship how-to; school and county protocols; and evaluation tools and methods. Finally as it relates to technology, SLMS wanted to learn about relevant and accessible technologies in addition to school and district software (i.e. Student Information System, Library Databases Standards CORE Curriculum). Participating SLMS also indicated that the following professional development methods are preferred: SLMS designed and implemented professional development; formal and informal SLMS sharing; individualized and differentiated opportunities; options to opt-out based on prior experiences and expertise; relevant and accessible trainings (especially with technology); and mentorship.

School, district and state leaders in Florida can use the findings of the study to improve professional development, Initial Teacher Preparations (ITPs), District Alternative Preparation Programs (DACPs), and Educator Preparation Institutes (EPIs). These data are necessary to identify professional development focus areas for both AC and TC SLMS.

Future Research

This study builds on the school library media studies by PDRI (1996), Pace (2007) and school library impact studies (Achterman, 2008; Baughman, 2000; Baumbach, 2003; Farmer, 2006; Baxter & Walker, 2004; Burgin & Bracy, 2003; Klinger,

2009; Lance et al., 2010; Lance, Francis & Lietzau, 2010; Lance, Rodney & Hamilton-Pennell, 2000, 2001, 2002, 2005; Lance, Rodney & Russell, 2007; Lance, Rodney & Schwarz, 2009; Lance, Welborn & Hamilton-Pennell, 2010; Ontario Library Association, 2006; Quantitative Resources, LLC, et al, 2003; Rodney, Lance & Hamilton-Pennell, 2002, 2003; Ross, 2005; Small, Shanahan & Stasak, 2010; Smith, 2001, 2006; Todd, Gordon & Lu, 2010; Todd & Kuhlthau, 2003). The lessons learned in past studies have informed and improved the design and implementation of this study. However, there were several methodical lessons learned and several areas of future research that emerged from this research. Continued annual collection of the number of AC, TC and non-certified SLMS is recommended on a district and state level. These population numbers are not currently tracked and the sample of non-certified SLMS collected in this study was too small for comparison or generalizability. The *method of certification* is critical to know when planning professional development. Trend data about the pathways to SLMS certification would be an asset to the research and practice of SLMS.

Another underrepresented group in the literature is the SLMS with NBPTCS. One element that could enhance the survey is to add NBPTCS to the question about *highest degree earned*. SLMS who have earned NBPTCS account for 2% of SLMS in the field (Johnston, 2012). It would be interesting to compare and contrast this group with those who have different degrees of graduate study. Future research should track the number and trends of both the NBPTCS and non-certified group. A final group of interest would be SLMS supervisors and directors. While all of these groups are small compared to total SLMS population, their perceptions would enhance the investigation of

SLMS perceptions of collaboration, leadership, technology and professional development.

Perceptions and professional needs of non-certified SLMS are also important since this population is increasing in number. Budget cuts have altered the staffing in both US and Florida libraries. After steady decline between 2004-2007, between 2008–2009 and 2009–2010, 1,517 school librarian positions were lost across 34 states and DC (Lance and Hofshire (2011). Researchers (2011) described as "an alarming trend: in one recent year, our nation lost almost four times as many librarians as it had during the preceding four years (-2.3 percent vs. -0.6 percent)." As illustrated in Table 45, since 2008 Florida has followed the national trend of decline in SLMS positions (FL DOE Education, Information and Accountability Services Data Publications and Reports, 2003-2012).

Table 45: Florida SLMS Annual Population 2003-2012

Academic Year	Total SLMS	Percent Change
FL 2003-2004	2,705	1.92%
FL 2004-2005	2,796	3.36%
FL 2005-2006	2,778	-0.64%
FL 2007-2008	2,917	4.33%
FL 2008-2009	2,823	-3.22%
FL 2009-2010	2,710	-4.00%
FL 2010-2011	2,574	-5.02%
FL 2011-2012	2,350	-8.70%

These library-staffing cuts have resulted in hiring uncertified individuals in the position of SLMS as suggested by 70 non-certified SLMS working in libraries that once had a certified SLMS (FL DOE Education, Information and Accountability Services Data *Profiles of Florida School Districts, Student and Staff*, 2006-2007). It is important to understand the impact of increased numbers of non-certified SLMS and cuts to staffing of the library program on student achievement and the learning community. Several studies indicate that a well-staffed and funded library positively correlates with increased student

achievement (Lance, Rodney and Hamilton-Pennell, 2005; US NCLIS, 2008). Research on the impact of non-certified librarians and poorly staffed school library program on student achievement is recommended. *The Impact of New York's School Libraries on Student Achievement and Motivation* (Small, Snyder & Parker 2009) provides empirical evidence that certified SLMS do enhance the learning environment.

Research that should be highlighted includes studies that describe negative impacts on a shrinking school library media program. For example, the Colorado State studies, *Endorsed Librarian Positions in Colorado Public Schools Trending Downward* (AASL, 2010) and *Change in School Librarian Staffing Linked with Change in CSAP Reading Performance, 2005 to 2011* (Hofshire & Lance, 2012) authors maintained that those students with access to libraries staffed with an endorsed librarian performed better on achievement exams. These works read like cautionary tales of how the strides that have been made by SLMS could be undermined by budget cuts and limited staffing.

One of the themes that emerged in the interviews that require further investigation is the importance of the principal to the success of the school library program. It is critical to understand perceptions, expectations and philosophy of principals as it relates to the school library program. This information will lend insight to the leadership approaches that support and/ or undermine the work of SLMS.

Another element of leadership that needs further investigation is the role of mentorship in the professional preparation and development of SLMS. Qualitative findings of this study evidenced a theme of mentorship as critical to the pathway of a SLMS. Research the impact formal and informal mentorship might help to elucidate best practices on professional support systems.

In addition to self-perceptions of SLMS, this study revealed the need for continued investigation of the self-worth and self-efficacy of SLMS. Studies on how self-efficacy might impact SLMS practices around collaboration, leadership and technology are recommended. Validation of instrumentation measuring self-efficacy would be helpful to the field.

Future research should address the variable *number of years as a teacher* to explore the impact of past professional experiences of SLMS. Further research on whether or not a SLMS better poised to support learning environments if he or she has had classroom teaching experiences. For example, questions on whether or not SLMS more inclined to collaborate with classroom teachers if they have taught in a classroom setting are important to support the collaborative relationships of SLMS with the learning community. It may also be interesting to not whether or not the *number of years as a teacher* correlates to familiarity with *IP2*. Similarly, the variable *number of years in the current position* should be explored. Correlations to method of certification and familiarity with IP2 should be made as it relates to the length of a SLMS's tenure in a specific position.

Understanding the role of the SLMS in the implementation of the Common Core State Standards (CCSS) is critical to this historical moment in education. The CCSS were adopted by the FLDOE in 2011 and recommend full implementation by the 2014-2015 academic year (FLDOE, 2013). Collaboration is a key component of the CCSS curriculum. Further research on the role of the SLMS in the implementation of the CCSS, specifically as is relates to collaboration is advised.

This study employed a multi-method approach. First, the quantitative online survey measured saliency ratings of job tasks. This method was effective because the baselines studies from 1996 and 2006 provided trend data. This investigation provided a SME review of the instrument as being relevant and reflective of the current role of SLMS. In future research, a multi-method approach is recommended. As it relates to the methods, Ms. Alfred noted "I think that they (educational researchers and leaders) are not going to get the message if the only way they go about it is surveying and relying on anecdotal information that they just pick up from here or there. If they are not out in the schools, if they are not visiting, they are not seeing for real what happens." Based on Ms. Alfred's suggestion and researcher experience, a multi-method approach that includes repeated observation will enrich future research.

