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Promoting Information Literacy through Teacher - School Library Media Specialist Collaboration

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COLLEGE OF EDUCATION

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2015

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MA, Valdosta State University, 2004

BS, Brewton Parker College, 1996

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Schools that support collaboration between teachers and school library media specialists (SLMS) outperform those that do not. Teachers at a rural Georgia middle school were not using the library media program or being trained on how to collaborate with the SLMS to promote student achievement. Guided by Bruner's socioconstructivist theory of learning, the purpose of this descriptive case study was to investigate teachers' experiences with integrating technology and information literacy into the curriculum and to examine the collaborative services the SLMS could provide to enhance integration. Eight teachers in Grades 6th through 8th comprised the sample. Data sources included teacher lesson plans and interviews. Data analysis included line-by-line coding of interviews and lesson plans to generate themes. According to study results, teachers were limiting the integration of technology and information literacy into the curriculum because of their lack of awareness of the SLMS's role as an instructional partner, students' lack of information literacy skills, fear, and time constraints. The resulting project was a series of professional development sessions to increase awareness among teachers of the role of the SLMS as an instructional partner in promoting technology use and information literacy among students. This project may facilitate social change by promoting a collaborative culture as teachers and SLMS work together to expose students to information literacy and technology, ultimately creating students who are skillful researchers and critical thinkers, better prepared for lifelong learning.

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Dedication

This dissertation is dedicated to my Lord and Savior, Jesus Christ. I could not have written this study without the knowledge and endurance He has provided me. When I believed I could not complete the project and wanted to give up, it was to Him I turned for strength and guidance.

I also dedicate this study to my daughter, Emily, whom I love with all my heart. She has served as my source of inspiration throughout this process. Through this achievement, I hope she realizes the value of education and that a doctoral degree is attainable.

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Section 1: The Problem

Introduction

School administrators and staff might not fully understand the possibilities afforded by collaboration between teachers and the school library media specialist (SLMS) in driving school improvement (Steele, 2015; Zmuda & Harada, 2008). Doll (2005) reported that because some teachers do not understand the role of the SLMS or see the potential benefits of collaborating, the SLMS is often not included in the teaching process. According to the American Association of School Librarians (AASL, 2009a) the SLMS should be planning, delivering, and assessing instruction in collaboration with classroom teachers. The AASL and Association for Educational Communications and Technology (AECT, 1998) considered SLMS as serving as instructional partners in learning and teaching; SLMS are vital to the learning community as they lead the collaborative efforts between themselves and teachers. As Taylor (2006) asserted, the SLMS knows how to integrate information literacy into the curriculum to enhance learning, and the classroom teacher knows the students' learning styles and ability levels.

Teachers should teach the standards that students need to thrive in the 21st century in collaboration with the SLMS and in the context of content learning (AASL, 2009a). With the nationwide budget crisis, SLMS must be able to demonstrate to politicians, administrators, teachers, and parents how a quality library media program will enhance student achievement (Gruenthal, 2012; Martin, 2009). SLMS need a plan of how they will promote and advocate for a quality media program in their schools (Jensen, 2008; Kramer & Diekman, 2010; Vanneman, 2007).

Definition of the Problem

Teachers at Grace County Middle School (GCMS) were not using the library

media program. The SLMS encouraged this collaborative effort but encountered

resistance among staff. There were many possible factors contributing to why teachers

were not using the library media program, among which were a teach-to-the-test mindset,

time constraints, a lack of training on collaborative teaching with the SLMS, and a sense

of low self-efficacy regarding teachers' ability to integrate inquiry-based projects and

information literacy into the curriculum (Donham, 2008; Frazier, 2010). Although

collaborative planning is not a new concept, teachers and administrators were not being

trained to collaborate with the SLMS or being taught how integral the library media

program is to the total school program and student achievement (Doll, 2005; Donham,

2008; Lance, Rodney, & Schwarz, 2010; Loertscher & Todd, 2003). The lack of use of

the library media program affected students at GCMS because they were not meeting

standards on the Eighth Grade Technology Literacy Test or the Georgia Grade 8 Writing

Assessment. Further, the majority of students in Grades 6 through 8 demonstrated

minimal mastery in reading and English language arts as measured by the Criterion

Referenced Competency Test (CRCT; Georgia Department of Education, 2012).

Rationale

Evidence of the Problem at the Local Level

Despite the scope or availability of the media center's resources, underuse of the

media center is a weakness in many schools (Good School Libraries, 2006), including

GCMS. Student participation in the school's library media program was limited almost

entirely to checking out books for their Accelerated Reader goals. According to the media center's schedule of classes, only three out of 29 teachers used the media center with their students to teach information literacy skills during the 2011-2012 school year. Those teachers who required students to conduct research during classroom instructional time used only the computer labs. This lack of use of the media center could not be explained by a lack of or outdated resources as defined by the AASL and the state of Georgia. The media center currently holds 8,655 books in its book collection alone, which translates to 22.31 books per student; the books in the nonfiction section are an average of 7-years-old. The school also has access to Galileo, a free online database that students are unfamiliar. Galileo, which is provided by the Georgia Department of Education to Georgia schools, includes access to subscription-only journals that patrons cannot obtain through the Internet's free search engines.

While 94% of students met standards in reading and English language arts (ELA), 78% missed a high percentage of questions causing them to not meet or minimally meet the standards as opposed to exceeding them. According to the 2012 CRCT (Georgia Department of Education, 2012), as shown in Table 1, in the areas of reading and ELA, sixth grade students missed 26% of the literary comprehension questions, seventh graders missed 32% of the questions, and eighth graders missed 22% of the questions. In the domain of reading skills and vocabulary acquisition, students missed 40% of questions in sixth grade, 30% in seventh, and 33% in eighth grade. Information and media literacy was also an area of weakness with 25% of questions missed by students in sixth grade,

32% in seventh, and 25% in eighth grade. In the area of research and writing, students missed 25% of questions in sixth grade, 17% in seventh grade, and 16% in eighth grade.

Table 1

Percentage of Questions Missed on 2012 CRCT in Reading

Domain	6th	7th	8th
Literary Comprehension	26	32	22
Reading Skills & Vocabulary	40	30	33
Information & Media Literacy	25	32	25
Research & Writing	25	17	16

A high percentage of students did not meet standards in science and social studies on the 2012 CRCT as shown in Table 2 (Georgia Department of Education, 2012). Thirty percent of students in sixth grade, 11% in seventh, and 36% in eighth did not meet state standards in science. Forty-five percent of students in sixth and seventh grade and 31% in eighth grade did not meet state standards in social studies. According to Smith (personal communication, September 26, 2012), principal at GCMS, "Our goal is to increase the percentage of students exceeding state standards in all subject areas on the CRCT through the design of rigorous instruction to better equip them in meeting the challenges of the high school curriculum and beyond."

Table 2

Percentage of Students Who Did Not Meet Standards on 2012 CRCT in Science and

Social Studies

	6th	7th	8th
Science	30	11	36
Social Studies	45	45	31

      The Common Core Standards require sixth, seventh, and eighth grade students to use research and technology to support writing. Middle school students are expected to produce research-based products in a variety of formats, including multimedia presentations. Students scored below the state average on the 2012 Georgia Eighth Grade Writing Assessment with 29% not meeting minimum required standards as shown in Table 3.

Table 3

2012 Georgia Grade 8 Writing Assessment

	School	*State*
Mean Scale Score	206	216
Did Not Meet Standards	29%	18%
Met Standards	71%	75%
Exceeded Standards	1%	7%

Fifty percent of eighth grade students at GCMS did not meet minimum required standards on the 2012 Georgia Eighth Grade Technology Literacy Test. According to scores on the technology literacy test, students (54%) do not know how to use technology to locate, evaluate, collect, and process information from various sources. Forty-five percent of students also had difficulty evaluating resources to determine the most appropriate tool to use for accomplishing a specific task. Sixty-eight percent of students could not identify appropriate technology tools and resources by evaluating the accuracy, appropriateness, and bias of the resource. Fifty-four percent of students also showed weaknesses in using technology resources for solving problems and making informed decisions. Researchers have shown (Doll, 2005; Smith, Petty, & Day, 2008; Taylor, 2006) that time constraints prevent teachers from integrating technology into the curriculum. Because teachers are under time constraints to get content standards taught in preparation for high stakes tests, they often believe there is no time left to focus on research and technology-based projects. However, teachers do not have to compromise teaching content standards if they take a constructivist approach and have students complete two to three extended projects saturated with knowledge, facts, and skills (Anderson, Grant, & Speck, 2008).

The information literacy statistics for GCMS cannot be explained by a lack of either technology resources or a highly qualified school librarian. According to Barnett (2009), both elements are essential to support a school's curriculum. According to a technology inventory taken in 2011 at GCMS for the purpose of updating the school system's 3-year technology plan, each classroom is equipped with Internet access, four

student desktop computers, one teacher laptop, an interactive white board, a data projector, a class set of student response handheld clickers, a document camera, and a scanner. Each grade has one shared network printer. There is also a computer lab available for each grade (sixth, seventh, and eighth) equipped with 28 computers, interactive white board, data projector, and network printer. Teachers may sign up to use the media center, which has nine desktop computers, five laptops, two network printers, scanner, document camera, data projector, and interactive white board. According to inventory statistics collected from the media center database, each teacher could check out an additional five laptops for student use in the classroom. Acquiring technology is not enough. Libraries and classrooms need to be instructional laboratories where teachers support students as they inquire, investigate, evaluate information in all its formats, and make connections between what they are learning and real world situations (Davis, 2009; Logan, 2008).

Evidence of the Problem at the State Level

Ragle (2009) found that Georgia high school teachers' perceptions of the importance of the role of the SLMS were significantly higher than the actual practices of those roles and responsibilities. Overall, teachers identified "instructional consultant" as the least important responsibility and the least practiced role of the SLMS. Ragle concluded that Georgia high school teachers do not believe the SLMS should help them teach lessons or evaluate student work; however, teachers did indicate that the use of technology is the most needed and most practiced role of the SLMS.

Martin (2011) found that 117 SLMS in Georgia school districts rated their leadership role as important. However, their actual practice of leading did not correlate to this perception of importance. While SLMS believed leading was important, they did not carry out this role at a corresponding level. Administration of the library program was the highest rated perceived and practiced role of the SLMS. Although SLMS considered themselves as instructional partners, they only practiced this role to a moderate degree. SLMS also stated that developing and maintaining a media advocacy program was important; yet, they did not advocate for the media program often. Teachers stated that while they believed collaboration to be important, barriers such as lack of time and administrative support inhibit them from doing so (Martin, 2011). Due to state budget cuts, collaboration is difficult. With the elimination of funding for school library paraprofessionals in Georgia, SLMS must assume clerical duties such as checking out books, answering the telephone, laminating, and shelving and processing books. This leaves no uninterrupted time for collaboration (Martin, 2011).

Warner (2010) found that elementary students in Southeast Georgia who used the media center on a fixed schedule had slightly higher mean scores on the CRCT than those whose teachers were on a flexible schedule. Moreover, teachers who asked the SLMS to teach literacy and research skills had students who scored higher than those who did not request instruction. Warner found that when teachers can choose when and if they bring students to the media center, they use the media center less often as other curriculum demands take precedence. This does not imply teachers should be required to use the media center, but rather that teachers recognize the value of the media center to

improving student achievement and supporting curriculum demands. Warner suggested

that the SLMS must take the lead in demonstrating to teachers how he or she can help

with student achievement as an instructional partner.

Georgia began implementing the Common Core Curriculum standards in Grades

K-12 during 2012-2013. With these standards comes a focus on inquiry-based learning

and integrating information literacy standards throughout the content areas. Teachers who

have little to no experience integrating information literacy into the standards must be

taught how and why the teacher and librarian collaborative relationship is critical in this

process (Montiel-Overall, 2010).

Evidence of the Problem at the National Level

Principals and teachers are unaware of the SLMS's role as an instructional

partner. Exploring the source of principals' perceptions of the SLMS's role, Church

(2008) found that only 1.8% of principals were educated on the role of the SLMS, and

26.4% of newly hired principals formed perceptions based on their experiences with the

SLMS during their teaching careers. Most principals (65.5%) derive their perceptions of

the SLMS from their positive or negative interactions with the SLMS during their

administrative careers. Just as principals are unaware of the role of the SLMS, some

teachers are unaware of librarian guidelines that require them to collaborate and integrate

information literacy standards into the curriculum (Montiel-Overall, 2010).

Schools that support media programs outperform those that do not (Francis &

Lance, 2011; Lance 2002; Lance, Rodney, & Hamilton-Pennell, 2000). Friesen (2010)

found that, because of the national emphasis on standardized exams, schools require

students to memorize facts and procedures instead of allowing time for inquiry learning. Friesen proved that students taught in a project-based learning environment, as supported by quality media programs, had higher standardized exam scores than students taught with more industrial era approaches. Lance et al. (2010) found that in schools with a principal who valued a media program, which included collaboration between the SLMS and teachers in the design and delivery of inquiry-based instruction, students consistently earned advanced scores on the Idaho state test in reading and language arts.

SLMS must promote their role as instructional partners or risk having the media program cut. According to Martin (2009), nationwide budget cuts have caused school libraries in Oregon and Washington to be at risk of closing unless SLMS promote the importance and connection between media programs and student achievement. In a national survey, 52% of SLMS stated that they have faced budget cuts or threats of eliminations (Ewbank, 2010). SLMS must promote and market their work and the school library media program to acquire advocates who see the media program as being indispensable in supporting information literacy (Johns, 2008).

Evidence of the Problem from the Professional Literature

To improve student performance through collaboration, the SLMS must take the initiative and raise teachers' and administrators' expectations of the media program and show the connection between information literacy, the content standards, and the skills students need in the 21st century (AASL & AECT, 1998; Harvey, 2008). To advocate for their role as instructional partners in educating information literate students, SLMS must promote their vision of collaborative teaching to educators in the school community

(Hickel, 2006; Lance, 2010). The SLMS must find ways to educate teachers and administration about what a quality media program looks like (Montiel-Overall, 2010). The SLMS must also provide evidence to the administration of the impact the media program has on student achievement (Jensen, 2008). According to Donham (2008), not all classroom instructors have embraced team teaching with the SLMS, as colleges are not preparing educators for this form of collaboration. Without knowledge of how SLMS can influence student achievement, new teachers see no reason to collaborate with them (Roux, 2008).

Because of the vast amounts of information available to learners and the increase in electronic sources of information, the AASL (2009a) has expanded the definition of information literacy to include visual, textual, and technological literacies. This information overload can be difficult for students to process and can interfere with their learning (Taylor, 2006). All teachers are responsible for integrating information literacy, such as digital information, into the curriculum (Anderson et al., 2008). As an instructional, informational, and technological leader, it is important that the SLMS help teachers integrate Internet tools into the curriculum effectively (Baumbach, 2009).

SLMS must help teachers teach information literacy in all formats of text. Cleveland (2007) stated that because of pressure put on schools to perform well on standardized state tests, many teachers are testing reading more than they are allowing students to practice reading. The classroom teacher is not solely responsible for teaching reading. Librarians are also reading teachers and must help students match information literacy strategies to the resources they are investigating, whether they are digital or print,

when reading to learn (Loertscher, 2010). Therefore, the SLMS must promote to the faculty the role that he or she and the library can play in teaching literacy (Cleveland, 2007).

Definitions

Collaboration: The SLMS and teachers working together to plan for, design, teach, and evaluate instructional activities for students (Doll, 2005).

Information literacy: The ability to access high-quality information from diverse perspectives, make sense of it to draw conclusions or create new knowledge, and share that knowledge with others (AASL, 2009a).

School library media specialist (SLMS): The SLMS, formerly known as the librarian, who acts as teacher, instructional partner, information specialist, and program administrator linking the learning community to information resources (AASL & AECT, 1998).

Twenty-first century learning: "The teaching of core subjects is interwoven with 21st-century interdisciplinary themes; learning and innovation skills; life and career skills; and information, media, and technology skills" (AASL, 2009a, p. 9).

Significance

With the focus on high stakes testing, coupled with budget cuts and reductions in personnel, SLMS must demonstrate to leaders and decision makers at the local, state, and national level the impact of media programs on student achievement or risk having the programs cut (Martin, 2009). The goal of this case study was to examine teachers' experiences with integrating information literacy skills and student use of technology into

the curriculum. This study provided educators with possible collaborative strategies between teachers and the SLMS that might enhance this integration and lead to increased student achievement.

GCMS is participating in a pilot study of Georgia's new Teacher Keys Effectiveness System. This full year pilot study will be used to evaluate teachers based on how well students perform on the end-of-year state exams (Georgia Department of Education, 2012). According to the Teacher Keys Effectiveness System, students complete surveys based on the varied instructional practices of their teachers, and the results are included in the teachers' annual evaluation. Providing data to identify teachers' experiences with integrating information literacy skills and student use of technology into the curriculum and offering possible strategies to enhance that implementation will empower teachers to incorporate the library media program into the curriculum. This incorporation of the library media program into the curriculum will enhance teachers' inclusion of differentiated instruction and assessments into their lessons supporting student achievement. Lance et al. (2010) found that collaboration between teachers and the SLMS is essential in influencing student achievement.