In conclusion, additional research is necessary for the future of the field of library science, instructional technology and education overall. Ms. Alfred stated, "Thomas Jefferson said, 'An educated public is essential for a democracy.' You have to educate and that is what we are doing. Keith Curry Lance is trying. You are trying it with this project." It is critical to student success that SLMS have a shared and holistic understanding of the standards roles and job tasks as they relate to collaboration, leadership and technology. It is imperative for the quality of American education that future researchers add depth and breadth to the niche describing the qualitative and quantitative merits of SLMS.

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Appendices

Appendix A: Participant SM1 Interview Validation Informed Consent Form

October, 2009

Dear School Library Media Specialist:

I am a doctoral student in the College of Education, Instructional Technology program. As part of a pilot program to inform my future dissertation, I am asking alternatively certified school library media specialists to share their perceptions of collaboration, leadership and technology. I want to know their perspectives on the implementation of standards and how important they are to the work as a media specialist.

As a subject matter expert, I would appreciate it if you would review the proposed interview questions. Your feedback will help to inform the relevance, validity and reliability of each of the questions. Please read the Interview Protocol and complete the corresponding Feedback form.

By participating in this research study, you will be providing information that may be of interest to those academics and practitioners interested in supporting successful school library media specialists and programs. There are no anticipated risks for participating in this research study.

The results of the study may be published in a dissertation. The published summary results will not include your name of ay other information that would personally identify you in any way.

Your participation in this research study is completely voluntary. You are free to participate in this research study or to withdraw at any time. Please proceed.

Thank you for your time and consideration.

Consent to Take Part in this Research Study

I have read this informed consent form describing this research project. I realize I have the right and opportunity to question the person in charge of this research and receive answers that I deem satisfactory.

I understand that I am being asked to participate in research. I understand the risks and benefits, and I freely give my consent to participate in the research project outlined in this form, under the conditions indicated in it.

Check the box below if you agree that in this study:
__X___ Yes, I agree (please proceed, thank you!)
_____ No, I do not agree (thank you for your consideration)

Appendix B: Participant SM1 Subject Matter Expert Interview Validation

Feedback Form

Subject Matter Expert Interview Feedback Form

Name: SM1
Position: Media Specialist

1. What were your overall impressions of the interview questions?
I thought that the interview questions were to the point and very appropriate to the matter.

2. Are there questions that are important? Why or why not?
I felt that all the questions were important. These were the same types of questions that I was asked when I was in Library School, and these are the same types of questions that I have been asked over and over again at interviews.

3. Are there questions that are not important? Why or why not?
I felt all the questions were important and relevant to the matter.

4. Are there any related questions that you would ask instead or in addition to these questions? NONE

5. Are there questions that are poorly worded and/or unclear? Please identify the questions? NONE

Appendix C: Pilot Web-based Survey Informed Consent Form (Stewart, 2008)

Dear School Library Media Specialist:

I am a doctoral student in the College of Education, Instructional Technology program. As part of a pilot program to inform my future dissertation, I am asking alternatively certified school library media specialists to share your perceptions of collaboration, leadership and technology. I want to know your perspective on the implementation of standards and how important they are to your work.

If you chose to participate, you will answer a brief web-based survey with no personal identifiers. This survey will take approximately 15-20 minutes. You will not be paid for your participation in this study.

By participating in this research study, you will be providing information that may be of interest to those academics and practitioners interested in supporting successful school library media specialists and programs. There are no anticipated risks for participating in this research study.

The results of the study may be published in a dissertation. The published summary results will not include your name of ay other information that would personally identify you in any way.

Your participation to participate in this research study is completely voluntary. You are free to participate in this research study or to withdraw at any time. Please proceed. Thank you for your time and consideration.

1. Consent to take part in this research study
Check the box below if you agree that in this study:

I have read this informed consent form describing this research project. I realize I have the right and opportunity to question the person in charge of this research and receive answers that I deem satisfactory.

I understand that I am being asked to participate in research. I understand the risks and benefits, and I freely give my consent to participate in the research project outlined in this form, under the conditions indicated in it.

_____ Yes, I agree (please proceed, thank you!)
_____ No, I do not agree (thank you for your consideration)

Appendix D: Primary Web-based Survey Informed Consent Form (Stewart, 2008)

Dear School Library Media Specialist:

I am a doctoral student in the College of Education, Instructional Technology program. As part of my dissertation, I am asking school library media specialists to share your perceptions of collaboration, leadership and technology. I want to know your perspective on the implementation of standards and how important they are to your work.

If you chose to participate, you will answer a brief web-based survey with no personal identifiers. This survey will take approximately 15-20 minutes. You will not be paid for your participation in this study.

By participating in this research study, you will be providing information that may be of interest to those academics and practitioners interested in supporting successful school library media specialists and programs. There are no anticipated risks for participating in this research study.

The results of the study may be published in a dissertation. The published summary results will not include your name of ay other information that would personally identify you in any way.

Your participation to participate in this research study is completely voluntary. You are free to participate in this research study or to withdraw at any time. Please proceed. Thank you for your time and consideration.

1. Consent to take part in this research study
Check the box below if you agree that in this study:

I have read this informed consent form describing this research project. I realize I have the right and opportunity to question the person in charge of this research and receive answers that I deem satisfactory.

I understand that I am being asked to participate in research. I understand the risks and benefits, and I freely give my consent to participate in the research project outlined in this form, under the conditions indicated in it.

_____ Yes, I agree (please proceed, thank you!)
_____ No, I do not agree (thank you for your consideration)

Appendix E: Pilot Web-based Survey

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

1. Demographic Information

***1. Please note the following.**

Gender:

Ethnicity:

Age (Age may be rated in units of 29 and Under, 30-39, 40-49, 50-59, and 60 or older.):

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Exit this survey

2. Preparation

***1. Highest Degree Earned**

Bachelor's | Some Grad Work | Master's | Ed. Specialist | Doctorate | Other

***2. Method of Certification**

Not Certified | 30 hours coursework and FTCE | Earned Masters in LIS or Ed. Media | Passing FTCE, no coursework | Prior to FTCE being required

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Exit this survey

3. Experience

***1. Years in Profession (Check one per row.)**

	0-5	6-10	11-15	16-20	21-25	25-30	More than 30
Number of Years as a Teacher							
Number of Years as a School Library Media Specialist							
Number of Years in Current Position							

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Exit this survey

4. School Related Demographic Information

***1. Level of School (Check all that apply.)**

Elementary | Middle | High | Combination

***2. School Number of Students and Location**

	Rural	Rural/ Suburban	Suburban	Suburban/ Urban	Urban
1-300 Students					
301-800 Students					
801-1300 Students					
1301-1800 Students					
1801 – 2300 Students					
More than 2300 Students					

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology Exit this survey

5. Information Power: Building Partnerships for Learning

***1. Familiarity with Information Power (IP)**

☐ More than once ☐ One time ☐ Scanned ☐ Heard of-never read ☐ Never heard of

***2. Attended In-service on Information Power (IP)**

☐ Several ☐ One ☐ None

***3. Attempts to Implement IP1 and IP2**

☐ Made serious attempts ☐ Made some attempts ☐ Made no attempts

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology Exit this survey

6. Job Task Analysis

*** 1. Using the following scale, please describe how much time you spend on the following school library media related job tasks.**

	Not a part of the job	Much less time	Less time	About the same amount of time	More time	Much more time
Develop a strategic plan for the media center, including mission, goals and objectives	○	○	○	○	○	○
Introduce materials of special interest to class groups (e.g., via book talks or story telling activities)	○	○	○	○	○	○
Work cooperatively with district and/ or regional education and media center service units	○	○	○	○	○	○
Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	○	○	○	○	○	○
Participate in team teaching activities	○	○	○	○	○	○
Work with teachers to design innovative instructional approaches	○	○	○	○	○	○
Lead or participate in School Improvement Teams	○	○	○	○	○	○
Provide formal instruction skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.)	○	○	○	○	○	○
Assist students and/ or teachers with general references services (e.g., answer reference questions)	○	○	○	○	○	○

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Exit this survey

6. Job Task Analysis

*** 1. Using the following scale, please describe how much time you spend on the following school library media related job tasks.**

Instruct teachers concerning ways to incorporate technology into the classroom curricula						
Provide adaptive technologies for students with special needs						
Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books						
Keep informed about new technologies						
Plan and participate in meetings to present the functions and services of the media center to parent and community organizations						
Assist students and/ or teachers in locating and selecting materials						
Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.)						
Keep teachers informed concerning students' information skills						
Instruct students and/ or teachers in the use of the public access catalog system						
Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)						
Inform faculty of new media center services, materials, and technology						
Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)						
Conduct workshops/ in-service and other training for teachers – use of materials, equipment, technology, and new production techniques.						
Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.						
Interpret and apply national, regional, state and local standards and guidelines to library media programs						
Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes						
Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.)						

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Exit this survey

6. Job Task Analysis

*** 1. Using the following scale, please describe how much time you spend on the following school library media related job tasks.**

Work cooperatively with public libraries to promote and encourage student and family use of resources						
Instruct teachers and students in media center policies and procedures						
Upgrade relevant professional skills (e.g., attend college courses and/ or seminars)						
Inform faculty and or students of copyright laws and interpret as necessary.						
Maintain and support a computer network for the media center						
Organize and/ or participate in technology teams/ technical committees						
Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.)						
Use online services to retrieve information (e.g., in doing research)						
Organize and/ or facilitate a school library media advisory committee for short and long range planning						
Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units						

Appendix F: Web-based Survey

d in this form,
under the conditions indicated in it.

_____ Yes, I agree (Please proceed, thank you!)
_____ No, I do not agree (Thank you for your consideration.)

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Demographic Information

Please note the following:

2. Gender
   - ○ Female
   - ○ Male

3. Ethnicity

4. Age:
   - ☐ 29 and Under
   - ☐ 30-39
   - ☐ 40-49
   - ☐ 50-59
   - ☐ 60 and older

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Preparation

5. Highest Degree Earned
   - ○ Bachelor's
   - ○ Master's
   - ○ Educational Specialist
   - ○ Doctorate
   - ○ Other, please specify

6. Method of Certification
   - ○ Not Certified
   - ○ 30 hours coursework and FTCE

- Earned Master's in LIS or Ed. Media
- Passing FTCE, no coursework
- Alternatively Certified: Prior to FTCE being required
- Other, please specify

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Experience

7. Years in Profession (Check one per row.)

	0-5	6-10	11-15	16-20	21-25	25-30	More than 30
Number of Years as a Teacher							
Number of Years as a School Library Media Specialist							
Number of Years in Current Position							

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Level of School

8. Level of School (Check all that apply)
   - Elementary
   - Jr. High/ Middle
   - High

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Information Power 2

Information Power 2: Building Partnerships for Learning

9. Familiarity with Information Power 1 (IP1) and/ or Information Power 2 (IP2)
   - More than once - Extremely Familiar
   - One time - Very Familiar
   - Scanned - Familiar
   - Heard of - never read - Somewhat Familiar
   - Never heard of - Not Familiar

10. Attended in-service on Information Power (1) and/ or Information Power 2 (IP2)
    - Four or More
    - Three
    - Two
    - One
    - None

11. Attempts to Implement Information Power 1 and/ or Information Power 2
    - Make Continuous Attempts
    - Made Several Attempts
    - Made Some
    - Made One Attempt
    - Made No Attempts

School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Job Task Analysis

The Time Spent scale is a 5-point scale ranging from: 1 = I spend much less time on this than other things I do on my job to 5 = I spend much more time on this than other things I do on my job. Please read each prompt and note how much time you spend on the task indicated compared to how much time you spend on other things you do on the job.

12. Serve on curriculum committees and assist in the selection of appropriate materials for resource units and curriculum guides.
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

13. Develop a strategic plan for the media center, including mission, goals and objectives.
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

14. Lead or participate in School Improvement Teams.
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

15. Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.).

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

16. Act as a resource to teachers in providing ideas, and/or resource materials to be included as part of classroom units.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

17. Use online services to retrieve information (e.g., in doing research).
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

18. Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

19. Instruct students and/ or teachers in the use of the public access catalog system.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time

- ○ Much more time

20. Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.).
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

21. Coordinate special reading, writing, and student production programs (e.g. Sunshine State Reader's program, Jim Harbin video awards, etc.)
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

22. Work cooperatively with district and/ or regional education and media center service units.
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

23. Maintain and support a computer network for the media center.
    - ○ Not a part of the job
    - ○ Much less time
    - ○ Less time
    - ○ About the same amount of time
    - ○ More time
    - ○ Much more time

24. Upgrade relevant professional skills (e.g., attend college courses and/ or seminars).
    - ○ Not a part of the job
    - ○ Much less time

- Less time
- About the same amount of time
- More time
- Much more time

25. Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.).
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

26. Plan and participate in meetings to present the functions and services of the media center to parent and community organizations.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

27. Inform faculty of new media center services, materials, and technology.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

28. Provide adaptive technologies for students with special needs.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

29. Introduce materials of special interest to class groups (e.g., via book talks or story telling activities).

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

30. Work with faculty to coordinate media center materials, activities, and technology in conjunction with curriculum programs, units, and text books

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

31. Interpret and apply national, regional, state and local standards and guidelines to library media programs.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

32. Evaluate the adequacy and suitability of facilities, equipment, materials, and services with regard to their impact on learning outcomes.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

33. Organize and/ or participate in technology teams/ technical committees.

- Not a part of the job
- Much less time
- Less time

- Less time
- About the same amount of time
- More time
- Much more time

34. Inform faculty and or students of copyright laws and interpret as necessary.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

35. Instruct teachers concerning ways to incorporate technology into the classroom curricula.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

36. Instruct students and/ or teachers in the use of various technology objects (e.g., CD-ROM encyclopedia, graphic arts presentations, multimedia presentations, etc.).
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

37. Work cooperatively with public libraries to promote and encourage student and family use of resources.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

38. Keep teachers informed concerning students' information skills.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

39. Assist students and/ or teachers with general references services (e.g., answer reference questions).

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

40. Participate in team teaching activities.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

41. Organize and/ or facilitate a school library media advisory committee for short and long range planning.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

42. Assist teachers and students in the use of production techniques.

- Not a part of the job
- Much less time
- Less time
- About the same amount of time

- More time
- Much more time

43. Instruct teachers and students in media center policies and procedures.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

44. Conduct workshops/ in-service and other training for teachers – use of materials, equipment, technology, and new production techniques.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

45. Keep informed about new technologies.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

46. Work with teachers to design innovative instructional approaches.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

47. Provide formal instruction in information skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.).
    - Not a part of the job

- Much less time
- Less time
- About the same amount of time
- More time
- Much more time

48. Assist students and/ or teachers in locating and selecting materials.
    - Not a part of the job
    - Much less time
    - Less time
    - About the same amount of time
    - More time
    - Much more time

Appendix G: Pilot and Primary Interview Informed Consent Form (Janesick, 2004, 2011)

Informed Consent to Participate in Research

Information to Consider Before Taking Part in this Research Study

IRB Study # Pro00042

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study.
We are asking you to take part in a research study that is called:
School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

---

The person who is in charge of this research study is Jozan Powell. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge.