As required by the Teacher Keys Evaluation Effectiveness System, teachers must also demonstrate to administrators that they have created a student-centered academic environment where students are self-directed learners. According to Kuhlthau and Maniotes (2010), for students to succeed in a 21st century information-rich environment, they must be able to access and synthesize information to create meaning and understanding, but need support from their teachers working in collaboration with the

SLMS. In this scenario, the SLMS serves as an information literacy specialist. Teachers, in conjunction with the SLMS, must help students become lifelong learners able to synthesize information, solve problems, work through a process, and practice skills through inquiry-based, technology-infused projects and activities or risk falling behind their global peers (Byrne, 2009; Heider, 2009; Johnson, 2006). While students must leave school with knowledge and skills, they must also possess certain dispositions, driven by inquiry that help them to learn on their own, whether they are entering the work force or college (Donham, 2007). A library media program is structured so that these dispositions can be nurtured through collaborative, well-developed assignments that require students to pose deep questions, evaluate sources, think strategically, problem solve, and self-assess (AASL, 2009a). The AASL (2008) stated, "School library programs contribute to both formal school-based learning and learning throughout a lifetime" (p. 8). Implementing a successful library media program that enhances students' 21st century learning skills is imperative in developing students who can think conceptually and compete in a global society (AASL, 2009a).

Guiding/Research Questions

This qualitative case study was guided by the following research questions:

1. What were teachers' experiences with incorporating information literacy skills into the curriculum?

2. What were teachers' experiences with integrating student use of technology into the curriculum?

3.   What were the collaborative services the SLMS could provide to enhance teachers' integration of information literacy skills and student use of technology into the curriculum?

Schools with library media programs where the SLMS collaborates with teachers outperform those schools where teachers and the SLMS do not collaborate. Yet the role of the SLMS and how he or she can contribute to student learning and school improvement goals is not widely known by teachers and administrators. Schools often experience a culture where autonomy is the norm and teachers do not seek instructional help from others in the school. To produce students who are ready for work and learning in the 21st century beyond their K-12 years, SLMS must begin advocating for enhanced use of the library media program or risk having the program cut.

With the focus on standardized testing and Common Core Curriculum standards, the integration of information literacy skills and student use of technology into the curriculum needs to be analyzed at GCMS to help meet school improvement goals. The SLMS can be instrumental in helping teachers prepare students for the 21st century through the integration of information literacy skills and student use of technology. Researchers have illustrated common barriers teachers experience in collaborating with the SLMS. To facilitate teacher collaboration with the SLMS to support the curriculum, it is necessary to understand the experiences of teachers at GCMS in integrating information literacy and student use of technology into lessons.

Review of the Literature

In conducting the review of literature, I used Walden's Library Portal to search the

EBSCO and Academic Premier Search databases. I included the search terms *school*

library media specialist in combination with *role*, *collaboration*, *inquiry-based learning*,

information literacy, *technology*, *advocacy*, and *barriers*. The parameters of the search

included articles from within the last 5 years of the time of the research. I also included

data from print journals and textbooks.

The literature review includes an examination of the role of the SLMS as an

instructional partner, the conceptual framework by which media programs function, and

implications for the study.

Introduction

SLMS and teachers collaborate to meet the needs of all learners. According to the

AASL (1998), collaboration between the SLMS and teachers strengthens the efforts of

the total school program. To advocate for the library media program, the SLMS must

align his or her vision of the program with school goals, communicate that vision to the

staff, and demonstrate knowledge in teaching and learning (Levitov, 2007; Ray, 2015).

The No Child Left Behind Act encourages content teachers to collaborate with other

specialists in the school to ensure the success of all students (Cantor, Voytecki, Zambone,

& Jones, 2011; Georgia Department of Education, 2008). According to the Georgia

Library Media Association and Georgia Library Association (2014), exemplary SLMS

actively plan, implement, and assess instructional units, fostering inquiry and critical

thinking giving consideration to student needs, abilities, and learning styles.

SLMS's most important role is that of instructional partner. According to the AASL (2009a), the roles of the SLMS are shifting in their order of importance. In the past, SLMS ranked their role as teacher as most important. In this role, they worked alone to teach isolated library lessons to students as a class or on an individual basis. However, more recently SLMS recognize as top priority their role as an instructional partner working with classroom teachers to meet curriculum and literacy standards and to increase student achievement. This instructional partner role is followed by information specialist, teacher, and program administrator, with the role of leader serving as an umbrella for the other roles (AASL, 2009a,). Within these roles, guidelines for library media programs require SLMS to promote collaboration, encourage lifelong learning, promote reading, provide instruction targeting multiple literacies, model inquiry-based learning, and guide the assessment of the media program and its effects on student learning (AASL, 2009a, p. 19).

School Library Media Specialist as Instructional Partner

The role of the SLMS as an instructional partner includes promoting collaboration to demonstrate how the library media program can increase student achievement. This collaboration between the SLMS and teachers includes designing instruction, promoting reading, promoting inquiry-based learning, and evaluating the collaborative process through the assessment of student learning.

Promotes collaboration. The SLMS must lead and promote collaborative efforts, as administrators are often unaware of the impact the media program has on student achievement. In a survey of respondents in 16 states who have been involved in school

library impact studies, Kaplan (2010) found that these studies (Lance, 2002; Lance et al., 2000; Lance et al., 2010) have not made their way into the hands of principals and key decision makers. Instead, the data remain in the hands of the library community and have made little to no impact on changing the way schools view the SLMS or the library media program in facilitating student learning. Madras (2008) agreed that administrators are unaware of the impact of media programs on student achievement. It is the responsibility of the SLMS to show decision makers the value of the program by providing the published research along with his or her own data collected from lessons taught and assessed (Little, 2015; Madras 2008).

If administrators are to perceive the library media program as an asset to the school's instructional program, they must see the SLMS leading, collaborating, and teaching (Cooper & Bray, 2011). Lamb and Johnson (2008) stated that SLMS find it difficult to meet with busy administrators, yet they need their support to move the program forward. Kaaland and Nickerson (2010) agreed that administrators are not aware of the role of the SLMS as an instructional partner, and it is hard to find time to meet with them. Kaaland and Nickerson suggested that SLMS send school administrators reports that include what they are doing with teachers, students, and technology in helping meet school improvement goals. The SLMS should also speak at grade level and faculty meetings to give updates on media resources and services.

Collaboration promoted by the SLMS helps create a school culture where everyone works together to increase student achievement. However, teachers in most schools experience a culture where autonomy is the norm (Levin & Marcus, 2007;

Wallace & Husid, 2012). Asking help from someone or offering suggestions to another

teacher makes teachers feel uncomfortable and causes them to lower their standards when

faced with instructional challenges. Teachers are often afraid of collaborative teaching as

their peers might judge them harshly once their instructional weaknesses are exposed

(Levin & Marcus, 2007). Chenoweth (2009) and Loertscher (2014) agreed that it is

common for teachers to teach in isolation, which can be detrimental to student success.

Teachers benefit and learn from thinking together through a collective dialogue of diverse

perspectives, supporting one another rather than judging and creating a safe environment

for tackling instructional challenges (Canter et al., 2011; Game & Metcalfe, 2009).

Effective SLMS reach beyond the media center in an effort to promote

collaboration. According to the AASL and the Association for Educational

Communications and Technology (AASL & AECT, 1998), it is important for the media

specialist to establish relationships that open the lines of communication and support

collaboration efforts. Opportunities for collaboration and communication exist if the

SLMS participates in activities generally designated for classroom teachers, such as

attending grade level or subject area meetings, serving on committees, and participating

in and presenting staff development activities (Burk, 2007; Frazier, 2010; Rosenfield,

2007). SLMS must become familiar with their teachers' personalities, teaching styles, and

experiences to better offer support and guidance (Abilock, Harada, & Fontichiaro, 2013;

Hickel, 2006; Taylor, 2006). SLMS should also target and encourage all teachers to

collaborate, but should not expect to collaborate with everyone, especially those who

resist the collaboration efforts; instead, SLMS should focus their energy on those who

want to work with them and others might join when they see the accomplishments (Cooper, 2011). Hickel (2006) and Luhtala (2011) warned that engaging teachers in collaboration is a slow process.

In promoting collaboration, the SLMS must demonstrate to teachers how the library media program can help increase student achievement. Williamson, Archibald, and McGregor (2010) found that successful collaboration between teachers and SLMS depends on shared vision and goals. Because teachers say they do not use the media center for students to develop inquiry-based projects due to a shortage of time in preparing for high stakes testing, media specialists must help teachers plan lessons based on inquiry and skills that students will encounter on the state tests (Burk, 2007; Coatney, 2007). Teachers must see the value in teaching the topic as it relates to student progress and will be more willing to put forth effort in its implementation (Williamson et al., 2010). To increase collaboration and make the most use of time, SLMS should become familiar with curriculum maps and pacing guides in order to know what teachers are teaching and when and offer resources at the time of need so as not to overwhelm the teachers (Lamb & Johnson, 2008; Loertscher & Diggs, 2009). SLMS might also develop a list of collaborative activities based on the curriculum standards, noting the roles of the teacher, the students, and the media specialist so that all will know their responsibilities (Frazier, 2010).

Provides instruction addressing multiple literacies. Because of the vast amounts of information available to learners and the increase in electronic sources of information, the AASL (2009a) has expanded the definition of information literacy to

include visual, textual, and technological literacies. All teachers are responsible for integrating information literacy into the curriculum, and this includes digital information (Hughes-Hassell & Harada, 2007). Because this massive amount of information can be difficult for students to understand and can interfere with reading to learn, the SLMS must teach strategies for reading online text (Harvey, 2009; Ueker, Kelly, & Napierala, 2014). Based on constructivist learning, Stripling (2010) suggested that being able to read digital text is not enough for lifelong learning; instead, the SLMS should partner with teachers to teach digital inquiry where the learner connects with text, wonders, investigates questions, constructs new meaning, expresses ideas, and reflects on learning.

To incorporate information literacy into the curriculum, content teachers and the SLMS must come together with a shared vision, aligned with the school's mission, and an agreed-upon plan of learning outcomes that infuse information literacy with content knowledge (Brasley, 2008; Kiker, 2012;). The SLMS needs to know the content standards and the teacher needs to know how the SLMS can help with achieving curriculum goals. Both must agree upon the goals of the project and be able to communicate effectively with one another to work through any issues of implementation of the project that might arise (Brodie, 2007). The SLMS and teachers must first look at the test data to determine student weaknesses and develop plans accordingly to maximize student achievement. After developing a shared vocabulary, teachers and the SLMS can develop differentiated lessons that target information literacy and meet school improvement goals (Moreillon, 2008). Buzzeo (2010) declared that as teachers see scores

improve, administrators and teachers will recognize the value of collaborating with the SLMS.

Administrators and curriculum directors are coerced into buying technology tools and software programs that promise to improve academic achievement only to find resistance among staff in its implementation. The existence of technology alone will not increase learning; there must be a shared vision among teachers, administration, and the SLMS (Loertscher & Diggs, 2009). The SLMS knows how to match technology resources with curriculum needs to support instruction and student learning (Lamb & Johnson, 2008). Marcoux and Loertscher (2009) suggested that teachers, SLMS, and administrators look first at learner needs or deficits and then identify technology tools or software that will best meet those needs to differentiate teaching and learning. Technology must be implemented so that students know why they are using the technology, not just how to use it, and it should be used when it facilitates higher levels of thinking for students (Brooks, 2009). As an instructional, information, and technology leader, the SLMS helps teachers integrate those technology tools into the curriculum (Baumbach, 2009). Means (2010) found that when teachers had principal support and collaborated with colleagues when implementing new technologies, student-learning outcomes were greater. When trying to implement technology into the curriculum, teachers found transitioning to be too time-consuming and did not see its importance when the curriculum did not emphasize its use (Means, 2010).

Meeting the needs of diverse learners is no longer an option. Because the roles of the SLMS and the special education teacher are similar in that they both are to provide an

appropriate instructional environment and resources for students, there is an opportunity

for collaboration between the two that can increase student achievement (Jones,

Zambone, Canter, & Voytecki, 2010). Teachers can help meet the needs of students with

diverse abilities and backgrounds by collaborating with the SLMS on integrating assistive

technologies into the curriculum thus allowing the teacher more time to focus on content

(Brozo & Puckett, 2009). Adding another caring adult to the classroom, one who might

introduce a teaching style different from the content teacher, benefits all students as they

come with different learning styles (Harvey II, 2010). Adhering to best practices of

coteaching, the SLMS and teacher are able to divide the class and conduct two lessons at

once, allowing all students to receive support and feedback more often as the teacher to

student ratio is reduced (Kloo & Zigmund, 2008).

  Promotes reading. It is a challenge at the secondary level for teachers to design

appropriate inquiry-based projects and meet the information literacy standards as

described by the AASL and the AECT when students are not able to read informational

texts (Long, 2007). According to Long (2007), most content teachers at the secondary

level have had no training in teaching reading skills and can benefit from the

collaborative efforts of the SLMS. Reading comprehension is an area of concern for

schools at all grade levels; therefore, SLMS must help content teachers recognize the

connection between reading comprehension and information literacy (Loertscher, 2010;

Moreillon, 2008). The SLMS serves as the teacher's instructional partner by teaching

strategies for reading informational texts; ultimately, this can increase reading

achievement (Long, 2007; Uecker et al., 2014). Beard and Antrim (2010) revealed that

when teachers and SLMS matched students with text on their reading level, motivation to read and individual student reading levels increased by the end of the year. Researchers (Beard & Antrim, 2010) support collaboration between teachers and the SLMS in increasing information literacy among students.

Promotes inquiry-based learning. With the pressures of high stakes testing, teachers often find themselves telling students what to read, write, and think. If teachers want to produce students who can think and learn on their own, they must provide opportunities to do so through inquiry-based projects that require students to read and solve problems (Kowalski, 2009). According to Pentland (2010), teachers require no critical thinking from students when designing research projects that include copying and pasting facts into a *PowerPoint* presentation or brochure. Because information is available in vast amounts and students can find answers to questions quickly, they will accept the first information they find as being authoritative and credible and will not investigate further (Stripling, 2010). Teachers must create inquiry-based projects and allow students to ask and search for answers to deep questions important to them, leading to a more meaningful and lasting understanding of a topic (Diggs, 2009). Chu (2009) found that students who developed projects using an inquiry-based approach in collaboration with teachers and the SLMS outperformed those who did not. Although teachers stated that lack of time and added work were issues in implementing inquiry-based projects, they agreed that the benefits of student learning and increased motivation warranted continuation of the collaboration (Chu, 2009).

Students must go beyond fact-finding to develop critical thinking skills and evaluate the results of their research (Franklin & Stephens, 2010). According to the Partnership for 21st Century Skills (2010), employees must be able to think critically, communicate effectively, collaborate, and solve problems to keep pace with global competition (Partnership for 21st Century Skills, 2010). The Partnership for 21st Century Skills added that the development of these skills in combination with being proficient in reading, writing, and mathematics would better prepare students for entering the workforce. It is imperative that the SLMS work in collaboration with teachers and help develop lessons that are rich in 21st century skills and content, meeting the learning needs of the student and the instructional needs of the teacher (Pentland, 2010). If teachers perceive 21st century skills lessons as difficult to implement, student needs will not be met.

Researchers (Anderson et al., 2008; Brozo & Puckett, 2009; Frazier, 2010; Herring, 2011) suggested that using a research model, such as Big 6, that will be adopted throughout the school will help students build skills to become lifelong learners who read to learn. Eisenberg and Berkowitz (2004) suggested that the research process be broken down into six major steps. Teachers do not have to teach all the steps at once nor are the steps subject to a particular technology. Having a research guide in place decreases the research anxiety felt by teachers and students (Frazier, 2010). The major steps in the Big 6 (Eisenberg & Berkowitz, 2004) research process include

1. Defining the problem

2. Seeking information

3. Locating and accessing sources

4. Extracting information

5. Synthesizing information

6. Evaluating the results

Guided by the Big 6 research process and standards for the 21st century learner as set forth by the AASL (2009b), students must access information from a variety of sources, synthesize the information, and share the new knowledge with others. SLMS and teachers must realize that collaboration projects do not have to be of long duration. Teachers can develop mini lessons that target content and specific steps in the research process combined with information literacy standards (Burk, 2007).

Assesses student learning. According to the AASL and the AECT (1998), to bring about change, teachers must evaluate the results of the collaborative process. Evaluations might come in the form of portfolios, surveys, rubrics, collected data, or examination of unit plans. In efforts to validate the importance of the SLMS as affecting student achievement, Bacon (2008) suggested that SLMS collect data themselves. Formal collaboration done by the SLMS provides opportunities for data collection. The SLMS can use these data to chart the progress of collaboration units and then share results with the school (Woods, 2014).

Teachers who collaborate must be able to communicate with one another and be open to creative criticism regarding the delivery of instruction (Brodie, 2007). Hawley (2007) agreed, but noted that when teachers have to deal with conflicting philosophies of teaching and learning, many will be resistant to collaboration. Hawley also suggested

that, because of the time required to collaborate, teacher burnout and increased stress is

common (p. 61).

Challenges

Smith et al., found that protected planning time, quality professional development,

and administrative support are necessary elements for successful collaboration. Teachers

also need time to practice, implement, and reflect on strategies learned through

professional development (Smith et al., 2008). Moreillon (nd) found that exposure to

collaboration with the SLMS was beneficial to preservice teachers as this type of

collaboration was new to them. However, upon student teaching, the preservice teachers

encountered barriers to collaboration, including the reluctance to collaborate on the part

of the SLMS, a scripted reading program, and fixed schedules that did not allow the

teachers to meet with the SLMS. According to Hall and Simeral (2008), instructional

leaders should meet weekly for collaborative lesson planning and reflection to motivate

and encourage teachers to implement new strategies. Williamson et al. (2010) found

effective communication between the SLMS and teachers was a challenge during the

implementation of a collaborative project. Williamson et al. also found that teachers often

would be required to attend workshops or field trips during the same time they were to be

working on a collaborative unit. The absence of the teacher caused SLMS to teach

portions of the unit by themselves without the benefit of having the support of the content

expert (Williamson et al., 2010).

If the SLMS is going to help teachers and students integrate technology tools into

the curriculum to support 21st century learning, the SLMS must also be a practitioner

with the tools (Herring, 2011). According to Baumbach (2009), SLMS often lack the skills needed to collaborate with teachers on integrating technology into the curriculum. Baumbach found that over 30% of media specialists have never heard of online mapping tools, over 40% have never used podcasting, and less than 30% reported using these Web 2.0 tools for the library media program. Moreover, 70% or more had never taught anyone to create a blog, wiki, or podcast, or how to remix materials. According to Boehm, knowing how to manipulate hardware and software are the basics every student must know how to do before leaving high school. Teachers and SLMS must teach students how to use technology Web 2.0 tools to nurture creativity, collaborate globally, and learn. This will prepare them for the demands of future employment and give them a competitive edge over global peers (Boehm, 2009).

Due to budget cuts in staffing, the SLMS is not able to collaborate with teachers on instructional units rich in content, technology, and literacy skills as they are performing duties usually handled by support staff (Franklin & Stephens, 2010; Frazier, 2010). Regardless of budget cuts, teachers and SLMS are obligated to implement lessons incorporated with the AASL standards and increase academic achievement for students who might have limited access to technology and online resources (Franklin & Stephens, 2010).

Conceptual Framework

According to Bruner's theory of constructivism, learners are constantly creating new knowledge based on current or past learning (Kearsley, 2010). According to Kearsley, collaboration between the teacher and SLMS is supported by Bruner's

socioconstructivist theory of learning, whereby individuals construct meaning through

discussions of the issues or problems and the development of a solution. This

collaboration between the teacher and the SLMS would include identifying an

instructional deficit, planning a lesson, and assessing the instruction. Constructivists

believe that learners are more likely to generate new knowledge and become more

actively engaged when faced with the task of creating a product that highlights what they

have learned on a topic that has personal meaning to them (Grassian & Kaplowitz, 2009).

The guidelines set for school library media programs such as "encouraging

learners to be independent, lifelong users and producers of ideas and information" build

on the constructivist theory of learning (AASL, 2009a, p. 19). Furthermore, the tasks in

which students are asked to engage through library media programs require inquiry,

critical thinking, applying knowledge to new situations, constructing new knowledge, and

sharing that knowledge (AASL, 2009a). According to Donham (2008), constructivism

supports the tasks of the library media program; therefore, it is important that SLMS help

teachers develop lessons that target higher levels of learning where students locate,

analyze, and synthesize information.

Implications

Through this project, I created a picture of teachers' experiences with integrating

student use of technology and information literacy into the curriculum. According to

Loertscher and Todd (2003), "Collaborative planning is the area of the library media

program that many find the most difficult to implement" (p. 35). I developed a series of

professional development activities from the information gathered from interviews and

examinations of documents, to promote the SLMS's role as an instructional partner. Based upon research results, I offered strategies to overcome challenges to integrating technology and information literacy skills into the curriculum to create an enhanced use of the library media program and increase student achievement. This study will be beneficial to the following people:

1. SLMS who are experiencing a lack of collaborative teaching in their school will be able to use the study to incorporate the collaboration strategies to improve student learning. The SLMS will also be able to use this study to offer professional development to teachers on how to overcome barriers they encounter when trying to incorporate technology and information literacy into the curriculum.

2. New and veteran teachers will be able to use this study to educate themselves on the role of the SLMS as an instructional partner in incorporating information literacy and technology into differentiated, inquiry-based lessons.

3. Administrators will be able to use this study to educate themselves on the role of the SLMS as an instructional partner and the role of the media program as a component of school improvement goals.

Summary

Schools that support library media programs outperform those who do not (Francis & Lance, 2011; Lance, 2002; Lance et al., 2000)). However, teachers and administrators are unaware of the role the SLMS plays as an instructional partner in promoting student achievement and preparing students for learning beyond the school

years. With the national emphasis on standardized exams, teachers believe that they have

no time for inquiry-type learning activities as supported by the library media program

(Friesen, 2010). The SLMS must raise awareness among teachers and administrators of

how they can combine information literacy, the content standards, and the skills students

need in the 21st century; further, the SLMS must highlight the role of instructional

partner in making these connections (AASL & AECT, 1998; Harvey, 2008). In Section 1,

the local problem of the lack of use of the library media program in one rural middle

school was discussed. The role of the SLMS as an instructional partner and challenges

faced in the implementation of that role have also been explored.

Section 2 includes a description of the methodology and design, including a plan

for data collection and analysis. Included in Section 3 is a description of the project with

a plan for its implementation and evaluation. Section 4 includes my reflections on the

project's strengths and limitations; an analysis of myself as a scholar, practitioner, and

project developer; and my reflections on implications, applications, and directions for

future research.

Section 2: The Methodology

Introduction

Teachers at GCMS were not using the library media program. Although collaborative planning is not a new concept, teachers and administrators are not being trained to collaborate with the SLMS or taught how integral the library media program is to the total school program and the positive effects it can have on student achievement (Doll, 2005; Donham, 2008; Lance et al., 2010; Loertscher & Todd, 2003). This lack of use of the library media program affected students at GCMS because they were not meeting standards on the Eighth Grade Technology Literacy Test, the Georgia Eighth Grade Writing Assessment, or on the Criterion Referenced Competency Test (CRCT) in the areas of information literacy and research.

To understand why teachers are not using the library media program, I explored in depth teachers' experiences at GCMS with integrating information literacy skills and student use of technology into the curriculum to determine how the SLMS can better collaborate with teachers. According to Simons (2009), in a descriptive case study, the researcher chooses a case to explore an issue without the intention of going beyond that group to generalize findings. The research questions for the study are listed below:

1. What were teachers' experiences with incorporating information literacy skills into the curriculum?

2. What were teachers' experiences with integrating student use of technology into the curriculum?

3.   What were the collaborative services the SLMS could provide to enhance

teachers' integration of information literacy skills and student use of

technology into the curriculum?

Section 2 includes a description and justification for the research design and

approach, criteria for selecting participants, the data collection process, the role of the

researcher, data analysis techniques, and findings generated from the analysis to address

the local problem and inform the project.

Research and Design Approach

The purpose of this research was to promote information literacy through

collaboration between teachers and the SLMS to support student achievement. In this

study, I focused on describing GCMS's teachers' experiences with integrating student use

of technology and information literacy skills into the curriculum. This project study

derived logically from the use of a qualitative descriptive case study to understand the

multiple perspectives teachers have about integrating information literacy and student use

of technology into the curriculum at GCMS and then using that information to inform the

services provided to them by the SLMS (Simons, 2009). According to Hancock and

Algozzine (2006), "descriptive designs attempt to present a complete description of a

phenomenon within its context" (p. 33).

The case study was deemed as the appropriate methodology. According to

Simmons (2009), case studies are used "to generate in-depth understanding of a specific

topic . . . to inform professional practice" (p. 21). I purposefully chose the site in this

study to improve upon collaboration between teachers and the SLMS in integrating

information literacy skills and student use of technology into the curriculum to support

student achievement. This choice aligns with Merriam et al.'s (2002) criteria for a case

study in that it must be bounded by a purposefully chosen site and a common practice of

interest to the researcher. Creswell (2012) stated, "*Bounded* means that the case is

separated out for research in terms of time, place, or some physical boundaries" (p. 465).

Within qualitative case studies, the researcher is the primary data collector who

searches for understanding and produces findings using a series of illustrative

descriptions rich in detail (Creswell, 2012). I used analysis of the interviews to build rich

descriptions of teachers' experiences with integrating information literacy and student use

of technology into the curriculum. An analysis of 2012-2013 teacher lesson plans also

provided for a rich description of instruction at GCMS. This detail in case studies comes

from the use of quotes, prose, and anecdotes, which help to build a mental picture for the

reader (Hancock & Algozzine, 2006).

I investigated grounded theory and phenomenological studies and found them to

be inappropriate methodologies for this study. Grounded theory was not an appropriate

method of research for this project, as I was not trying to generate a specific theory

through the views of the participants as to the reason for the lack of use of the SLMS as

an instructional partner (Creswell, 2009). As phenomenological researchers investigate a

person's perception of what a lived experience is like, this approach was not suitable for

this project. The aim of the project was not to discover what the library media program

was like, but instead to understand teachers' experiences with integrating information

literacy and student use of technology into the curriculum, which the SLMS can enhance

through collaboration (Leedy & Ormrod, 2010). The phenomenological approach also

requires the researcher to spend an extensive amount of time with the participants to

develop meaning, whereas, in this study, I was bound by one semester of data collection

(Creswell, 2009).

Participants

The criteria for choosing participants for this project study included a

convenience sample of eight teachers at GCMS who taught in content or exploratory

classes (e.g., physical education, art, agriculture, and band) in the sixth through eighth

grades. Teachers volunteered to participate in the study. Choosing participants from

different subject areas enhanced the study, as they offered unique perspectives on their

experiences with integrating student use of technology and information literacy skills in

their fields (Merriam et al., 2002; Rubin & Rubin, 2005). According to Hatch (2002),

having just a few participants in the study allows more time for the researcher to spend

with each participant to obtain rich and detailed information. The rich interview data

allowed for the discovery of new and multiple themes (Rubin & Rubin, 2005).

To gain access to the participants, I requested verbal permission from the

principal of GCMS and followed up formally via e-mail. Upon approval from the

principal, I e-mailed the system superintendent a letter of cooperation for final

permission, as is protocol for the Grace County School System. All teachers at GCMS

received an e-mail requesting their participation in the study. As suggested by Rubin and

Rubin (2005), in this brief e-mail, I explained the purpose of the project and the

participant's importance in informing the school's media program of their experiences

with integrating information literacy skills and student use of technology into the curriculum. I informed participants that their involvement was voluntary and their interviews were confidential (Rubin & Rubin, 2005). Six teachers responded to the e-mail agreeing to participate in the study. I followed up in person with two participants who also agreed to participate in the study. Those teachers who agreed to volunteer for the study were given an informed consent form to sign confirming their participation in the study.

To ensure a positive researcher-participant relationship, I conveyed to participants the purpose of the study and clarified my role as the researcher and the participant's role. The study procedures and the length of time needed to conduct the interviews were also discussed. Participants were made aware that their participation was voluntary and that they could terminate their involvement at any time. I assured participants that all information would be confidential, and aliases would be used when reporting data so that participants could not be easily identified. At the beginning of each interview, I notified each participant that he or she could stop the research process at any time. During data collection, I periodically checked with participants on their level of comfort with the line of questioning (Hatch, 2002). At the conclusion of each interview, participants were given an opportunity to edit their comments and read the final transcript to check for accuracy (Simons, 2009).

The setting for the participants in the study consisted of teachers who ranged in experience from beginning teachers to veteran teachers with 30 years or more of experience. Teachers also ranged in education background from those who were certified

and highly qualified in the field they teach to teachers who were not certified and held degrees in fields other than education. I chose the site where I work as other schools' media program dynamics varied greatly and would not accurately address the local problem.

Data Collection

The interview was one source of data collection for this project as teachers' experiences with integrating student use of technology and information literacy skills into the curriculum cannot always be observed, but must be verbally expressed by the participant instead (Simons, 2009). I collected qualitative data through face-to-face, one-on-one, semistructured interviews (Appendix A). To ensure that the interview questions were reliable, I employed an interview protocol for asking questions and recording answers. This protocol included "instructions for the interviewer to follow so that standard procedures are used from one interview to another" (Creswell, 2009, p. 183). Eight teachers were interviewed at convenient locations and times. I set up one interview per day over a 2-week span. Participants were interviewed one time for 45-60 minutes during the second semester of the 2012-2013 school year. In-depth interviews were recorded via handwritten notes and audiotape. Interviews were transcribed verbatim from the audio tapes.

According to Creswell (2009), the advantages of interviewing participants include allowing the researcher control over the line of questioning. The research questions were used as a guide when interviewing participants regarding their experiences with the integration of information literacy skills and student use of technology into the

curriculum (Creswell, 2007; Hatch, 2002). Open-ended questions and probes for the

participants to elaborate on what they had said followed the research questions (Creswell,

2007). I also listened for and asked questions where I found gaps or omissions in the

participants' descriptions of their experiences with integrating information literacy skills

and technology into the curriculum (Rubin & Rubin 2005). The content of each interview

was examined to determine if follow up questions needed to be prepared for the

remaining participants that might lead to a better understanding of the problem or

expound upon the ideas that were emerging from the data (Rubin & Rubin, 2005). I

maintained an electronic research journal, which included brief descriptions of data

collection and my reflections on the experience organized by date and time spent in the

field. Data collected from interview transcripts were organized and stored electronically

in folders labeled with participant pseudonyms. Data were stored on my personal laptop

and a USB drive both of which were password protected. Handwritten notes were stored

in a notebook that was kept secure in my personal fireproof safe.

　　　　Data were also collected from 2012-2013 lesson plans. After I had eight

participants volunteer to be a part of the study, I asked GCMS's administration for access

to all teachers' 2012-2013 lesson plans, which they have on file. I asked for all teachers'

lesson plans to ensure participant confidentiality. I photocopied only those teachers'

lesson plans who participated in the study. One hundred and forty-four weekly lesson

plans were reviewed for analysis. Subject areas included English language arts, science,

social studies, math, and exploratory. All teachers used a lesson plan template as required

by administration. Every lesson plan included content standards, performance tasks,

assessments used, and resources needed to complete activities. According to Simons (2009), documents can help the researcher understand the culture of an organization. I crosschecked data from these documents with the interview data. The lesson plans helped me form a detailed description of instruction that included the integration of information literacy and student use of technology into the curriculum. Data from the documents were organized in a Word document, saved in folders, and stored on a password protected USB drive.

Researcher's Role

I have worked at the study site for 6 years as a language arts teacher and 7 years as the current SLMS. I hold no leadership role over the teachers at the school. My experience as a language arts teacher provided insight into the challenges of balancing the integration of information literacy skills and student use of technology into the curriculum while preparing students for state tests and managing student behavior. As a language arts teacher, I did not collaborate with the SLMS and was unaware of her role as an instructional partner. This bias strengthened the interpretation of the findings and enhanced the development of the project.

Although I was in constant contact with all teachers via e-mail, I had only collaborated with three current GCMS teachers, which included coplanning and coteaching lessons. As the SLMS, I was a nominee for Teacher of the Year as voted for by my peers, which supports the fact we have a positive working relationship. This relationship, coupled with my background as a classroom teacher, aided in data collection

as teachers saw I have empathy for them in their challenges with integrating information literacy skills and student use of technology into the curriculum.

Interviewing teachers about their experiences with integrating information literacy skills and student use of technology into the curriculum allowed me the opportunity to target one aspect of the media program for improvement and facilitate a series of professional learning activities centered on the findings. I conducted and transcribed interviews as well as analyzed data from documents. To maintain a positive relationship and ensure the participants were comfortable with the research process, I informed the participants of the details of the research study, including what the study was about, how long the study would take, and how the participants could prepare for the interviews as suggested by Hatch (2002). I obtained permission from the Institutional Review Board to protect the rights of human participants (Creswell, 2009). I proposed to present study results to participants, administration, and faculty in person during a faculty meeting. At the end of 5 years, I will shred all handwritten notes and delete all electronic media saved on my USB drive and personal laptop.