Purpose of the Study

The purpose of this study is to describe and explain the significant differences between AC SLMS and TC FSLMS relative to their perceptions of the importance of their job tasks themed around collaboration, leadership, and technology. The level of importance is measured by the *saliency* of each task. *Saliency* is a composite score combining the time an individual spends on a task and how important he or she thinks that task is in relation to the other job tasks they perform. By including a qualitative inquiry approach, this study also seeks to propose professional development that is appropriate and necessary for SLMS.

Study Procedures

If you take part in this study, you will be asked to participate in interviews. I, the PI, am conducting this study for educational purposes, no harm will come to you, and that all information will be treated with confidentiality and anonymity. The interviews will be tape-recorded. Data will be stored in a secure manner and will not be shared. The researcher will maintain all personal information and data of individuals. Identifying data will not be collected. Observations are recorded in such a manner that the human subjects cannot be identified, directly or through identifiers linked to the subjects. The researcher will store all data on a password protected site and hard-drive. The researcher will make efforts such as managing the site and maintaining a password to ensure confidentiality and data integrity. Physical documentation will be supervised by the researcher. When possible, this study uses non-identifying codes (names/ numbers) to maintain confidentiality. Specifically, the single subject will be identified by the name "MSpecialistA" throughout the study. If identifiers are recorded, they will be separated,

from data and stored securely. Linkage will be restored only when necessary to conduct the research. You may withdraw at any time, and you will receive a copy of the full report. You may see the data and anything I write at any time.

Alternatives

You have the alternative to choose not to participate in this research study.

Benefits

There are no benefits to taking part in this study.

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation

You will receive no compensation for participation in this study.

Confidentiality

We must keep your study records as confidential as possible. We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. However, certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator, and all other research staff**.**
- The University of South Florida Institutional Review Board (IRB) and the staff that work for the IRB. Other individuals who work for USF that provide other kinds of oversight may also need to look at your records.
- The Department of Health and Human Services (DHHS).

Voluntary Participation / Withdrawal

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study, to please the investigator or the research staff. You are free to participate in this research or withdraw at any time. There will be no penalty if you stop taking part in this study.

Questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, call PI Jozan Powell at 404-538-6527 or Faculty Advisor Dr. Ann Barron at 407-592-0309. If you have questions about your rights as a participant in this study, general questions, or have complaints, concerns or issues you want to discuss with someone outside the research,

call the Division of Research Integrity and Compliance of the University of South Florida at (813) 974-5638.

Consent to Take Part in this Research Study

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true. **I freely give my consent to take part in this study.** I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____ _____

Signature of Person Taking Part in Study Date

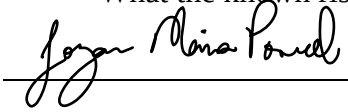
_____

Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect. I hereby certify that when this person signs this form, to the best of my knowledge, he or she understands:

- What the study is about.
- What procedures/interventions will be used.
- What the potential benefits might be.
- What the known risks might be.



Signature of Person Obtaining Informed Consent Date

Jozan Powell

Printed Name of Person Obtaining Informed Consent

Appendix H: Interview Protocol

Explication of Interview Procedure

Before: Informed consent form signed via email, prepare Skype, provide context for interview and verbal informed consent.

During: Check on recording, listen to participant and write notes.

After: Verify that the recorder has worked, debrief with participant, write notes and observations.

Interview Protocol I

	Interview Question	Type	Rationale
1	Can you talk about your decision to become a school library media specialist?	Personal vision-building, Introducing Question, Basic Descriptive Question	To establish vision and begin the interview.
2	How did you become a school library media specialist?	Experience/ Example Question	Designed to describe the method of certification earned.
3	What are the most important elements of your work as a media specialist?	Structural/ Pragmatic Question	Designed to prioritize job tasks.
4	What are the least important elements of your work as a media specialist?	Structural/ Pragmatic Question	Designed to prioritize job tasks.
5	What type of training, certification and professional development are appropriate to successful school library media specialists? Do AC and TC have different needs?	Structural/ Pragmatic Question, Compare/ Contrast Question	Designed to lend insight to the study goals.
6	What are some recommendations for AC vs. TC SLMS professional development as it relates to collaboration? What are some recommendations for AC vs. TC SMLS professional development as it relates to leadership? What are some recommendations for AC vs. TC SLMS as it relates to technology?	Descriptive Question	Designed to lend insight into study goals.
7	Can you describe an unsuccessful training, certification and/or professional development related to collaboration, leadership and/ or	Simple Clarification Question, Compare/Contrast Question	Designed to clarify prior question, extend response and provide examples.

	technology that you have experienced in your career?		
8	Can you describe a successful training, certification and/or professional development related to collaboration, leadership and technology that you have experienced in your career?	Simple Clarification Question, Compare/ Contrast Question	Designed to clarify prior question, extend response and provide examples.
9	Are there any important items we missed and is there anything that you would like to add to our conversation today?	Simple Clarification Question	Designed to clarify, extend and close the conversation.

Interview Protocol II

	Interview Question	Type	Rationale
1	In our last conversation you indicated that . . .types of training, certification and professional development are appropriate and important for successful school library media specialists. Is that an accurate description of your answer?	Interpreting Question, Simple Clarification Question, Structural/ Pragmatic Question	Member Check
2	An idea that was surprising in our last conversation was . . .. Can you explain further?	Interpreting Question, Simple Clarification Question	Designed to clarify prior question, extend response and provide examples.
3	Are you aware of the content and/ or standards for media specialists of the Information Power 2 text? How did you learn about this information? If so, how does it impact your work?	Structural/ Pragmatic Question	Designed to determine how knowledgeable participants are on *IP2* and standards in order to assess how it impacts their work.
4	Are professional standards for media specialists necessary? Why or why not?	Structural/ Pragmatic Question	Designed to illustrate how participants perceive the ideal professional standards.
5	If you were to create standards for media specialists, what would they include? What process would you use to develop and implement these standards?	Structural/ Pragmatic Question	Designed to illustrate how participants perceive the ideal elements, development and implementation for professional standards. The scenario is used to connect the participant personally to the question.
6	Are there any important items we missed and is there anything that you would like to add to our conversation today?	Simple Clarification Question	Designed to clarify, extend and close the conversation.

Interview Form I

Project Name: Alternatively Certified Florida School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Date:
Interviewer:
Tape Number:
Time:
Location:

Interview Question	Type	Rationale
1. Can you talk about your decision to become a school library media specialist?		
2. How did you become a school library media specialist?		
3. What are the most important elements of your work as a media specialist?		
4. What are the least important elements of your work as a media specialist?		
5. What type of training, certification and professional development are appropriate to successful school library media specialists? Do AC and TC have different needs?		
6. What are some recommendations for AC vs. TC SLMS professional development as it relates to collaboration? What are some recommendations for AC vs. TC SMLS professional development as it relates to leadership? What are some recommendations for AC vs. TC SLMS as it relates to technology?		
7. Can you describe an unsuccessful training, certification and/or professional development related to collaboration, leadership and/ or technology that you have experienced in your career?		
8. Can you describe a successful training, certification and/or professional development related to collaboration, leadership and technology that you have experienced in your career?		
9. Are there any important items we missed and is there anything that you would like to add to our conversation today?		