Data Analysis

I first sorted data by type and transcribed interviews to prepare for analysis. I read all data and reflected on their overall meaning. I did not look for key ideas to confirm or refute my initial ideas of teachers' experiences with integrating information literacy skills and student use of technology into the curriculum (Rubin & Rubin, 2005). As suggested by Creswell (2007), to analyze and interpret data, statements from the interviews were developed into themes. Microsoft Word was used to label and color code the data from

the interviews to create topic categories. An outline was generated to organize the

categories and show relationships among them. To reduce the list of categories to major

themes, those that were related were combined and recoded. These major themes guided

the writing of the findings and development of the project. The themes that were

identified most commonly by teachers, regarding their challenges with integrating

information literacy and student use of technology into the curriculum, guided the study.

A textural description, including quotations, was written to describe the participants'

experiences with integrating information literacy skills and student use of technology into

the curriculum (Creswell, 2009). Information literacy skills and student-centered

technology activities were found in the 2012-2013 lesson plans. I consulted Georgia's

information literacy standards for reading and writing in the content areas (Georgia

Department of Education, 2012) and the American Association of School Librarians'

Empowering Learners: Guidelines for School Library Media Programs and *Standards*

for the 21st-Century Learner in Action (2009b) to identify information literacy and

technology activities in the plans. The examples of information literacy integration found

in teacher lesson plans were crosschecked with the interview data to provide a detailed

description of instruction at GCMS.

Reliability and Validity

I ensured transcripts did not contain mistakes by listening to the complete

interview and proofreading the transcription simultaneously. Methods of quality control

included member checking of interviews where I submitted the rough draft of my

interpretations of the data collected during the interviews to the participants and asked

them to check that an accurate representation had been made (Creswell, 2009). Teachers

were asked to sign the draft and note any discrepancies they found in my interpretation

versus the actual integration of information literacy and technology at GCMS.

Participants were asked to make note if they did not believe the descriptions to be

complete, realistic, accurate, or fair as suggested by Creswell (2012). Teachers returned

all copies of drafts signed with no noted discrepancies. To add validity to the study, the

testing coordinator at GCMS served as a peer debriefer to discuss the accuracy of my

interpretation of the findings (Creswell, 2009). I met with the peer debriefer throughout

the data collection and analysis stages to determine if the findings were plausible based

on the raw data. While the peer debriefer did not find discrepancies between the raw data

and the findings, she did ask questions about the study that helped me clarify the

language used in the descriptions so that others outside SLMS would understand as

suggested by Creswell (2009). Rich, thick description was used when reporting data from

the interviews so that readers will be able to determine if the findings can be generalized

to their situation (Merriam & Associates, 2002). According to Creswell (2009), utilizing

multiple validity strategies adds to the accuracy of the study. No discrepancies arose

during the analysis.

Findings

The findings of the study are organized by research question. Research questions 1 and 2 contain descriptions derived from interviews and lesson plans regarding teachers' experiences with incorporating information literacy and student use of technology into the curriculum. Research question 3 contains themes from interview data regarding teachers' challenges with integrating information literacy and student use of technology to inform the collaborative services the SLMS could provide to enhance teachers' integration.

Research Question 1: What were teachers' experiences with incorporating information literacy skills into the curriculum?

The initial coding of the interview transcripts and lesson plans resulted in an emphasis among participants regarding teaching students how to determine the meaning of content specific vocabulary, organize text, summarize a source, and cite specific textual evidence to support analysis of a given text.

Content specific vocabulary. Using various strategies, teachers at GCMS focus on content vocabulary to fulfill guidelines set forth in the common core Georgia performance literacy standards to increase student achievement. Participants also revealed common strategies to teach vocabulary including the use of visual representations, thinking maps, and "ticket out the door". Participant 1 stated that students often lack content vocabulary learned in lower grades, making it more difficult for them to complete assignments at their grade level. To remediate students, Participant 1 explained that she teaches students the key terms they will need to master the standards

and follows up with vocabulary tests. According to Participant 1's lesson plans, she provided students with the meaning of the words, which they placed in their notes and she placed on the word wall. Students were then required to apply the newly learned words to a problem and complete a Frayer model. The teacher opened her class by having students define three terms. The teacher conducted a mini lesson reviewing the concepts and answered student questions. During the work session portion of the class, the students worked in groups to complete selected problems with the new words. At the closing of class, students completed a double bubble map to demonstrate to the teacher their understanding of the relationships among the concepts.

Participant 2 noted that using context clues to determine the meaning of unknown words "slaughters students every time we test it." She explained that she has students locate words in passages that they do not know and then extract evidence to prove their idea of the definition. In an activity found in Participant 2's lesson plans, students set up a "Literary Word Bank" with five columns. In the first column, students copy the vocabulary term and the sentence where the author uses it in the text. In the next column, the students write a guess at what they think the word means based on its surrounding context. Utilizing print and digital dictionaries, the students copy the precise definition of the word into the third column. Then, the students create a sentence using the word and place that in the fourth column. The students draw a picture in the fifth column that will help them remember the word. According to lesson plans, Participant 2 also reviewed with students the concepts of roots, affixes, prefixes, and suffixes as clues to the meaning of unknown words.

To determine meanings of key terms, Participant 3 stated that she used content specific language in the classroom and required students to use the same language in their responses, both verbal and written, instead of having students memorize definitions. According to lesson plans, the teacher had students cut pictures from magazines that were examples of the vocabulary terms and then explain the meanings of the words to verify that they understood the technical content language.

Participant 4 also expressed an emphasis on teaching content vocabulary as it was her first example of how she incorporated information literacy into the curriculum. Participant 4 stated,

> We've always incorporated vocabulary into our lessons even before they made us put the information literacy standards in the plans. So, all we had to do was go through the plans and where we saw definitions, we plugged in the standard. We didn't make up any new things to do.

One strategy highlighted in the plans required students to complete Frayer vocabulary maps for the new terms. According to lesson plans, Participant 4 used the strategy "ticket out the door" to check for understanding of vocabulary. Students read one of their sentences they created with their vocabulary terms as they exited the class.

Participant 5 stated, "Because most of my students read below their grade level, there were parts of the text I had to read aloud, and of course I have to help them with vocabulary." She stated that she has students create word maps. Using word maps, students associate synonyms and antonyms with the given vocabulary term to ensure the teacher that the students understand the actual meaning of the word. According to

Participant 5's lesson plans, students rotated among four workstations, one of which included completing vocabulary word activities. The vocabulary words were derived from the text students were reading.

Although in the interview Participant 6 did not mention vocabulary instruction as a means of teaching information literacy, this instruction was evident in her lesson plans. The teacher identified content specific vocabulary terms at the beginning of each week's lesson plans. Activities to teach the terms included teacher demonstrations and showcasing artifacts that were examples of the terms. Students also had to apply the words into project assignments. A less formal activity frequently listed on the plans, included the teacher's use of "ticket out the door" whereby students must answer the essential question for the day, which included one or more vocabulary terms introduced that week.

According to lesson plans and interview data, Participant 7 emphasized vocabulary instruction each day through various strategies. She explained that she presented to students content related animations she found on the Internet to provide visual representations of the words. Participant 7 also mentioned giving students a vocabulary term and a piece of chart paper with the letters A to Z on it. Students had to give examples of the vocabulary term that began with the letter A through the letter Z. Students hung their charts on the wall to share with others. Poem, rap, story, and song were all formats students chose from to share their understanding of a given vocabulary term in Participant 7's class.

Participant 8 expressed her confusion about the information literacy standards and how they applied to her subject. This may explain why, during her interview, she did not associate vocabulary instruction with the integration of information literacy. Vocabulary terms were listed at the beginning of each week's lesson plans. Participant 8 required students to determine the meaning of key terms by presenting a model and asking specific questions that would lead to the understanding of the content. The teacher also used demonstrations to present the content vocabulary. Students participated in an activity called "Word Splash" whereby the teacher put the content vocabulary on the board and the students had to identify how the words were connected. Using yet another strategy, the teacher gave groups of three a particular content term with its meaning. The groups then had to draw pictures to illustrate the term. After the students completed the activity, the number ones in the group joined with a number two and a number three. Group members now each had a different term to share with the other members. As teachers relied heavily on using graphic organizers, also referred to as thinking maps by participants, to teach content specific vocabulary, so did they to teach students how to organize text.

Organize text. Georgia common core literacy standards require students to analyze the structure an author uses to organize text. Again, knowledgeable of how to integrate this standard, participants revealed that among the strategies they used, they all required students to create outlines and or thinking maps to support in the understanding of a given topic. Participant 1 stated that she was not clear on the meaning of the term information literacy, which might explain why she did not mention activities she did with

her students to support their understanding of identifying and following steps in a process. Lesson plans revealed Participant 1 introduced students to concepts that required them to conduct a series of steps to solve a problem. The teacher would scaffold the learning for the students by allowing them to work in pairs and eventually independently to apply the steps to a given problem. At the close of class, students created a flow map depicting and organizing the steps in the process. According to lesson plans, it was common practice for the teacher to close the class by having students write the steps to solving problems in a journal.

Participant 2 stated that she required students to outline an argument from a given text. According to her lesson plans, the teacher had students create a reverse outline to delineate the argument, never directly stated by the author, by examining the claims and evidence the author made in the text. Further examples of Participant 2 teaching this standard included students reading a paragraph from a teacher assigned text and marking the topic sentence, key concept, and sentence features. Students then created a flow map to illustrate their analysis of the paragraph structure. The teacher required students to transfer their knowledge of paragraph structure to improve and edit their own writings.

Participant 3 stated that she assisted students in analyzing the structure of chapters within the students' textbooks. She helped them understand the purpose for sections and the use of bold and different font sizes in labeling those sections, pointing out the connections within and among other sections. After analyzing the text structure, students were then required to transfer this knowledge by reading and taking notes in an organized and structured manner instead of listing facts with no connection. Participant 3 stated,

"When their note taking is organized, it makes their thinking more organized." She further stated that students used thinking maps routinely to help with this organization. According to lesson plans, students were required to work in collaborative groups using their textbooks and workbooks and take notes on a specific topic using a tree map. Students also completed circle maps and multi flow maps to organize their notes taken while viewing *PowerPoint* presentations.

Referring back to the information literacy standards, Participant 4 stated," We identify key steps in a text's description of a process." According to lesson plans, students were required to read a text that described the steps in a governmental process. Afterwards, students pulled out key steps from the text and organized them into a flow map demonstrating an understanding of the information literacy standard and the content presented. Participant 4 also stated, "We describe how a text presents information sequentially, comparatively, causally." Students created multi flow maps to describe the causes and effects of the Great Depression based on prior reading and video viewing. Students used this map to create a constructed response written in paragraph form. The teacher also checked students' understanding of an element within a standard by having them read a selected text and create a bubble map to compare and contrast political compromises. Found in Participant 4's lesson plans was a "Who, Where, What" activity whereby students had to extract information from a text to answer questions regarding the sequential events leading to a historical movement.

Participant 5 shared her experiences with the integration of information literacy as an ongoing process including having students complete outlines to organize text for

essays and research papers. The teacher required students to complete outlines before writing their essay rough drafts. The teacher guided students through this process during whole group instruction, had students work in pairs, and required students to complete an outline individually. To demonstrate to students how to organize their research paper, the teacher guided them through this process by creating an outline for them with specific questions within the outline that they were to answer. Students were required to return a final draft of the outline. During the research process, the teacher also required students to use the outline in combination with note cards to organize information found for their projects.

Guiding students through researching a significant person, Participant 6 provided outlines containing key points that students must address in their *PowerPoint* presentations. According to lesson plans and interview data, the teacher helped students organize the researched information by requiring that the presentations be constructed in the order given in the outline. Students completed rough drafts of the presentations and submitted them to the teacher for approval. Once approved, the teacher allowed students to complete the final *PowerPoint* presentation on the computer.

Participant 7 also required students to conduct biographical research and present their findings in essay format. According to lesson plans and interview data, the teacher guided students through the organization of the information required for the essay by providing them with an outline template. Participant 7 required students to research an organization and stated, "I just tell them how I want the essay to be set up. I give them the outline, but they have to fill it in with their information." Students used their

information from their outlines to write a three-paragraph essay that explained the purpose of the organization, described the parts of the organization's symbol, and discussed possible careers related to this organization. She presented a *PowerPoint* to students taking them through a process and then had them use a thinking map to organize the information learned. Students also used bubble maps to compare and contrast past and present production methods.

Guiding students through the steps in a content related process, Participant 8 required students to organize information by creating a foldable using construction paper, scissors, and crayons. According to lesson plans, the teacher provided notes on the content related process the students needed to complete the foldable and showed them a sample. As stated earlier, not clear on how the information literacy standards related to her content area, Participant 8 did not mention this activity in her interview. She might not realize that this activity supports the information literacy standards. Evidence was found in interview and lesson plan data that Participant 8 required students to use graphic organizers such as the bubble map to organize information they found while searching teacher assigned Internet sites for answers to teacher assigned questions. I found that while teachers used graphic organizers to support student learning, scaffolding and guided questions were also strategies teachers used to help students summarize and cite sources.

Summarize and cite sources. According to the information literacy standards for all subject areas, students are required to determine the central ideas of a source, provide a summary, and cite textual evidence to support the analysis of the text. While using

diverse resources, participants used common strategies to teach students how to summarize information including requiring students to create graphic organizers. Participants also commonly required students to cite textual evidence to support answers given in response to teacher assigned questions. Participant 1 stated,

> Students have to break down information in a problem and see what the author is giving you and what is missing. Most of the time there is an unknown and the students have to solve for that unknown. So, in regards to information literacy, they have to end up drawing a conclusion based on the text given.

When explaining how she incorporated information literacy into the curriculum, Participant 2 stated, "Students were reading the chapter. They were pulling the central idea. They were giving me the main ideas that built that central idea. They were giving me and citing the evidence that supported those main ideas." According to lesson plans, the teacher displayed an argumentative passage from a text and guided students through identifying the author's purpose and point of view. The teacher had students cite textual evidence to prove their hypothesis while she charted their answers. She worked through a progression of steps teaching this concept by allowing students to work in pairs to read a passage, annotate for purpose and point of view, and then finally work independently on another reading. Students created a graphic organizer to prove their hypothesis.

According to lesson plans and interview data, Participant 3 required students to summarize content information presented to them in the textbook, *PowerPoint* presentations, and online videos. Participant 3 stated, "I tell them I don't want them sitting there trying to write down everything that is being said." Participant 3 had students

give oral summaries of information learned in the closing portion of her class. There was

no evidence found in the plans or the interview data that Participant 3 required students to

cite sources. This is a direct correlation to her statement in the interview, "The part of

research I see as a challenge is students knowing what is a reliable source versus a

nonreliable source and of course knowing how to cite sources."

Participant 4 stated that students are required to answer teacher assigned questions

using their textbooks, coach books or Internet sites, and cite textual evidence. An

example given by Participant 4 included the students reading a section from the textbook

and an Internet site about technological developments and their effects on society.

Students had to prepare a defense for a debate on whether or not these technological

developments were positive or negative. The teacher required students to cite specific

evidence from the text to support their opinions.

Participant 5 stated that she used magazines, newspapers, novels, and nonfiction

books to teach students how to summarize and cite sources. She stated that students had

to read articles on given topics, summarize the article, and then cite it. She also stated,

"They've had to use multiple sources for research and for writing an essay where they

have to go back and cite their textual evidence." These activities were evidenced through

the lesson plans. Students read a chapter from a novel and a magazine article based on a

common theme. Students then used a graphic organizer to record main ideas and details

drawn from the texts. In another activity, the teacher posed questions to students based on

their reading of a novel. Students cited textual evidence to support their analysis of what

the text said explicitly as well as what they inferred. Students also participated in a

research project whereby they used Internet sources to answer questions about an important historical figure. The teacher also taught students how to prepare a bibliography of the sources they used.

According to interview and lesson plan data, Participant 6 had students research an important person using books pulled by the teacher. The teacher gave the students specific questions to answer and guidelines for using *PowerPoint* that forced them to summarize their information into key points instead of copying and pasting onto the slides. Students created a reference slide and included it in the presentation.

Participant 7 also required students to summarize information. According to lesson plans and interview data, Participant 7 required students to research an inventor and discuss the impact that invention had on society. The teacher required students to summarize their findings into "no more than one page of information." Participant 7 did not require students to cite the source from which they retrieved the information. Participant 7 stated, "I'll let the ELA teachers handle that end."

Participant 8 stated that while getting help from the English language arts teachers, citing textual evidence has been a focus for her and her students. Activities were found in the lesson plans whereby students used teacher assigned Internet sites and the textbook to answer specific teacher driven questions about a topic. Students had to read for information, summarize the information into a short answer and cite textual evidence from which the information was gathered. Students wrote down one question regarding a topic under study, exchanged questions with a partner, and their partner was responsible

for finding the answer using teacher assigned Internet sites and the textbook. Students had to cite the source from which they derived the answer.

According to the findings, teachers' experiences with integrating information literacy included teaching students how to determine the meaning of content specific vocabulary, organize text, summarize a source, and cite textual evidence. Strategies for supporting students with their learning was evident by the teachers' use of graphic organizers, visual representations, guided questions, and scaffolding. Because information literacy includes digital text, strategies for integrating information literacy also included the use of technology.