Interview Form II

Project Name: Alternatively Certified Florida School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Date:
Interviewer:
Tape Number:
Time:
Location:

Interview Question	Type	Rationale
1. In our last conversation you indicated that . . .types of training, certification and professional development are appropriate and important for successful school library media specialists. Is that an accurate description of your answer?		
2. An idea that was surprising in our last conversation was . . .. Can you explain further?		
3. Are you aware of the content and/ or standards for media specialists of the Information Power 2 text? How did you learn about this information? If so, how does it impact your work?		
4. Are professional standards for media specialists necessary? Why or why not?		
5. If you were to create standards for media specialists, what would they include? What process would you use to develop and implement these standards?		
6. Are there any important items we missed and is there anything that you would like to add to our conversation today?		

Interview Release Form

Project Name: School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Interviewer: Jozan Maria Powell

Date: _____
Tape number: _____

Name of person(s) interviewed: _____
Address: _____
Telephone number: _____

By signing the form below, you give your permission for any tapes and/or photographs made during this project to be used by researcher and the public for educational purposes including publications, exhibitions, World Wide Web, and presentations.

By giving your permission, you do not give up any copyright or performance rights that you may hold.

I agree to the uses of these materials described above, except for any restrictions, noted below.

Name (please print): _____
Signature: _____
Date: _____

Researcher's signature: _____
Date: _____

Restriction Description:
_____
_____
_____
_____

Appendix I: Member Check Form (Janesick, 2004, 2011)

Date: _____

Dear _____,

Thank you for participating in an engaging insightful interview. Please find a draft copy of the verbatim transcripts of the interview. Please review the transcription for accuracy or responses and reporting of information.

If you have any questions, comments and/ or concerns, please call me at (404) 538-6527 or email me at jmpowel3@mail.usf.edu

Thank you again for your time, consideration and willingness to participate in this study.

Sincerely,
Jozan Maria Powell

Appendix J: Peer Reviewer Form (Janesick, 2004, 2011)

Peer Reviewer Form

I, _____, have served as a peer reviewer for "School Library Media Specialists Perceptions of Collaboration, Leadership and Technology" by Jozan Maria Powell. In this role, I have worked with the researcher throughout the study in capacities such as reviewing the transcripts and assisting in emerging issues.

Signed: _____

Date: _____

Appendix K: Search Strategy Sources (Detailed)

The following sources are considered important to the study and are reviewed for related literature.

Blogs

- American Library Association Blog, http://blogs.ala.org/
- Beyond the Job, http://www.beyondthejob.org/
- Georgia Library Media Association, http://www.glma.wordpress.com

- Books
  - *IP1*
  - *IP2*
- Databases
  - ERIC
  - Dissertation Abstracts International and the Library, Information Science, and Technology Abstracts (LISTA) in the EBSCO International database
- Government Organizations
  - Florida Department of Education Accountability, Measurement and Research, http://www.fldoe.org/arm/
  - US State Department of Education Institute of Information Sciences National Center for Educational Statistics http://nces.ed.gov/
  - US State Department of Education NCLB Act, http://www.ed.gov/policy/elsec/leg/esea02/index.html
- Private Research Organizations
  - Consortium for Policy Research in Education
  - National Center for Alternative Certification
  - National Center for Education Information (NCEI)
- Professional Societies & Related Publications
  - American Association of School Librarians (AASL)
    - School Library Media Research, http://www.ala.org/ala/mgrps/divs/aasl/aaslpubsandjournals/slmrb/schoollibrary.cfm
    - School Library Media Quarterly
  - American Library Association, http://www.ala.org/
  - Association for Educational Communications and Technology: www.aect.org
  - Association for Library and Information Science and Education (ALISE) Youth Services Special Interest Group
  - Florida Association for Media in Education (FAME) http://www.floridamedia.org/
    - Florida Media Quarterly
  - International Federation of Library Associations, (IFLA)
  - International Society for Technology in Education (ISTE)
    - Journal of Computing in Teacher Education

        - Journal of Research on Technology in Education (JRTE) published by ISTE
        - Leading and Learning (L&L)– ISTE
        - National Center for Alternative Education
            - Research about Alternative Routes
    - International Association of School Librarianship
        - School Libraries Worldwide, http://www.iasl-online.org/pubs/slw/
    - Library and Information Technology Association, www.lita.org
        - LITA Blog
        - Information, Technology and Libraries (ITAL)
    - National Association for Alternative Certification, http://www.alt-teachercert.org/index.asp
        - Journal of the National Association for Alternative Certification (JNAAC)
- Publications
    - British Journal on Educational Technology
    - Digest of Education Statistics, Condition of Education, Baccalaureate and Beyond, and the National Household Education Surveys Program: 2001-2005, www.ed.gov
    - Journal of Education for Library and Information Science
    - MultiMedia and Internet at Schools, http://www.mmischools.com
    - School Library Journal, http://www.schoollibraryjournal.com/
    - Teacher Librarian
    - Technology Connection
    - Technology, Pedagogy and Education
- Research Studies
    - *The Extent of Implementation of the 1969 Standards for School Library Media Programs in Selected Public Elementary and Secondary Schools in the New England States* (Bantly, 1977)
    - *Florida Schoolyear 2000 Job and Task Analysis: Guidance Counselors, Media Specialists, and Technical Support Personnel* (Bruskiewicz, K.T. et al., 1996)
    - *Making the Grade: the Status of School Library Media Centers in the Sunshine State and How they Contribute to Student Achievement* (Baumbach, 2003)
    - *Perceptions of Florida School Library Media Specialists Relative to Saliency of Collaboration, Leadership and Technology Tasks Outlined in Information Power: Changes Since 1996* (Pace, 2007)
    - *Florida Statewide Technology Survey: Results Related to Integration and Support (Hohlfeld, T.N., Barron, A.E., and Ritzhaupt, A.D.)*
- Search Engines
    - Google Scholar
    - Yahoo
    - Google Blog Search
    - Bloglines

Appendix L: Pilot Study Detailed Results

The size of the sample drawn from the population of Clayton County SLMS studied was 61. It is unknown the sample proportion of people in the survey being surveyed who are expected to answer in a certain way on the primary measure in the survey, therefore a sample proportion of 50% is used because this produces maximum possible variation. The desired confidence interval is 95%. The sampling error is 3.78%. Using as test value of 50%, with a sample percentage of 91.04% and an alpha error level of 5%, the statistical power is 100%.

Of the 61 participants that began the survey, 59 (or 96.7% of respondents) participants completed all components of the survey. There was a 100% response for all demographic questions. The two participants with incomplete surveys skipped the job task analysis component of the study.

Data analysis for Part One of the survey looks closely at the descriptive and demographic characteristics of the population sampled. Means were computed for continuous variables, while frequencies were computed for items with qualitative data (Bruskiewicz et al., 1996, p. 18; Pace, 2007). Also aligned with the foundational studies, ranked values were assigned to most demographic and environmental variables.

There was an even distribution of level of school among particpants that took the survey SLMS survey. This even distribution allows for comparison across school level. When looking at responses, there did not appear to be a difference in the way respondents answered questions based on level.