Research Question 2: What were teachers' experiences with integrating student use of technology into the curriculum?

According to interviews and lesson plan data, teachers' integration of technology included the Internet, videos, *PowerPoint* presentations, Promethean board activities, and academic software.

Internet. Participants 3, 4, 5, 7 and 8 assigned specific content related questions aligned with the standards for students to answer using the Internet. Participants 3 and 8 gave students the specific sites they were to use to find the answers. Participant 3 explained that she has to give students the specific Internet sites they are to use to save time. Participant 3 stated, "It's more important that they learn the content than waste time searching the Internet. So, I just give them the actual site I want them to use." According to lesson plans, Participant 3 had students grouped and rotated them among stations within her room. At one station, students used the textbook to find the answers and at the

next station, they used the Internet and a specifically assigned Internet site. Students wrote their questions and answers on a sheet of paper and submitted it to their teacher.

Participant 8 took students to the computer lab and had them work in pairs to answer content related questions given to them in worksheet format. According to interview data, this teacher gave the students the specific sites they were to use and stressed to students they could not use any other sites to find the answers. According to lesson plans, Participant 8 also used the Internet to differentiate instruction by allowing her advanced students to research answers to content related questions and had the remaining students use trade books instead.

According to interview and lesson plan data, Participant 4 required students to use the Internet to answer questions regarding a historical event. Students were not given specific sites to search, but were allowed to work with a partner with the expectation they would help one another with the research process. Students presented their findings in question answer format. Participant 4 also explained that students frequent an Internet site that is aligned with the textbook and the standards. She stated, "If they get finished with a test early, my fast ones, then I move them to the computer to do their crosswords while everybody else finishes. It's just a review of the chapter."

Participants 5 and 7 brought students to the media center to use the iPads for research assignments. Participants 5 and 7 stated that they first allowed students to explore the Internet on their own, but then provided specific sites if students had difficulty finding the answers to the assigned questions. According to lesson plans, while having students explore survivors of the Holocaust online, Participant 5 gave each

student guided questions to help them focus their research. Participant 5 stated, "I did go through what I wanted ahead of time. I wanted the personal information, how the person ended up getting captured, and what happened to the person while in the prison camp." She stated that she did not give students specific sites to explore, but did "warn them not to use sites that were blogs or sites trying to sell products." Participant 5 devoted five instructional days for students to search and record their answers. Lesson plans indicated that for those students who did not complete their research in the media center, the teacher allowed them to use the desktop computers in her classroom. Students presented their findings in essay format. Participant 5 stated that those students who finished their research on time were allowed to type their papers and those who did not turned in a handwritten copy.

Having no textbooks, Participant 7 relied on the Internet for her students to gather information. According to Participant 7's lesson plans and interview data, she had students research an inventor and his invention. The teacher required students to submit a handwritten one-page paper that included personal information about the inventor and how the invention related to the field they were studying. According to lesson plans, Participant 7 allowed two class periods for students to complete their research. Participant 7 also had students complete shorter research assignments. For example, students used the Internet during one class period to research possible careers that one could obtain from a given particular field of study. The teacher guided the students by giving them possible key term search examples. After searching the Internet, students submitted a handwritten list of careers to the teacher. While teachers gave students

content specific questions to guide their Internet searches, teachers also had students answer guided questions while learning content presented in video format.

Videos. Participants 2, 3, 4, 5, and 8 used videos with students to support instruction. Participant 2 used online videos as an alternative to written text to present an argument. Participant 2 stated, "I had them look at a *YouTube* video and break down the argument. What are the claims? What is the evidence?" Like Participant 2, Participant 3 stated, "I use videos to relieve the monotonous day to day lecture or reading out of the book." According to the lesson plans, Participant 3 had students view an online content related video from Brainpop.com and required them to notate three important facts they learned about the presented information. Participant 4 also used online video clips from *United Streaming* with students to review standards she had taught. Participant 4 mentioned that students generally completed a quiz while watching a film to focus their attention on important points.

According to lesson plans and interview data, Participant 5 used purchased videos to support students' reading and understanding of a class novel. Participant 5 stated,

I do about 30 minutes of the movie, stop, read up to that point. A few days later, we watch another 30 minutes of the movie. We are able to compare what's going on in the movie to what's going on in the book. We …talk about … does that make the story easier to understand, or does it make it more difficult to understand. Does it take away from the story? Does it add to it? They were able to actually see what made the father act the way he did… they couldn't really

understand just by reading it in the book. They could actually see the anger and the hate as opposed to just reading the words.

Participant 8 explained that she integrated online video clips into the curriculum and stated, "*YouTube* is my favorite. They have a lot of great videos, and the kids like those better than me standing up there talking." According to her lesson plans, she projected video clips, pertaining to content related theories, on her Promethean board and required students to answer questions in worksheet format while they watched. After viewing the videos, the teacher placed students in pairs and required them to draw pictures illustrating their chosen theory and present their theory to the class.

According to Participant 1, she has used content related videos from the media center in the past to explain new concepts, show the concepts in real world situations, and differentiate instruction, but has not done so this year. To explain why she had not used them this year, Participant 1 stated, "Out of sight, out of mind." As teachers used videos in combination with guided questions to differentiate instruction, they also used *PowerPoint* presentations to support various learning styles.

PowerPoint. Participants 1, 3, 4, 5, 6, and 8 stated in their interviews that they used *PowerPoint* presentations to support instruction. Participants 3, 4, and 8 used teacher created and online *PowerPoints* to present information to students. Teachers required students to take notes during the presentation. According to lesson plans, Participant 8 allowed her students to get in groups of four to complete an extended activity whereby they used their notes from the *PowerPoint* presentation and their textbooks to complete and then present what they learned to the class.

Participants 1, 5, and 6 required students to create their own *PowerPoint* presentations. According to lesson plans, Participant 1 had her students create a slide presentation whereby they presented the steps in a process with each step represented by a different slide. Participant 1 stated, "Our school is really trying to hone in on differentiated instruction …this is another way to address multiple learning styles." After studying types of poems, Participant 5 had her students create one slide to present their acronym poems to the class. Participant 6 required her students to present their biographical findings using *PowerPoint*. According to plans, Participant 6 guided students through the creation of six slides by providing them with specific requirements for each slide of the presentation. Participant 6 stated that she used the 6x6 model whereby students created each slide with a maximum of six lines of text and six words per line. She also mentioned that she limited students' use of transitions within and between slides and monitored their use of colors and backgrounds. Participant 6 stated, "The smarter kids know how to put in crazy backgrounds and animations and …that can be a distraction when you basically just want the information." Teachers used *PowerPoint* as an initial presentation of facts students must know for testing, yet used Promethean board activities to illustrate concepts and review facts learned.

Promethean board. Participants 3, 4, 5, 7, and 8 used Promethean boards to engage students in the lessons. Participant 3, 7, and 8 stated that they used online animations in conjunction with the Promethean board to demonstrate to students particular content related processes. Students come to the board and manipulate the animations as well. According to Participant 3, "I like using the animations because it

gets students out of their seat, and they pay attention more." Like Participant 3, Participant 4 used interactive maps with her students to get them out of their seats and actively engaged. According to the lesson plans, students labeled and color coded countries, states, and the equator using an online world map and the Promethean board.

Participants 3, 4, and 5 used online games with students such as *Jeopardy* and *Who Wants to Be a Millionaire.* in conjunction with the Promethean board, to provide practice, remediation, and enrichment. Participants 4 and 5 stated that they used the gaming templates to pose questions to their students aligned with the standards as a review for the nine weeks exams. As teachers used the Promethean board as a whole class activity, they used purchased software for more individualized instruction.

Purchased software. According to interview and lesson plan data, Participants 1, 2, 3, and 5 used school purchased software with students for assessments, remediation, and enrichment. Among the online software language arts and math teachers are required to use is *Classworks* and *Renaissance Learning*, also known as *Accelerated Reader* (AR). According to lesson plans, teachers used *Renaissance Learning* to administer diagnostic reading and math assessments three times per year. Students in language arts classes read self-selected books based on their reading ability and then use the software to take quizzes on those books to check for reading comprehension. According to lesson plan data, teachers also administered to students a diagnostic assessment through *Classworks*. Participants stated that while there is no required amount of time students should work on *Classworks*, administrators expect teachers to show evidence that they are using the software with their students to support the standards they are teaching in their classroom.

Teachers noted in their lesson plans that they would be using *Classworks* as a review for the CRCT.

According to interview and lesson plan data, Participants 1 and 3 also used handheld devices called *Study Buddies* with students for remediation and enrichment. These devices come with content cartridges (e.g. math, language arts, science) that contain multiple choice questions based on the common core standards. The teachers chose the standards the students worked on and first had them take a pretest. How well the student did on the pretest determined if he or she completed that lesson or moved ahead to the next standard or element and worked on those lessons. Participant 1 stated that she had required all students to complete the same lesson on the *Study Buddies* to support what she had taught. Because teachers can only check out five *Study Buddies* at a time, Participant 1 added that she had the devices set up in her room as a station. Participant 1 stated, "I know everybody can't do it today, but I give them the week, and it must be done in that week, and I take a grade on it, and they have to show me the grade."

Based on the findings, teachers integrated technology into the curriculum using the Internet, videos, *PowerPoint* presentations, Promethean board activities, and academic software. Teachers integrated technology to differentiate, remediate, and enrich lessons.

Research Question 3: What collaborative services could the SLMS provide to enhance teachers' integration of information literacy skills and student use of technology into the curriculum?

Through the coding of interview and lesson plan data, I obtained a description of teachers' experiences with integrating information literacy and student use of technology into the curriculum and detailed that description in research questions one and two. I extracted the challenges teachers' stated they encountered with the integration to inform research question three. According to the interview data, participants had challenges with integrating technology because of students' lack of research and technology skills compounded with the teachers' perceived inability to access resources.

Research process. When asked about teachers' experiences with incorporating information literacy into the curriculum, participants stated that incorporating student research was a challenge. Participant 2 stated,

They're not doing student directed research because our focus is on CCGPS... We're providing the documents for them to access and then telling them what to do with it. So, are they learning to pull information from something? Sure. Is it what I would like to say that I'm doing with them? No.

Participant 2 acknowledged, "The disadvantage to that is you end up doing one size fits all where this may not be the topic that this kid wants to read. …so they are getting short changed there."

According to participants 3, 4, 6, 7, and 8 students do not know how to perform efficient searches for information, evaluate sources, or cite references. According to Participant 4, she would like to incorporate more research activities into her lessons, but cannot because students do not know how to search the Internet. Participant 4 stated, "They don't know how to search…They want to go to answers.com and have somebody

else do it for them." Participant 7 agreed that students do not want to read to find their answers and stated, "The kids expect that when they type something in the search engine… it's supposed to come right to them." Participant 3 stated, "Students don't know how to research…so we would have to explain that, and it would take too much time." Participant 3 added that she wished she could do research with her students to better prepare them for the challenges of the high school curriculum. Participant 8 agreed with Participant 3 that time was a factor because students struggle with the research process. Participant 8 stated, "I don't know why I would think they would know so much, but they really don't…If you tell them to go to the search bar…they don't know where it is." Participant 2 added that while she knew she should be training students to evaluate sources, it is only one piece of a standard. She explained that there are 20 reading standards she must also teach. Participant 2 continued by saying that implementing all the new common core standards before students take the CRCT in the spring has been a challenge. Participant 2 noted that she will try to integrate this aspect of information literacy next year. When asked if students cited their research findings, Participant 7 stated, "I should be doing it, but I haven't because I tried to teach them myself, but …I'll let the ELA teachers handle that end….It's a little overwhelming." According to the findings, teachers limited their integration of research into the curriculum because of students' lack of knowledge of the research process. Students' lack of technology skills also negatively influenced teachers' integration of technology.

Student technology skills. Participants 1, 2, 5, and 8 stated that students are not technology savvy, which makes it difficult to incorporate student use of technology into

the curriculum. Participant 1 stated that technology infused lessons that should take one

day actually take two or three days because students are unfamiliar with commonly used

software products such as *PowerPoint*. Like Participant 1, Participant 2 and 8 stated that

students are not familiar with *Microsoft* software. Participant 2 added, "We think…all

adolescents these days are technologically savvy. They're not." Participant 2 expressed

that her students do not know how to do basic computer tasks such as saving and

retrieving documents, which influences her to assign a poster or hand written report.

Participant 2 stated, "If I'm already pushed for time, I don't have time to teach you how

to use the technology… I can't teach everything." Participant 2 added, "Students are not

fluent in the technology enough for me to be able to teach the standards using

technology." According to Participant 8, like Participant 2, she is limited on activities she

can integrate into the curriculum that would enhance instruction because of students' lack

of experience with using technology. She stated, "I want them to complete a

PowerPoint… They don't know how to do that. I'm so afraid to try it because I know

that's going to be difficult." Participant 5 stated,

> I have a split group… I've got half who are very computer savvy. They can find
>
> anything. They can even type decently. And then I've got a group I don't believe
>
> they have even touched a computer in their life. Of course, I have the in betweens,
>
> but not a whole lot of those… so, that's a challenge.

While teachers are attempting to integrate technology into the curriculum, they are

negatively influenced to do so because of students' lack of technology skills needed to

complete projects within specific time frames. The overwhelming challenge of working

with students one on one with technology skills they need to complete the project coupled

with monitoring the rest of the class adhering to acceptable use guidelines, also

negatively impacts teachers' decisions to incorporate technology into the curriculum.

Acceptable use of technology. Participants 1, 2, 4, 6, and 8 expressed that

monitoring student use of technology was a challenge. Participant 1 stated that she was

afraid of students breaking equipment that she had checked out from the media center in

her name. She expressed fear of being required to pay for the damages herself because

she knew teachers who had paid for items that had been lost or stolen. Participant 6 also

mentioned that students were known to steal the mice because they did not have one at

home. Participant 1 added, "You're worried about that, so that is just one thing you're

thinking of as a teacher. Most folks think that if they dropped it or something happens to

it,…you are not managing your students." Participants 1 and 8 also mentioned that they

were not comfortable allowing their students to use the iPads in their classrooms for fear

that they may slide off the desks and break. Participant 1 stated,

> If I go check out five iPads, then I'm worried that…one of them is going to get
>
> broken…*Study Buddies* have fallen in my room. Graphing calculators have fallen.
>
> So, what makes me think an iPad won't fall? Graphing calculators cost $100. I
>
> can afford that…iPads cost six or seven hundred dollars. I can't afford that.

Participant 8 added that she would allow students to use the iPads in the media center so

that the SLMS could help monitor. She stated, "I think as long as they are taught how to

use them they will be okay with them."

Participant 2 stated she would like to integrate technology more frequently into her lessons, but monitoring was a challenge. She stated, "There is a management component to it. I don't trust them to do the right thing. They're middle schoolers." Participant 2 gave the example that while students should have been typing their papers, she "caught them looking at pictures of fat children on the Internet and laughing," but noted that it was typical middle school behavior. Participant 4 stated,

> I'm just a little afraid to put them on [the computers] on their own for research projects. You know when I'm with them doing things, there's the website, do it. They don't have to research anything. They have to be monitored. I'll blink and they'll have a picture up on their computer of a rapper. I would be comfortable with using technology if it was a perfect world.

Likewise Participant 8 stated, "Because they are middle school students, they are very sneaky and if you don't give them specifically where you want them to go, they will magically make a mistake and end up on another site." Participant 6 stated that monitoring was a challenge as students will also sneak their ear buds into class and attempt to listen to music while they should be completing their assignments. Participant 8 added that monitoring was a challenge because there are so many students and just one of her. Teachers revealed that integrating technology is made easier if they can access a computer lab, but stated this access is limited and dictates if they integrate certain activities or not.

Access to resources. Participants 1, 2, 5, 6, and 8 cited access to computer labs as a challenge when attempting to integrate student use of technology into the curriculum.

Participant 1 commented that while she has five desktop computers and five laptops, she would rather use the computer lab to save time. Participant 2 agreed and added that since students are not digital natives, it would be ideal to be in a lab setting using the Promethean board and have students follow instructions step by step for saving or retrieving documents. According to Participant 1, working in the classroom and rotating students to computers would take one to two days for students to complete a *PowerPoint* presentation, whereas, working in a lab would only take one day. She revealed that if she cannot get into a lab, she will omit the project from her lesson plans.

Participant 1 stated, "We only have three labs at the school, and we have two classes that are numeracy classes …they utilize the labs quite often so you have to work your lesson around their schedules to get in the labs." Participant 5 stated, "We have three computer labs and …they'll be certain times of the year we are all fighting for the labs. So, to get the labs for multiple days is hard to do." Participant 5 noted, "We had one computer lab completely down. So, sometimes there's that issue of the labs not working." Participant 6 reiterated, "Those computers … in sixth grade lab work half the time and then we are having to fight over two labs when numeracy has got to be in a lab two days a week." Participant 6 concluded, "I do too much with technology to be fighting over a lab." While teachers prefer using the computer lab for students to research and create presentations, they admitted they needed more training on integrating the Promethean board to enhance instruction, which would not require the use of a lab.

Teacher technology training. Participants 1, 2, 5, 7, and 8 stated they would like to receive training on how to better integrate the Promethean board into their lessons.

Participant 1 stated, "I'm comfortable with the Promethean board, but I know I'm not utilizing it to its full capacity." She continued to explain that while she is now using an overhead projector to demonstrate how to use graphs, she is reminded that she has observed teachers using graphs generated by the Promethean board. She stated, "Students could be graphing. They could be moving this and moving that. A Promethean board can do that. I'm not doing that." Participant 1 clarified that at the beginning of the school year, she had data projector problems and could not use the Promethean. Because the technology in her room was unreliable for several weeks, she got out of the habit of using the equipment. Aware of the capabilities of the Promethean board, she stated, "I'm still utilizing it like a white board, not for what it could provide me like using the flip charts and saving them… I'm still doing pencil and paper." Participant 1 concluded that she needed more training on how to incorporate the Promethean board into her lessons.

Participant 5 stated, "I use the Promethean board quite a bit. I'm still not as familiar with it as I would like to be." Like Participant 1, Participant 5 also used the Promethean board as a white board for such activities as presenting online video clips or watching a movie. Both of these activities only require the use of the data projector, yet Participant 5 included them in her list of activities that her students complete via the Promethean board. Acknowledging that she needed more training using the Promethean board, Participant 5 stated, "I still don't know how it's supposed to be used with the flip charts… I never used one before I came here. What little bit I do know I taught myself." Like Participant 5, Participant 2 stated that she was teaching herself how to use the Promethean board but would like to know how to do more with it.

While Participant 7 has used the Promethean board to present animations, she stated that she needed training on how to use the Promethean board more effectively with her students. Participant 7 explained that she received training on the Smart board at college and has not received any training on the Promethean board. Participant 7 stated, "There's a slight difference and that kind of throws me off." Participant 8 also used the Promethean board to show animations of content related processes and students did come to the board and manipulate the images. Participant 8 stated, "I really don't feel like I know enough about Promethean. I know enough to get by…but I know there is so much more probably that you could do with the Promethean board that I just don't know about." Teachers did not mention the SLMS as one who could provide this Promethean training, which might reflect that they are not aware of the role of the SLMS as an information and technology specialist.

Role of school library media specialist. To expect teachers to collaborate with the SLMS with integrating information literacy and student use of technology into the curriculum, the SLMS must inform teachers of this role. When asked what services teachers were aware that the SLMS provided to support instruction and student achievement, participants were limited in their knowledge of the role of the SLMS as an instructional partner. Participants were most familiar with the SLMS locating and purchasing resources for teacher use such as books and videos. Participant 2 was familiar with the SLMS locating anchor texts for purchase to support the common core standards. Participant 5 noted that the SLMS let teachers know when new items were in the media center. Participant 1 stated, "I know that if there are any books out there that my students

want, the librarian will pretty much get it for them." Participants 6 and 7 added that the SLMS also makes technology equipment available to them such as iPads, computers, and scanners. Participants 2, 3, 4, 5, and 8 mentioned the role of the SLMS as teaching isolated research skills and lessons. Participant 4 stated, "Maybe you could help the kids with the research…I don't know if that's something you would do or could do." Participant 7 noted, "I guess since me being a newcomer I'm one of those teachers that hasn't tapped into [the services]…I'm not aware. I'll be honest."

Summary of Findings

The data collected and analyzed addressed all three of the study's research questions. The focus of the study shifts now to the project as an outcome.

Teachers' experiences with integrating information literacy into the curriculum included emphasizing content vocabulary, organizing text, summarizing a source, and citing textual evidence to support an analysis. Of all the information literacy skills, teachers focused on content specific vocabulary instruction the most. Teachers, adept at integrating content vocabulary, applied strategies into instruction. Strategies included using word walls, thinking maps, context clues, word banks, affixes, content specific language in the classroom, visual representations, Ticket Out the Door, synonyms, antonyms, demonstrations, and models.

Teachers also placed emphasis on using thinking maps and outlines to teach students how to organize text and support their understanding of a topic. Teachers focused on using maps to depict and organize steps in a process, analyze paragraph structure, organize notes, identify key steps in a text's description of a process, describe

causes and effects, and compare and contrast. Teachers used outlines with students to organize text for essays and presentations. Teachers guided students with the completion of the outlines by giving them specific questions to answer at each level of the outline.

Summarizing and citing textual evidence to support analysis of text was also emphasized by teachers. Teachers used novels, magazines, textbooks, and Internet sites with students requiring them to identify main ideas, prepare a defense, create presentations and cite evidence to support their ideas. The use of graphic organizers was a popular strategy among participants to support students in summarizing diverse resources. Participants also commonly required students to cite textual evidence to support answers given to teacher assigned questions. Teachers did not always require students to create bibliographies of these citations.

Teachers' experiences with integrating student use of technology into the curriculum included the Internet, videos, *PowerPoint* presentations, Promethean board activities, and academic software. Most often students used teacher assigned Internet sites to answer content related questions assigned by the teacher. Students presented their information in short question answer format. Two teachers required students to complete more lengthy research assignments whereby students were guided with questions to answer, but were allowed to explore Internet sites on their own. Students presented these findings in essay format. Teachers also used videos to introduce and review content information. In some classes, students are required to take notes to ensure they are watching the video. In other classes, teachers used videos as an alternative to written text and required students to analyze the content. Half of the teachers used *PowerPoint*

presentations they or someone else created to present content and required students to take notes. The other half of teachers allowed students to create *PowerPoint* presentations to present the information. Teachers in science and social studies classes engaged students in the use of the Promethean board by having them manipulate animations and maps. Teachers in other subject areas used the board as a white board to display information. English language arts, math, and science teachers used academic software, aligned with the common core standards, with students to prepare and practice for the CRCT. English language arts classes also used *Renaissance Learning* to monitor students' independent reading progress.

Collaborative services the SLMS could provide to enhance teachers' integration of information literacy skills and student use of technology were gleaned from challenges teachers experienced. Teachers often opted out of integrating information literacy skills and student use of technology into the curriculum due to challenges they were experiencing. Teachers were hesitant to incorporate research into lessons because students do not know how to search the Internet for information, evaluate sites, and cite sources. According to teachers, students also lack basic technology skills needed to publish documents and create electronic presentations. Because students come with varying experiences with these skills, they require one-on-one instruction from the teacher. This necessity to instruct students on an individual basis makes it difficult for teachers to monitor other students who engage in off task behaviors. Teachers believed because students lack basic research and technology skills there was not enough time to incorporate those activities and adhere to required pacing guides. Teachers may believe

they are solely responsible for teaching these skills and may not be aware of the school library media specialist's role as an instructional partner in reducing or eliminating these challenges.

Teachers expressed frustration with the availability of computer labs for students to complete research and technology infused activities. Although teachers have computers in their classrooms, they prefer having all students on a computer at the same time. Because teachers who taught remediation courses had priority when using the labs, content teachers found it difficult to plan lessons around their schedules. If teachers could not get into the labs, they would replace the technology infused lesson with an activity that did not require technology. Teachers may not be aware that the SLMS could provide resources in the media center to accommodate their needs and offer all students simultaneous access to computers.

Acknowledging their need for technology training, all participants expressed a desire to learn how to integrate the use of the Promethean board into their lessons. Again, not aware of the SLMS's role, teachers may not know that the SLMS could implement this professional learning.

The Project as an Outcome

According to the findings from the study, while teachers were attempting to integrate information literacy and student use of technology into the curriculum, they were encountering challenges that hinder this integration. Because students are not technology literate and do not know how to conduct research efficiently, teachers avoided or limited the integration of technology and research driven assignments. Believing they

are the sole providers of instruction, teachers reported that they could not adequately monitor students while they were using technology. Teachers' fear of students breaking equipment or viewing inappropriate web sites negatively influenced their integration of technology and research, as teachers believed that these incidents would be a reflection upon them as being weak classroom managers. Teachers believed that they do not have time to teach students technology and information literacy skills and keep up with required pacing guides. With the implementation of the Common Core standards and emphasis on College and Career Readiness, all teachers are required to integrate technology and research into the curriculum and cannot choose the information literacy standards they want to teach and omit the ones they do not.

According to the data, teachers were not aware of the SLMS's role as an instructor partner, which may explain why she was not included in teaching information literacy skills. Further, teachers may not realize the impact collaboration between themselves and the SLMS could have on overcoming the challenges encountered with the integration of technology and information literacy skills and student achievement. Therefore, the project is the facilitation of a series of professional development sessions with the teachers at GCMS. The focus of the professional development includes collaboration between the SLMS and teachers to help teachers overcome challenges they experience with the integration of information literacy skills and student use of technology into the curriculum. This project is a logical outcome of the findings as teachers do not know the role of the SLMS and limit the integration of research and

technology into the curriculum, which is the central issue to the problem that teachers are not utilizing the library media program to promote information literacy.

Teachers have participated in workshops by outside providers regarding the integration of technology into the curriculum, but these workshops offer no support to teachers once they enter their classroom. These workshops also do not address the role of the SLMS as an instructional partner who can help with the integration. Having the SLMS provide a series of professional development sessions would provide the opportunity for teachers to meet in smaller groups and examine how collaboration with the SLMS can help them overcome challenges with integrating technology and information literacy potentially leading to increased student achievement in their specific content area. An in house provider will allow the opportunity for modeling of the strategies in the classroom versus in a controlled environment. According to Moreillon and Ballard (2012), professional development should be job embedded, coteaching with actual students, curriculum, and available resources. By improving teacher practices with integrating information literacy and student use of technology, we can "move students, as well, as faculty, into truly becoming lifelong learners" (Gamble, 2008, p. 17).

Conclusion

The methodology section for this project included a description of the data collection process, which included semistructured interviews and documents. Data were analyzed for themes based on teachers' experiences with integrating information literacy skills and student use of technology into the curriculum as stated by the participants. Reliability and validity were assessed via member checking and peer debriefing. The

findings from the study were used to facilitate a series of professional development sessions to increase awareness among teachers of the SLMS's role as a teaching partner who can promote information literacy among students.

Section 3 includes a description and goals of the project, implications, rationale for choosing the project, review of literature that supports the project, implementation plan, project evaluation plan, and implications for social change.

Section 3: The Project

Introduction

To inform this project study, I used data gathered from teacher interviews and lesson plans regarding their experiences with integrating information literacy and technology into the curriculum. In the data gathered from lesson plans and interviews, I confirmed that while teachers were trying to integrate information literacy and technology into the curriculum, they often opted out of integrating student research activities and student use of technology because of challenges they encountered. I also found that teachers are unaware of the role of the SLMS as an instructional partner who can help alleviate those challenges. Based on teachers' challenges with integrating information literacy and technology into the curriculum, I presented professional development activities designed to increase teachers' collaboration with the SLMS in promoting information literacy.

In this section, I include a review of literature on professional development led by the SLMS. Following the literature review is the implementation plan, which includes a description of potential resources, barriers, and my responsibilities, as well as those of teachers and administrators, involved with the professional development. The section concludes with an evaluation plan and implications for social change.

Description and Goals

The project for this study is the facilitation of a series of professional development activities to promote information literacy through collaboration between teachers and the SLMS to support student achievement. The local problem that I

identified in Section 1 was that teachers were not using the library media program. In

Research Question 1, I explored teachers' experiences with incorporating information

literacy skills into the curriculum. Teachers were hesitant to incorporate research into

lessons because of students' inability to efficiently search the Internet, evaluate sites, and

cite sources. In Research Question 2, I explored teachers' experiences with integrating

student use of technology into the curriculum. Teachers often opt out of integrating

technology into the curriculum because of fear, time constraints, and students' lack of

basic technology skills. In Research Question 3, I identified collaborative services the

SLMS could provide to enhance teachers' integration of information literacy and student

use of technology into the curriculum. The SLMS could offer collaborative teaching of

the information literacy standards targeting challenges teachers identified. Much of the

local problem stemmed from teachers' limited knowledge concerning the role of the

SLMS as an instructional partner. If training existed on how teachers and the SLMS can

collaborate on challenges encountered with the integration of information literacy and

student use of technology, it is likely that the local problem would be resolved.

I based the project on three goals:

1. Increase teachers' understanding of the role of the SLMS as an

    instructional partner who can help with information literacy and

    technology integration.

2. Increase collaboration between teachers and SLMS to promote

    information literacy.

3.   Meet the information literacy and technology training needs of teachers

through professional development.

Rationale

As found in my literature review in Section 1 and the data, factors contributing to

the underuse of the library media program included a lack of knowledge of the role of the

SLMS as an instructional partner, time constraints, and teachers' fear of integrating

information literacy and technology into the curriculum (Donham, 2008; Frazier, 2010).

The genre of professional development activities led by the SLMS is a logical solution to

the problem. One of the SLMS's roles is to provide professional development to meet the

school's learning needs (AASL, 2009b). Because teachers find integrating information

literacy and technology a challenge, it is important for the SLMS to offer professional

development to help teachers overcome these challenges.

The professional development activities that I proposed are a solution to the

problem because they are not "one shot" workshops led by an outside provider without

any follow up (Knight, 2007). As suggested by Casey (2011), the workshops led by the

SLMS allow for the modeling of new strategies inside the teachers' classroom as opposed

to a controlled environment. Because the SLMS will be leading the professional

development, he or she will also be able to provide feedback to teachers on the strategies

that they implement unlike traditional workshops provided by an outside consultant

(Jones & Vreeman, 2008). This holds positive implications for not only teachers and

students, but for the SLMS as well, as it allows him or her to build relationships with

colleagues, advocate for the media program, and get feedback on how to improve the

program (Grogean & Shillingstad, 2012; Karabush & Pleviak, 2011). Providing

professional development will also elevate the SLMS's role as an instructional partner

who can contribute to student achievement (Dupree, 2012; Harvey II, 2010).

Review of the Literature

In conducting the review of literature, I used Walden's Library Portal to search

the Ebsco and Academic Premier Search databases. The parameters of the search

included articles from within the last 5 years of the time of the research I included the

search terms *librarian* in combination with *leader, technology, information literacy,*

professional development, co-teaching and *evaluation.* I also included data from print

journals and books. The literature review includes an examination of the SLMS as a

leader of information and technology, professional development design, support, and

advocacy.

School Library Media Specialist as Leader

Leadership is the most important role of the SLMS. According to AASL (2009b),

the SLMS assumes a leadership role through the design and delivery of professional

development to identify and meet the school community's learning needs. SLMS

recognize that ongoing inquiry and learning with their colleagues is critical in developing

quality learning experiences for students (Hughes-Hassell, Brasfield, & Dupree, 2012).

Activities that instructional coaches perform, such as encouraging, implementing,

supporting, collaborating, modeling, observing, and providing feedback, fit closely with

the standards by which media specialists operate (AASL, 2009b; Knight, 2007). The

SLMS leads by fostering collaboration, building teams, encouraging opinions of teachers

to inform the media program, and providing opportunities for professional development by which he or she models and promotes lifelong learning (AASL & AECT, 1998; AASL, 2009a).

Constructivism supports the SLMS as a mentor facilitating professional development learning through activities that build upon the learner's previous experiences with incorporating information literacy (Keengwe & Onchwari, 2009). The process of coaching, modeling, and providing a conducive environment for collaborative learning is supported by Bruner's social constructivist learning theory (Keengwe & Onchwari, 2009).

School library media specialist as information leader. The SLMS is an information leader in the school. The SLMS leads in ensuring that students are information literate – able to access, evaluate, and use information (Church, 2011). Brindley (2009) added that with declining information literacy skills, students "view rather than read and do not possess the critical and analytical skills to assess the information that they find on the Web" (p. 9).

According to the data from the interviews, teachers did not know the meaning of information literacy or how the required information literacy standards related to their specific subject area. Luckman (2009) and Brindley (2009) encouraged SLMS and teachers to collaborate to meet students' information processing needs by providing research instruction at all grade levels that will better equip students for a digital future. Pierce (2009) added that the SLMS must first define information literacy for teachers and demonstrate how to integrate information literacy elements into the content areas.

Hughes-Hassell et al. (2012) found one high school concerned about their students' lack

of information literacy skills. As the information leader of the school, the SLMS went

beyond compiling a list of resources and instead facilitated professional development that

offered specific strategies to address this challenge. According to Hughes-Hassell et al.,

this professional development helps to strengthen the connection between the school

library program and student learning. According to Karabush and Pleviak (2011), SLMS

are responsible for providing professional development for teachers and guiding them in

effective and more rigorous integration of research, information literacy, and technology,

into the curriculum.