Table L1: School Library Media Specialist by Level 2010 Sample

Level of School	Frequency	% of Sample
Elementary	22	36.1%
Middle	22	36.1%
High	19	31.1%
Combination	0	0.0%

In this sample, there were no SLMS that use the label "Combination" although in two survey responses multiple levels of school are selected. In the future Florida study, the questions will be clarified so that each respondent selects only one primary level.

Table L2: School Library Media Specialists by Race 2010 Sample

Ethnic Category	Females	Males	Total
Hispanic or Latino	6	1	7
Not Hispanic or Latino	44	9	53
Unknown (individuals not reporting ethnicity)	0	0	1
Ethnic Category: Total	50	10	61
Racial Categories			
American Indian / Alaskan Native	0	0	0
Asian	3	0	3
Black or African American	17	5	22
Native Hawaiian / Pacific Islander	0	0	0
White	24	4	28
More than one Race	0	0	0
Unknown or Not Reported	0	0	1
Racial Categories: Total	44	9	54
Total of all Participants (Racial and Ethnic Categories)**	50	10	61

While most SLMS that took the survey identifed as, White, the second largest frequency of response was Black or African American.

Table L3: School Library Media Specialists by Gender, *Age* and Level 2010 Sample

Level		***Age* Range**					
		20-29	**30-39**	**40-49**	**50-59**	**≥ 60**	**Population Total**
Elementary							
	Female	2	8	4	4	1	19
	Male	0	2	1	0	0	3
	Total Elementary	2	10	5	4	1	22
Middle							
	Female	1	3	6	5	1	16
	Male	0	1	1	1	0	3
	Total Middle	1	4	10	6	1	22
High							
	Female	0	1	6	5	3	15
	Male	0	0	1	3	0	4
	Total High	0	1	7	8	3	19
Total All Levels	**59**						
Total Female	**49**						
Total Male	**10**						
Total Population	**61***						

* 2 participants did not respond

Table L4: *Highest Degree Earned* 2010 Sample

Degree	Frequency	% of Sample
Bachelor's	6	9.8%
Some Grad Work	9	14.8%
Master's	21	34.4%
Ed. Specialist	15	24.6%
Doctorate	10	16.4%
Other	0	0.0%

The majority, 75.4%, of SLMS in the sample have a Master's Degree or higher as their *highest degree earned*. The results indicate a commitment to higher education and professional learning.

While many of the SLMS sampled have earned degrees beyond the Master's, the majority of SLMS sampled (45%) have worked for less that 10 years as SLMS.

Table L5: Number of Years as a School Library Media Specialist 2010 Sample

Number of Years	Frequency	% of Sample
0-5	12	20%
6-10	15	25%
11-15	7	11%
16-20	10	16%
21-25	9	15%
25-30	2	3%
More than 30	5	8%

The second largest group, 42% of SLMS sampled have worked between 11-20 years. 11% of SLMS sampled are approaching retirment.

Table L6: *Method of Certification* 2010 Sample

Method of Certification	**Frequency**	**% of Sample**
Not Certified	2	3.3%
30 hours coursework and FTCE	12	19.7%
Earned Masters in LIS or Ed. Media	36	59.0%
Passing FTCE, no coursework	1	1.6%
Prior to FTCE being required	11	18.0%

The majority of SLMS sampled earned certification through 30 hours of coursework and FTCE (19.7%) or earned a Master's degree in LIS or Ed. Media. Extremely few SLMS sampled were uncertified (3.3%). Similarly, only 1 (1.6%) of SLMS sampled passed the FTCE without doing any coursework.

Table L7: *Familiarity with Information Power* 2010 Sample

Familiarity with Information Power	**Frequency**	**% of Sample**
More than once	31	50.8%
One time	18	29.5%
Scanned	8	13.1%
Heard of-never read	3	4.9%
Never heard of	1	1.6%

The majority of SLMS sampled (50.8%) have familiarity with Information Power, or have heard of the texts (29.5%) or have scanned the text (13.1%). It makes sense that with so many of the SLMS sampled having earned Master's degrees and beyond that there would be a high level of familiarity with *IP1* and *IP2*.

Table L8: *Attended In-service on IP2* 2010 Sample

***Attended In-service on Information Power* (*IP2*)**	**Frequency**	**% of Sample**
Several	28	45.9%
One	26	42.6%
None	7	11.5%

The majority of SLMS sampled (88.5%) have *attended in-services on IP1* and *IP2*. This is consistent with the high results when asked about familiarity with IP1 and *IP2*.

Table L9: *Attempts to Implement Information Power* 2010 Sample

Attempts to Implement IP1* and *IP2	**Frequency**	**% of Sample**
Made Serious Attempts	18	29.5%
Made Some Attempts	27	44.3%
Made No Attempts	16	26.2%

Most SLMS sampled have made serious (29.5%) or some (44.3%) *attempts to implement IP1* and *IP2*. Still 26.2% of SLMS surveyed note that they have made no *attempts to implement IP1* or *IP2*.

Table L10: Job Task Analysis Response Rates

High Response Rates to Job Task Items on which Respondents Spend Little Time	**High Response Rates for Job Task Items on which Respondents Spend More Time**
Provide formal instruction skills to students in classroom or small group settings (e.g., use of materials, reference techniques, etc.)	Keep teachers informed concerning students' information skills
Provide informal (e.g., one-on-one) instruction in information skills (e.g., use of materials, reference techniques, etc.)	Assist students and/ or teachers with general references services (e.g., answer reference questions)
Provide formal instruction to students in classroom or small-group setting in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	Assist students and/ or teachers in locating and selecting materials
Provide informal (e.g., one-one-one) instruction to students in media center and/ or school-wide technology resources (e.g., multimedia production, etc.)	Use online services to retrieve information (e.g., in doing research)
Introduce materials of special interest to class groups (e.g., via book talks or story telling activities)	Organize and/ or facilitate a school library media advisory committee for short and long range planning
Participate in team teaching activities	Interpret and apply national, regional, state and local standards and guidelines to library media programs
Inform faculty of new media center services, materials, and technology	Plan and participate in meetings to present the functions and services of the media center to parent and community organizations
Keep teachers informed concerning students' information skills	Maintain and support a computer network for the media center
Inform faculty and or students of copyright laws and interpret as necessary.	Attend meetings/ conference and participate in professional organizations (e.g., FAME, AASL, etc.)
Assist teacher and students in the use of production techniques	Work cooperatively with district and/ or regional education and media center service units
Provide adaptive technologies for students with special needs	Work cooperatively with district and/ or regional education and media center service units
Work cooperatively with public libraries to promote and encourage student and family use of resources	
Upgrade relevant professional skills (e.g., attend college courses and/ or seminars)	

The job task items that were considered to take less time grouped around the themes of leadership and collaboration whereas the job task items that were considered to take more time grouped around the themes of leadership and collaboration. Job task items that related to technology were most often answered with the "About the same amount of time" response. There are two items on the job task analysis on which respondents overwhelming (over 20%) felt were not part of the job: they are " Conduct workshops/ in-service and other training for teachers – use of materials, equipment, technology, and new production techniques" and "Lead or participate in School Improvement Teams".

One of the 3 AC SLMS in Clayton County Public Schools was interviewed using the proposed protocol. The participant was interviewed twice with a month between interviews. Interviews were transcribed and coded based on the themes collaboration, leadership and technology. Member checks were completed to ensure that the conclusions generated resonated with the interviewee.

The first interview revealed that the while the interviewee became a SLMS through alternative means, it was her dream job because she wanted to provide a safe learning environment for all students. She sees building relationships that support instruction as the most important elements of her job. SLMS notes that scheduling is the environmental factor that most impacts her work. She also notes that AC and TC need similar professional development, preferably job embedded professional development as oppose to "sit and get" professional development. She continues that professional development for both TC and AC SLMS must include real-life situations, include opportunities for collaboration and be relevant and interesting.

The second interview with the SLMS provided an opportunity to expand on some of the points made in the first interview. In this interview the interviewee reaffirmed the notion of job embedded, relevant and easily applicable professional development was necessary for SLMS. She again noted that the opportunity to collaborate is one of the most important elements of SLMS professional development. The interviewee contends that standards are critical to maintaining the professionalism of the role of SLMS. She concludes that while *IP1* and *IP2* might be stressed in academic programs, there are little to few opportunities for professional development that *IP1* and *IP2* centered when working as a SLMS.

Appendix M: Sample Blog Entry

FAME 2009 Reflection: 10/05/09
The Florida School Library Media Specialists (FSLMS) I met at FAME 2009 were inspiring, innovative and engaging 21st Century educators. A theme throughout the conference was that SLMS often have to be advocates of their craft and profession. The FAME 2009 conference experience helped to affirm and inform my research goals, questions and methods.

The following adjectives describe my impressions of the FSLMS I met at FAME 2009: helpful, friendly, intelligent, pensive, self-reflective, witty, precise, and kind. I did 3 shot-gun interviews with FSLMS and a focus group with 4 FSLMS.

FAME 2009 Shot-gun Interviews October 1, 2009

FAME 2009 Marriot World Hotel, Orlando Florida
The space of the FAME 2009 conference consists over ten large conference rooms and vendor exhibit hall.

Shot-gun Interview Prompt: Hello, my name is JPowell and I am a doctoral student writing a dissertation on FSLMS. May I share my research interests with you and obtain your professional perspectives? My reflections of our talk will be recorded in my notes and included in my researcher reflective blog without any personal identifiers. This conversation will not be tape-recorded . . . Great, I am interested in identifying significant differences and similarities between AC and TC FSLMS as it relates to their perceptions of collaboration, leadership and technology. I am also interested in how these differences and similarities might impact professional development in the field. What do you think about these two topics?

MS1: 30 minutes
Demographics:
Gender: Female
Race: African-American
Age: 55 MS1 referenced her age during the interview. MS1 indicated that she was a FSLMS retiring this year.
Certification Route: MS1 was an elementary classroom teacher and became a FSLMS first by a principal's appointment and later through the master's program and FTCE exam.
Perceptions on Certification: MS1 began her career as an elementary school teacher and was then appointed by her principal to work as the SLMS. According to MS1, she found this AC route helpful for the teaching components of her job but not for the elements of her work that deal with technology. MS1 notes that she had to self-teach herself on technology. She decided to become a TC by training in the SLMS master's program and passing the FCTE. MS1 notes, "I have been both an AC and TC. I did not have to get the master's in School Library Sciences or take the exam, I chose to."

Perceptions of Professional Development: As for professional development, MS1 notes that her county has so much to offer and that it is really up to individuals to take courses that benefit them.

Perceptions of Technology: MS1 uses inspiration and notes that she does not really like technology but feels it is important for children.

Perceptions of Standards: When asked about national NETS standards, MS1 notes that they are more for the state than the practitioner.

Perceptions of Survey Questions:
MS1 approves of the survey questions. She is dissapointed that there is no space to explain a response.

Other Comments: MS1 notes that she loves the position and has enjoyed her career as a FSLMS. She looks forward to retiring, relocating and pursuing a job in an instructional technology related field.

MS2: 5 minutes
Demographics:
Gender: Female
Race: White
Age: 55-65, MS2 indicated that she was a FSLMS retiring this year.
Certification Route: TC FSLMS
Perceptions of Certification: MS2 notes that she was a TC FSLMS and that her coursework helped prepare her to work. She said that even though she does not prefer the AC route, if it had been available when she was preparing to be a FSLMS, she would have taken it and been successful because of her prior knowledge of how libraries work, the Dewey Decimal System, and cataloging. MS2 does not feel that merely taking the FCTE exam was an adequate amount of preparation. “Just taking an exam won’t prepare you.” Indicated that she felt that it was insufficient to just take the exam in order to become a FSLMS. She said her other colleagues felt even more strongly. She noted that with being an AC SLMS, there was a gap in the professional development.

Perceptions of Professional Development: As it relates to PD, she indicated that there are never any MS related PD in her district but that there was an ample amount of opportunity to have job related PD through local colleges and the state DOE.

Perceptions of Survey Questions: The questions are straighforward. The items are tasks that are common to the job.

MS3: 30 minutes
Demographics:
Gender: Female

Race: White
Age: 55-65
Certification Route: Began her career as an AC and then went through a cohort program at USF (hybrid) and earned the degree in 2001.
Perceptions on Certification:
MS3 says "Take a test, teach a child does not work. The AC approach lacks theory, foundation, and methods. SLMS need to understand the philosophy of the library." MS3 goes on to say that "It is taxing on the rest of the staff when persons are AC. They often then need the support of mentor teachers which drains the whole staff."

Perceptions of Standards: MS3 has read IP1 and not IP2 Standards. MS3 notes, "Houses need foundations, frameworks and then you fill in the blanks – the number of rooms and windows. Standards are like that foundation. We need something to work towards but it is all just too much."

Perceptions of Scheduling: MS3 notes that "Scheduling- it should be mixed to ensure that students are seen. I used to think that flexible scheduling was the only way. A colleague and I convinced my school to change the model and they did. With all the pressure that the teachers have to cover the curriculum, no one came in. Now I advocate for a mixed approach – some fixed, some unfixed. That way I get to see everyone. It is such a different experience to see everyone rather than have your own classroom with locked door. I see everyone. You would be surprised how many children do not know their own name." I have to encourage teachers to say students' names. Hyphenated names, long names, many names . . . still children need to know their name. I say children's names so that they will learn them. That is another advantage of seeing the entire school."

Perceptions of Survey Questions: The items are fine. The language is neutral. I see the themes. I recommend that you mix up the questions. The problem is will FSLMS have the time to take it. If you could shorten it that would probably be better.

FOCUS GROUP MS4, MS 5, MS6 and MS7:
The focus group was done with 2 AC and 2 TC FSLMS from the same school district.
Demographics:
Gender: 4 Female
Race: 4 White
Age: 2 45-55, 2 55-65
Certification Route: 2 AC, 2 TC
Perceptions on Certification:
According to the TC FSLMS the route to certification does matter. One TC FSLMS said, "I respect my colleagues but I feel slighted that they (AC FSLMS) have the same jobs and not the same background. They (AC FSLMS) teacher information – research and that's it. I know that there are other elements of my job and do them." The AC is the group is former teachers who passed the FCTE exam as a method of certification. One of AC FSLMS noted, "I don't know what I don't know so maybe it is easier for me." Another AC FSLMS notes that they all work together and the collegiality between the 4 of them improves their practice.

Perceptions of Collaboration:
One of the TC FSLMS notes “People don’t know what we are what we are here to do. Here at the conference, the theme is about doing PR for your job. But that is a whole other level of engagement in addition to everything else you have to do.”