School library media specialist as technology leader. The SLMS is a

technology leader in the school. It is important for the SLMS to acquire resources, but it

is more important to provide professional development to help teachers become effective

users of the resources and for the SLMS to model effective teaching using these resources

(Perez, 2010). Professional development is a constant need among teachers at all skill

levels to stay abreast of the rapidly changing technologies (Anderson et al., 2008; The

Mind of a Researcher: Keith Curry Lance, 2010). Perez (2013) added that the SLMS

should offer professional development on how to integrate technology successfully into

the curriculum as teachers find it difficult to keep up with technology trends and changes.

This echoes data from interviews, which revealed that teachers desired training on how to

integrate their Promethean boards effectively into the curriculum.

Lamb (2011) noted that SLMS are "in a unique position to help classroom

teachers differentiate instruction" (p. 33). Through professional development, the SLMS

is afforded opportunities to introduce technology resources to teachers that can be integrated into instruction and used by students (Buddy, 2009; Harvey II, 2010). Norton (2013) added that professional development should emphasize not only new resources but also target "more effective uses of current technology to facilitate learning for students" (p. 67). Perez (2013) also warned, the SLMS should offer professional development on a few tools at a time so as not to overwhelm teachers.

The SLMS serving as models and working in collaboration with teachers can alleviate teachers' fear of integrating technology into the curriculum as the SLMS will be present to share knowledge in helping manage students and technology should problems arise (Keengwe & Onchwari, 2009; Perez, 2013). Perez (2013) found that teachers working with the SLMS on integrating technology into the curriculum, relieved stress so they could focus on the content. This support might serve as motivation for the teacher to progress (Perez, 2013). To ensure teachers are aware that support is available, the SLMS must do so through the design of professional development.

Professional Development Design

When designing professional development, the SLMS should establish priority topics that "have the greatest impact on student learning or help teachers meet administrative goals quickly" (Perez, 2013, p. 4). Harvey II (2010) added that the SLMS must connect professional development to curriculum and standards to enrich students' learning. The SLMS also looks at data to identify areas of weakness and offers instruction or resources targeting those areas to improve teaching and student learning (Church, 2011; Dees, Mayer, Morin, & Willis, 2010; Wejrowski & McRae, 2013).

Teachers need ongoing professional development geared toward each teacher's individual needs and opportunities to improve his or her teaching strategies (Smith et al., 2008; Wallace & Husid, 2012;). Schools cannot simply offer "one-shot" professional development opportunities that fail to address concerns and offer no follow up (Binkley & Strahan, 2011; Knight, 2007). Traditional training, which includes poorly designed workshops conducted by an outside provider, might cause teachers to be hesitant to implement new strategies (Abilock et al., 2013; Knight, 2007). Teachers need to see strategies modeled in their classrooms with their students, not in a controlled environment free from the interruptions a teacher encounters while trying to teach (Casey, 2011). Leaders of the school must provide sustained and intensive professional development if change is to occur (American Association of School Librarians & Association for Educational Communications and Technology, 1998; Moreillon & Ballard, 2012).

According to Starkey (2012), the design of professional development is becoming more relevant, more reflective, and more social allowing for the collective intelligence of a united group. Dees et al. (2010) added that for professional development to be successful there must be effective communication, clear set of goals, and sharing of expertise. Wejrowski and McRrae (2013) agreed that stakeholder input is important and the SLMS should capitalize on assets such as staff to help with training. Grojean and Shillingstad (2012) found that meeting with a small group situated at a round table with comfortable chairs lessens intimidation and facilitates this reciprocal learning. According to Karabush and Pleviak (2011), providing professional development to individual

departments is a quick and easy way to advance the media program and provide targeted development. Meeting on common planning time is also beneficial instead of meeting at the end of the day when everyone is tired (Dupree, 2012).

The SLMS supports student achievement by coteaching alongside the content teacher to promote information literacy. According to Pierce (2009), time and emphasis must be spent during professional development on the process of collaboration between the SLMS and teachers detailing how to better use the SLMS's expertise to ensure the lesson's success. Coteaching models include one teaching/one supporting, parallel teaching, and team teaching (Conklin, 2012). The one teaching/one supporting technique requires one teacher to teach the lesson, while the other teacher assists students within the classroom. Parallel teaching is beneficial to classrooms with a larger number of students because the content teacher can teach half the class, while the SLMS teaches the other half at the same time either in the classroom or in the library. This allows the teacher more one-on-one time increasing students' opportunities to engage in the lesson (Conklin, 2012; Kloo & Zigmond, 2008). Using the team teaching technique, both the content teacher and the SLMS are responsible for teaching specific portions of a lesson to make the lesson complete (Conklin, 2012). Church (2011) added that despite the coteaching model used, the SLMS coplans, coteaches, and coevaluates the process and the product (Church, 2011).

Teachers benefit from coteaching relationships as they reflect on a lesson's strengths and weaknesses and refine the lesson (Chanmugam & Gerlach, 2013). Through coteaching, teachers have someone to consult while designing lessons and provide

feedback on those lessons that work well and those that do not (Chanmugam & Gerlach, 2013). Gustafson (2013) agreed and added that teachers should begin conversations with what is going well with the lessons and not linger on the negatives; instead, move quickly to problem solving together. Teachers are benefited with this safe environment to experiment with new teaching methods (Chanmugam & Gerlac, 2013).

Dupree (2012) found that during successful professional development sessions, participants talked about actual practice and how to incorporate new ideas. Professional development meetings had agendas, facilitators from the group, and minutes were posted in a shared folder so everyone could see. In the meetings, participants introduced new ideas for teaching, discussed the curriculum and standards, planned outcomes, and compared formative and summative assessment data. Having a clerical assistant allowed the SLMS release time from the media center to attend the meetings (Dupree, 2012). Bilyeu (2009) noted that teachers should provide observable data to identify exactly what teaching strategies are effective in the lessons. Bilyeu further added that when observing student process and product, teachers should evaluate whether the students grasped the standard, if they were engaged, if subgroups such as English language learners (ELL) met their goals, and how the lesson could be improved to ensure student success. As the teacher and SLMS critique what works and what does not work within the lesson, the collaborative culture of the school is strengthened and student learning is improved (Hughes-Hassell et al., 2012).

Support

As an instructional leader, the SLMS must offer continued support to teachers. Instructional leaders must support teachers by providing them with feedback on the strategies they implement (Jones & Vreeman, 2008; Theard-Griggs & Lilly, 2014). Successful professional development relies on effective communication between both parties, where the instructional leader also listens and demonstrates empathy to the challenges teachers face when implementing new initiatives (Knight, 2007; Theard-Griggs & Lilly, 2014). Grogjean and Shillingstad (2012) suggested that the SLMS has an open door policy by which the professional development does not end after the training. Instead, the participants may call on the SLMS at any time for support or additional training to integrate the new strategy, or the SLMS may model the strategy in the teacher's classroom. Dupree (2012) added that face-to-face meetings start the initial conversations but are continued through e-mails and lunch meetings.

The SLMS can offer support to participants by using the gradual release model of coaching, similar to the model used when teaching students. Often staff members resist new teaching strategies due to the absence of the instructional leader working alongside the teachers (Jones & Vreeman, 2008; Theard-Griggs & Lilly, 2014). The gradual release model entails modeling the strategy, working together on the strategy, and finally allowing the learner to work independently (Harvey II, 2013; Knight 2007). Often with teachers, leaders proceed immediately from modeling to expecting the teacher to implement the strategy independently (Knight, 2007; Theard-Griggs & Lilly, 2014). Instructional leaders should provide repeated modeling of the new strategy and allow teachers time to discuss and ask questions about the process (Hall & Simeral, 2008;

Theard-Griggs & Lilly, 2014). Supporting teachers in integrating information literacy and technology into the curriculum affords the SLMS the opportunity to advocate for the media program as an integral part of instruction.

Professional Development to Advocate

When SLMS become leaders of professional development, it elevates their role as important members of the learning community (Harvey II, 2010). Staff development led by the SLMS affords teachers the opportunity to see the SLMS as an instructional partner and information specialist who can improve instructional practice and influence student achievement. Harvey II (2013) and Buddy (2009) agreed that by providing professional development, SLMS and the media program become more visible to staff and administrators. According to Dupree (2012), having relationships in place between the SLMS and teachers makes it easier to collaborate and to be viewed as a valuable instructional partner who can contribute to student achievement. Leading professional development affords the SLMS the opportunity to build these relationships with staff and influence change (Hughes-Hassell et al., 2012). Grojean and Shillingstad (2012) agreed and added that leading professional development sessions is a first step in building relationships with colleagues. Once trust is established, resistance to integrating new strategies into the curriculum will subside.

Because administrators are not aware of the role of the SLMS, providing professional development allows the SLMS to show them rather than tell them (Levitov, 2010). Karabush and Pleviak (2011) added that leadership in professional development strengthens credibility with administrators solidifying the SLMS's role as an instructional

partner who is indispensable. By SLMS embedding themselves in professional development they will no longer need to advocate for the media program because their colleagues will experience the impact of the program on student achievement (Karabush & Pleviak, 2011).

Implementation

The project for this study is a series of professional development activities based on challenges teachers encounter when integrating information literacy and technology into the curriculum. The focus of the professional development activities is to demonstrate to teachers how collaboration with the SLMS can lighten those challenges. The project in total is in Appendix A. Implementation of the project would first begin with a meeting with the principal. The meeting would include discussing the data results of this study, discussing the role of the SLMS as a leader of professional development, and linking the purpose of the professional development to school improvement goals, which includes increasing differentiation, student use of technology, and the percentage of students who exceed state standards. We would then discuss the possibility of offering the professional development during teachers' common planning time. We would also discuss the need for my modeling in teachers' classrooms, labs, and the media center, to support those who incorporate the strategies learned from the professional development.

Potential Resources and Existing Supports

There are resources and supports that must be in place for this project to be implemented. Administration must be an advocate for the library media program and support the role of the SLMS as a teacher leader in integrating information literacy and

technology into the curriculum, value collaboration, and encourage teachers to plan

together. Administration shows their advocacy for the media program by including the

SLMS on the leadership team where he or she is encouraged to offer input regarding

school improvement goals and initiatives. Administration also shows their advocacy by

supporting the media center operating on flexible scheduling, which allows the SLMS

release time to conduct professional development outside the media center. This

scheduling coupled with the assistance of a paraprofessional allows the SLMS the

opportunity to visit classrooms to model and support teachers with their integration of

information literacy and technology into the curriculum.

Potential resources that will aid in the implementation of this project include

supporting personnel and the school improvement plan. The SLMS might call upon

supporting personnel such as teaching staff and other SLMS, who are experts with

integrating technology into the curriculum, to share their experiences and expertise with

other staff members. The SLMS might also call upon the school technology technician

should problems arise with technology working properly. School improvement plans that

support the need for an increased integration of student use of technology, or increased

student test scores, validate the need for this professional development.

Potential Barriers

Potential barriers to successful implementation include nonactive participants.

Teachers who offer little to no input when collaborating will prove detrimental to the

professional development plan. This may also negatively affect the chances that they will

follow through with the implementation of the lesson or collaborate with the SLMS in the

future on other activities. Technology failing during the lesson may also negatively

influence teachers and cause them to become frustrated and abandon future use of

technology. Activities or events that interrupt instructional time may also negatively

affect teachers following through with implementing the collaborative lesson as they may

have to modify their lessons to make up for lost time because of pressure to adhere to

pacing guides. With the support of administration and the technician, these barriers

should be less of a threat but are still possible.

Proposal for Implementation and Timetable

After approval from the administration for the professional development, the SLMS

will meet with the faculty during the regularly scheduled faculty meeting to share data

results from this study and explain the project implementation timeline. Prior to

beginning the professional development activities, the SLMS will complete the Georgia

Library Media Association (GLMA) exemplary library media program self-assessment

rubric to evaluate the current condition of collaboration between teachers and the SLMS

(Georgia Library Media Association & Georgia Library Association, 2014). Each

category within the rubric corresponds to law, policy, and standards from the Georgia

legislature, the Georgia Department of Education, and the American Association of

School Librarians. The SLMS will rate the library media program as basic, proficient, or

exemplary in the categories pertaining to information literacy and technology integration,

collaboration, and staff development. To ensure reliability, the SLMS will provide

supporting documentation of each criterion to verify each rating. Using the rubric will

provide a baseline rating when evaluating the professional development at the end of the

year. Professional development activities will begin weekly during the first 60 minutes of each grade level's 90-minute common planning time. These meetings should be held in a room that facilitates a nonintimidating reciprocal learning environment. Equipment should include a round table, comfortable chairs, Promethean board, data projector, Internet access and hand held clickers. Teachers should bring their laptops and an electronic copy of their nine weeks unit plans. The SLMS should bring copies of the information literacy standards for each grade, sticky note pads, pens, pencils, highlighters, and copies of the collaborative lesson plan template. Light refreshments might also be served to welcome teachers. Although collaboration between teachers and the SLMS is required during the professional development sessions, it is the responsibility of the SLMS to ensure all action steps are implemented. Figure 1 is an implementation timeline for the professional development sessions.
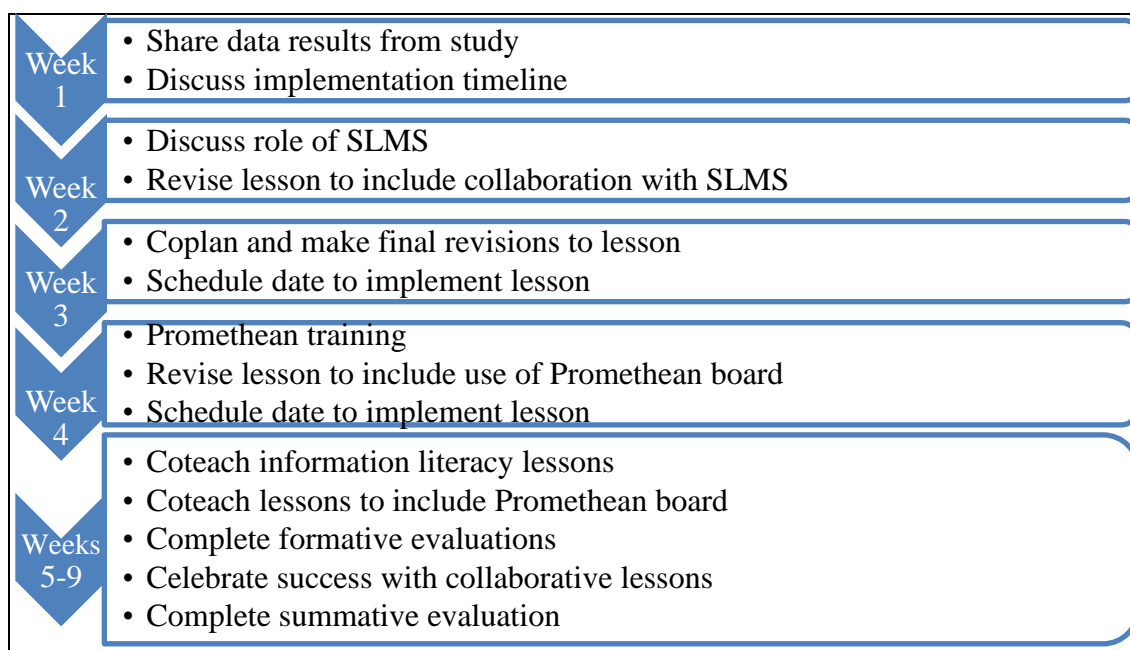
Week 1	• Share data results from study • Discuss implementation timeline
Week 2	• Discuss role of SLMS • Revise lesson to include collaboration with SLMS
Week 3	• Coplan and make final revisions to lesson • Schedule date to implement lesson
Week 4	• Promethean training • Revise lesson to include use of Promethean board • Schedule date to implement lesson
Weeks 5-9	• Coteach information literacy lessons • Coteach lessons to include Promethean board • Complete formative evaluations • Celebrate success with collaborative lessons • Complete summative evaluation

Figure 1. Professional Development Implementation Timeline.

During the second week, the SLMS will share a *PowerPoint* presentation included as a part of the project found in Appendix A. The SLMS will discuss the impact of media programs on student achievement noting areas of weaknesses as scored by students on the CRCT. According to Wejrowski and McRae (2013), professional development is based on teacher needs and student growth. The SLMS will then discuss his or her role as an instructional partner and how he or she can help with challenges teachers expressed they were experiencing with integrating information literacy and technology into the curriculum. The SLMS will incorporate hand held clickers for teachers to respond to questions. This integration is designed to spark teacher interest in using the clickers with their students. During the presentation, the SLMS will also give an overview of coteaching models that will make the integration of information literacy manageable. The professional development session will take place during the teachers' first 60 minutes of their common planning time.

Based on what they have learned from the presentation (Appendix A), teachers will engage in a hands on activity where they will revise one of their unit plans which integrated information literacy. If the teachers do not have such an activity in their plans, they will construct one. Teachers will group themselves by grade level and content to revise the lesson to include a coteaching model with the SLMS. With the guidance of the SLMS, teachers will access the collaborative lesson plan template (Appendix A) through the share drive, revise the lesson, and save the revisions in a folder on the same share drive. The lesson should be no more than 45 minutes so that all cotaught lessons will be

implemented by the end of the nine weeks grading period. Teachers will then display the revised lesson, via the Promethean board, for the group to discuss and make suggestions to refine the plans.