Perceptions of Survey Questions: One FSLMS thought "The items are great. They speak to the parts of the SLMS job." Another indicated, "There should be a wide variety of responses because people will respond differently. I felt a lot differently about leadership when I first started than I do now. There are always a variety of thoughts of what we do anyway. We all agree but when we get here, you can see how diverse the media specialists are."

Appendix N: Found Poem Example of Data Analysis

Resistance

back in the day
I haven't gotten into the real world
one of the librarians on campus, without me really even knowing
You know they just blind sighted me.
I have no idea why they decided they wanted me to . . . why they were looking after me.
It was just one of those things, you know, who knows?
working at the public library as a reference librarian, outreach, drove the book mobile in the mountains of North Carolina and then a children's specialist
I am so old now; it's hard to think.
Um, marriage broke up, I needed a job that would accommodate my kids so
I snagged a job as an elementary school librarian.
So that how I got there
musicology and library science

We are not considered essential.

My principal never stepped into my library unless he needed something last year. He was brand new principal, first year principal.
I said, "This is the problem, he was working his way up the ladder. Fast track. He is 30. "They are pushing the talent up." and he was working his way.
"Listen, I want to talk to you about something. I said, "You can decide what I do here but you need to know what I do here before you make that decision." I said "I am not just somebody that just reads stories to kids. I think you'll find that out if you pay attention. You know you have to be frank with these people and I am old enough to say that I don't care what I say now.

What happens in my library happens only because I make sure it happens.

The assistant principal who was kind of a . . . she was a student principal. She was practicing and when she came in to observe me my students had little questions in their little hands. They knew they were coming and it was questions like "Ms. Alfred, what does Ms. Newsome need to know about how important library information skills are to students in third grade. After a while, (chuckle) it took her a couple of times before she realized the questions were planted. It was meant to get her to laugh and quit taking herself so seriously. And that girl took over as the principal the very next year. It was a disaster. She made it through one year and had a nervous breakdown and was bucked back to teacher. It was just a very sad thing.

What did Thomas Jefferson say "An educated public is essential for a democracy." Is that would he said?

the head of a major department threatened me at a school board meeting when I was speaking about it. Took me aside and said "If you know what's good for you, you will not talk about the middle school thing this time." He said that.

Well let me tell you, my supervisor, we nominated her for the state professional organization award. The same man that bullied me bullied her.

So this man comes up to me. I am waiting to speak. I have my notes. He says, "Are you Ms. Alfred?" and I said, "Yes." And he says, "I need to speak to you." He takes me out in the hallway. He says, "I need to know what you are going to say." Didn't introduce himself, nothing. I don't know who he is. Alright. He has an attitude already I can tell but good news is I am here and he is here. He said, "Well I need to see what you are reading. You can only read the Proclamation." I said, "Well, I have notes about each one of them. I have been to these things and I see that people say nice things about them and they shake the hands." So he says "You can't do that; you have to read the Proclamation." I say "You mean I can't even explain why they are here and why they were chosen?" and he says, "No, you have to read the Proclamation. Let me see what you are reading?" He took my notes, started looking through it. He is trying to push me back in this recess, he is trying to maneuver me back in there and I am not moving. Finally he says "You can't read all this."
"he goes "If you know what is good for you, you will not mention the middle school thing." That is exactly what he said. That's when I backed him up the wall. I said, "Listen, I told you what I am here for. I am here to present these people." I said, "I am not here to talk about the middle school thing. I will do that at the public speaking time. But if you have trouble with librarians advocating for quality library programs in our county, you need to tell me now." He said, "If you are the one that is encouraging these librarians to talk, you are going to be sorry.

Why don't they know?

Because not many people will speak up
It is like the bishop, cardinal and the pope. The pope has no idea that almost all the Catholic women are on birth control.

Appendix O: IRB Training

CITI Collaborative Institutional Training Initiative

Human Research Curriculum Completion Report
Printed on 1/24/2011

Learner: Jozan Powell (username: jmpowel3)
Institution: University of South Florida
Contact Information 2102 Rottwell Court
Brandon, FL 33510
Department: College of Education
Phone: (678) 739-8689
Email: jmpowel3@usf.edu
Social / Behavioral Investigators and Key Personnel:

Stage 2. Refresher Course Passed on 01/24/11 (Ref # 5502944)

Required Modules	Date Completed	
SBR 101 REFRESHER MODULE 1. History and Ethics	01/23/11	5/5 (100%)
SBR 101 REFRESHER MODULE 2. Regulatory Overview	01/23/11	5/5 (100%)
SBR 101 REFRESHER MODULE 3. Fundamental Issues.	01/23/11	4/5 (80%)
SBR 101 REFRESHER MODULE 4. Vulnerable Subjects	01/23/11	3/4 (75%)
SBR 101 REFRESHER MODULE 5. Additional Topics	01/23/11	5/5 (100%)
How to Complete The CITI Refresher Course and Receive the Completion Report	01/23/11	no quiz
SBR 201 Introduction	01/23/11	no quiz
Undue Influence	01/23/11	1/1 (100%)
Research Activities Eligible for Exemption	01/23/11	1/1 (100%)
Privacy vs Confidentiality in Social & Behavioral Research	01/24/11	1/1 (100%)
Assessing Risk in Social & Behavioral Research	01/24/11	1/1 (100%)
Social and Behavioral Research With Prisoners	01/24/11	1/1 (100%)
Completing the SBR 201 Refresher Course	01/24/11	no quiz
Defining Research with Human Subjects	01/24/11	1/1 (100%)

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be

considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Course Coordinator

Return

Appendix P: IRB Approval Letter

USF
UNIVERSITY OF SOUTH FLORIDA

DIVISION OF RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-5618

December 18, 2012

Jozan Powell
2102 Rottwell Court
Brandon, FL 33510

RE: **Expedited Approval** for Initial Review
IRB#: Pro00000042
Title: School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

Dear Ms. Powell:

On 12/18/2012 the Institutional Review Board (IRB) reviewed and **APPROVED** the above referenced protocol. Please note that your approval for this study will expire on 12/18/2013.

Approved Items:
Protocol Document(s):
School Library Media Specialists' Perceptions of Collaboration, Leadership and Technology

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review categories:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your study qualifies for a waiver of the requirements for the documentation of informed consent as outlined in the federal regulations at 45CFR46.117 (c) which states that an IRB may waive the requirement for the investigator to obtain a signed consent form for some or all subjects if it finds either: (1) that the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of

confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern; or (2) that the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John A Schinka, Ph.D.

John Schinka, Ph.D., Chairperson
USF Institutional Review Board

About the Author

Jozan M. Powell received her Bachelor of Arts degree in English and a Master of Arts in Secondary School Instruction from Hampton University. She earned a Master's in Educational Leadership at Bank Street Graduate School. She spent four years as a teacher for grades seven and eight. Her higher education professional experiences include coordination of a professional development program for STEM undergraduate and graduate students and work as a trainer at the Florida Center for Technology. She worked as a district level eLearning Specialist at Atlanta Public Schools and Technology Integration Trainer at Pennsylvania Public Schools. At Clayton County Public Schools, she served as a School Improvement Specialist for Instructional Technology and Data Analyst. Throughout her professional experiences, she has worked closely with SLMS. For example, she has done extensive instructional technology with this group, implemented district based programs and done collaborative research to investigate the conditions of the SLMS in schools. She is currently a doctoral candidate at the University of South Florida College of Education. Jozan is interested perceptions of SLMS in public school K-12 learning communities, blended learning and emancipatory pedagogy.