During week three and common planning time, teachers and the SLMS will meet by department to coplan and discuss further possible activities and resources they can incorporate into the lessons to integrate the information literacy standards that teachers identified. The SLMS will meet with each department for 30 minutes on two separate days. Math, science, and exploratory teachers will meet with the SLMS first during their common planning time. English language arts and social studies teachers will meet with the SLMS the second day during their common planning time. This meeting may take place in the media center or the teacher's classroom, whichever the teachers prefer. Teachers will schedule with the SLMS a tentative date that they would like to implement the lesson in their classroom providing further opportunity to put their newly learned skills into practice (Blanchett, Powis, & Webb, 2012). The lessons must be implemented no later than week nine.

During week four, teachers and the SLMS will meet by grade once again during the first 60 minutes of their common planning time. This professional development session will be devoted to training teachers how to integrate their Promethean boards into the curriculum. Teachers will bring with them their current nine weeks unit plans and their laptops with Promethean software loaded. Teachers will share examples of how they integrate the Promethean board noting strategies that work well. The SLMS will demonstrate how to integrate the annotate over desktop tool. The SLMS will demonstrate

how to use the tool with images, novels, and articles from magazines, newspapers, and the Internet. Other tools that will be used in conjunction with the annotate over desktop include the spray bottle, pen, highlighter, and reset page. Teachers will create a username and password to create an account with Promethean Planet. Exploring PrometheanPlanet.com, teachers will familiarize themselves with flipcharts, lesson plans, and resource packs that are available to them and support the standards. Upon finding a flipchart that is aligned with instruction, they will open and save it on their computer. Teachers will revise their lesson plans to include a Promethean activity either using the annotate over desktop tool or a flip chart. Revisions will be saved on the teacher's computer and the share file.

The teachers will schedule a date for the implementation of the Promethean activity to include modeling and support by the SLMS if needed. To maximize time spent with teachers on block schedules, lessons will be scheduled so that the SLMS will be in one teacher's classroom the first 45 minutes of the lesson and the second teacher's classroom the second 45 minutes of the block. The SLMS will model with the teacher's first block students. The SLMS and the teacher will instruct the second. By the third block, the teacher should begin to feel comfortable and lead the lesson with the SLMS serving as support if needed.

During weeks five through nine, the SLMS will coteach with teachers to implement the information literacy and technology lessons. After the implementation of each lesson, teachers and the SLMS will meet during their planning time to discuss the effectiveness of the lesson and make adjustments accordingly. The teachers and SLMS will complete

the formative feedback collaboration form, found in Appendix A as part of the project, identifying strengths and weaknesses of the lesson and include proposed changes. The SLMS will save the formative feedback collaboration form with the lesson plan to inform and improve future implementation of the collaborative lesson. The SLMS will also apply knowledge gained from the collaborative lesson to other similar activities or lessons where applicable. After each collaborative lesson, teachers will also complete the professional development formative evaluation form, found in Appendix A, evaluating the professional development experience. The SLMS will use this feedback to improve upon delivery of remaining and future professional development sessions. During week 10, teachers will complete the Technology Needs Survey (Appendix A) to guide the SLMS in creating future professional development sessions. The SLMS will administer the surveys during each grade level's common planning time. The SLMS will also maintain an electronic portfolio. This portfolio will contain professional development agendas, teacher lesson plans, collaboration forms, student work samples, and survey results.

Celebrations of success should occur concurrently with the training and implementation. For example, as teachers begin to implement their collaborative information literacy lessons, the SLMS might report successes at school faculty meetings. The SLMS could also write articles for the system newsletter or web page, spotlighting teachers and their integration of the library media program.

Roles and Responsibilities of Student and Others

SLMS must be a part of professional development not only as attendees, but leaders as well (Harvey II, 2010; Karabush & Pleviak, 2011).When SLMS lead professional development, "they are able to engage in collaborative planning and teaching, promote inquiry, participate in reflective practice, and become effective change agents – all roles encouraged by the AASL national guidelines" (Hughes-Hassell et al., 2012, p.7). My responsibilities will include scheduling the professional development sessions to occur during teachers' common planning times based on approval and initial meeting with principal. The SLMS's responsibilities also include conducting the professional development activities based on findings from this study, allowing time for teachers to ask questions, collaborating individually with teachers on integrating information literacy and technology into the curriculum, modeling new strategies, and ultimately providing feedback on those strategies. The SLMS should strive to help teachers become independent users of technology who eventually mentor their colleagues in their department or grade (Perez, 2013).

The role of the teachers includes being an active participant in the professional development. This is accomplished by asking and answering questions, submitting requested lesson plans, providing input when developing the collaborative lessons, and following through with the implementation. Teachers will reflect on the collaborative experiences and make adjustments that will improve upon the lesson. Being literate with the use of technology is part of a teacher's job description; therefore, teachers will complete a technology needs survey, found in Appendix A as a part of the project, to

determine the topics for the next professional development sessions that are most needed for them to integrate information literacy into the curriculum.

The role of administrators will be that of support. Administration must be an advocate for the library media program, encourage, and expect all teachers to collaborate (Harvey II, 2009). Administrators should visit classrooms where the collaborative lessons are taking place to raise their awareness of how the library media program supports information literacy, the school improvement plan, and student achievement (Levitov, 2010). To assist administration in meeting this objective, the SLMS will e-mail the principals and assistant principals a copy of the professional development calendar. This calendar will contain the dates, times, and locations of the collaborative sessions. A reminder e-mail will be sent 24 hours in advance of each session. A printed copy of the calendar will be placed in administration's mailbox and posted in the teacher planning room and media center.

Project Evaluation

According to Boehle (2013), weighing SLMS reflection, student performance and evidence of change over time, can provide a valid program evaluation. As a formative assessment, the SLMS will reflect on the current condition of the library media program regarding collaboration by completing the Georgia Library Media Association (GLMA) rubric prior to implementation and complete the rubric again at the end of the school year in order to improve future collaboration and classroom practices and set goals (Donaghue & Dolci, 2013).

Participants will complete the formative feedback collaboration form, found in

Appendix A, after each collaborative lesson to discuss effectiveness of the lesson and

make adjustments accordingly. Teachers will complete the professional development

formative feedback form (Appendix A) to aid the SLMS in improving the

implementation of the professional development collaborative sessions. Teachers will

also complete the professional development summative feedback form, found in

Appendix A, regarding the total professional development experience to determine if

enough training for implementation occurred. Dumas and Jenkins (2013) recommended

that feedback about the professional learning be collected over a period of time and not

immediately after the training. As suggested by Dumas and Jenkins (2013), at the end of

the school year teachers will complete the professional development summative

evaluation survey (Appendix A) identifying changes they made, if any, to their classroom

instruction regarding the integration of information literacy and technology into the

curriculum. The SLMS will also explore library media usage to determine if there was an

increase in the use of the library media program after the implementation of the project as

compared to the previous year's statistics. The SLMS will create an electronic portfolio

to reflect on the professional development sessions and the collaboration process

(Donaghue & Dolci, 2013). This portfolio will contain the professional development

plans, teacher lesson plans, completed formative collaboration forms, summative

evaluations, student work samples, library media usage statistics, and CRCT scores.

According to Dumas and Jenkins (2013), "The ultimate outcome of professional

learning is improved student outcomes" (p. 37). Brown, Dotson, and Yontz (2011) added

that the effectiveness of professional development could be evaluated through scores from standardized tests. The SLMS should look at student CRCT scores in the content areas. While exploring student CRCT reading scores, special attention should be paid to information literacy, media literacy, research, and writing domains. The SLMS will also look at scores for those students who take the Eighth Grade Technology Literacy Test. Using the previous years' scores for both assessments will serve as a baseline for measuring growth.

<div align="center">**Implications Including Social Change**</div>

Teachers participating in the professional development activities will become aware of the role of the SLMS and how he or she can help with challenges faced with the integration of information literacy and technology into the curriculum. The hands on experience of cowriting and coteaching a lesson should lessen anxiety felt by teachers with integrating information literacy and technology. The coteaching experiences should also create a sense of confidence and build relationships between the SLMS and the teachers as instructional partners, which is a first step in building library media programs. Seeing teachers and the SLMS collaborate, administrators will become aware of the role the media program can play in school improvement goals and initiatives.

It is my hope that teachers will have a positive collaborative experience and will include the SLMS in future extensive collaborative lessons and projects. This use of the library media program has the potential to develop students who are critical thinkers, skillful researchers, ethical users of information and are prepared for learning throughout their lifetime (AASL, 2009b). As students increase their information literacy skills, there

is also the potential that GCMS will begin to move students from not meeting or minimally meeting standards on the CRCT, state writing tests, and technology literacy tests, to exceeding standards and consequently impact school improvement goals. This implication is important to students as they acquire these skills to help them learn on their own, both academically and personally, in an information rich environment not just now but also in the future. Prospective employers are also impacted by students who graduate being able to think critically and use information appropriately as more jobs require these information skills versus jobs in the past that centered on manufacturing (AASL, 2009b).

As the culture of the school changes to one where the library media program is the hub of learning, it is likely teachers and administrators will share this phenomenon with their peers outside the school. Those teachers and administrators might in turn seek out their media specialists for collaboration to integrate information literacy and technology into the curriculum. As a mentor to other teachers outside my school system interning to become SLMS, I plan to share this project with them so that they might begin their first year in their library with a plan for making teachers and administrators aware of the role of the SLMS. I also plan to present this project at the Council of Media Organizations (COMO) state conference. This presentation will help new and veteran SLMS who are having difficulty getting teachers to collaborate with them. After the conference, SLMS will be able to return to their schools with this professional development project in hand that they can implement immediately. The professional development activities will take SLMS through the process of how to advocate their role to administration and teachers. I will also present this project at the regional

administrators' training to inform them of the role of SLMS and how they, collaborating

with teachers, can impact student achievement.

Conclusion

Professional development sessions are a logical solution to the local problem of

teachers not using the library media program to its potential. Teachers do not know the

role of the SLMS and encounter challenges when integrating information literacy and

technology into the curriculum. The project implementation derived from information

gathered in the professional literature. While the project spans over a few months,

collaboration with the SLMS should be ongoing. The project contributes to social change

for teachers, students, administrators, and SLMS not just in the local community but

outside as well. In section 4, I reflect on the development of this project and provide an

analysis of myself in the process.

Section 4: Reflections and Conclusions

Introduction

In this section, I detail the project's strengths and weaknesses in addition to offering suggestions for addressing its limitations. Next, I discuss what I learned about project development and leadership and offer an analysis of myself as a scholar, practitioner, and project developer. Finally, the project's potential for social change is explored followed by suggestions for future research.

Project Strengths

This project debunks teachers' and administrators' common perceptions of the SLMS's most important role as being program administrator. This misperception of the role of the SLMS and underuse of the media program is a result of SLMS not adequately promoting their role as instructional partners who can impact student learning (Church, 2011; Kaplan, 2010). One of the project's strengths is that it supports a collaborative culture between teachers and the SLMS to promote information literacy and increase academic achievement among students.

Through the project's professional development sessions, teachers are educated on the role of the SLMS as an instructional partner who can help with challenges they are encountering with integrating technology and information literacy into the curriculum. Teachers generally think of instructional partners as the regular education teacher and the special education teacher coteaching together (Kaaland & Nickerson, 2010). Through this project, teachers are taken through the coteaching process with the SLMS including planning the lesson, teaching the lesson, analyzing the lesson's effectiveness on all

learners, and evaluating the collaborative process. Through the development of the

professional learning sessions, special attention is given not to overwhelm teachers.

Because teachers cannot add anything else to their already packed lesson plans and must

adhere to pacing guides, teachers are asked to use their current lessons and include the

SLMS as a coteacher. As teachers become more comfortable with the collaborative

process, the SLMS and teachers can then explore replacing lesson activities with those

that are more rigorous in information literacy and technology instruction as suggested by

Frazier (2010).

The project is also strengthened by the fact that the professional development

sessions are provided by the SLMS within the school and not an outside provider.

Because the SLMS is in house, the professional development sessions afford the SLMS

the ongoing opportunity to coteach lessons with actual students and receive feedback on

the collaborative process (Casey, 2011). Teachers are also afforded the ability to visit or

e-mail the SLMS throughout the year should they have questions about information

literacy or technology integration.

Recommendations for Remediation of Limitations

One limitation of the project would be the implementation timeline. Schools with

more teachers than the school under study might find the implementation timeline

unrealistic. To remedy this situation, the SLMS could adjust the timeline so that the

professional development is implemented over the course of a semester or the school year

instead of 10 weeks. Additional professional development days could also be added each

week to reduce the size of the group and allow the SLMS to better facilitate questions.

Extending the timeline would allow the SLMS to implement the cotaught lessons with all teachers.

A second limitation of the project includes the inability to conduct the professional development or coteaching sessions when the media center paraprofessional is unavailable. To remedy this limitation, a second paraprofessional, substitute teacher, or a parent volunteer could be trained to perform basic tasks in the media center such as checking in and out books so that the SLMS could visit the classrooms. The SLMS could also ask the teacher to bring the class to the media center to complete the lesson and a student volunteer could check in and out books while the SLMS conducts the lesson.

Recommendations for Alternative Approaches

If a school cannot overcome the limitations associated with this project, an alternative approach to promoting information literacy through collaboration between teachers and the SLMS would be to create a professional learning community (PLC). With the formation of a PLC, the SLMS would only work with those teachers who volunteer rather than the entire school as suggested in this professional development project. According to Linder, Post, and Calabrese (2012), PLC are voluntary and made up of those who come together with shared visions and beliefs. This smaller number of teachers participating would help the SLMS overcome the challenge of the implementation timeline and lessen the time he or she is out of the media center.

The roles of the SLMS in the development of professional development are similar to those roles of the SLMS in a PLC. According to Hughes-Hassell et al. (2012), the SLMS plays roles – information specialist, staff developer, teacher and collaborator,

researcher, learner, and student advocate - in the implementation of a PLC. As with the

professional development project, the SLMS would identify a gap in learning and begin

the PLC meeting with an analysis of current research on the topic (Hughes-Hassell et al.,

2012). For this project, the learning need identified could be how to best integrate

information literacy or technology into the curriculum. Within the PLC, teachers share

ideas in their area of expertise and focus the collaborative meetings on improving student

learning and teacher practice (Leclerc, Moreau, Dumouchel, & Sallafranque-St-Louis,

2012). The SLMS, in collaboration with the teachers, would then implement a staff

development plan based on members' specific needs and help to design appropriate

instructional experiences (Hughes-Hassell et al., 2012). As with the professional

development project, for the PLC to be successful, teachers must be open to constructive

criticism, be supported by administration, and be encouraged by peers when

implementing the strategies (Leclerc et al., 2012).

Scholarship

Through the development of this project, I learned that scholarship first required

me to identify a problem in my setting about which I was passionate and narrow that

problem so that it could be researched. Next, as a researcher, I had to read about the

identified problem until I had saturated the literature making certain that I did not stray

from my topic. Upon processing and writing the literature reviews, special attention had

to be paid not to give a summary of journal articles, but instead to merge ideas of various

authors together. After reading extensively about the role of the SLMS and collaboration,

I had come to understand why my teachers might not be using the library media program

to its potential. However, I had to remind myself, I could not solve the problem before I had completely collected and analyzed the data.

Upon collecting data during interviews, I learned the value of probing questions. I learned the importance of asking a participant to explain their answers instead of inferring what they meant. For example, several teachers identified time as a challenge to integrating information literacy into the curriculum and the literature supported this data. However, when I asked teachers to explain what they meant by time, they would then begin to describe students who did not know how to perform efficient searches or manipulate software, which helped me get to the root of the problem of time. I cannot put more time in the day, but by collaborating teachers and the SLMS can produce students who are more technological savvy thus saving valuable time.

Scholarship also requires analyzing data. I learned that when analyzing data I had to read the interview transcripts several times looking for themes to emerge. Color coding common elements in the transcripts helped with identifying themes. Themes were broad at first, but after reading the transcripts for the second or third time, I was able to collapse and combine common themes.

Finally, I learned that scholarship requires putting into practice what I learned from reading the professional literature, collecting data, and analyzing data. Through this study, I developed a project that is based on the professional literature and data that were collected and analyzed. I also developed an evaluation plan for the project according to suggestions in the professional literature.

Project Development and Evaluation

In developing the professional development sessions, I learned that I must constantly reflect on the professional literature for project design and evaluation. Because I wanted to improve the use of the library media program to support student achievement, I did not want to create a project that would overwhelm teachers and ultimately negatively influence them from collaborating with me in the future. I had to develop a project that demonstrated to teachers that I am an instructional partner, not someone who had found something else for them to do.

I also learned that I had to reflect constantly on the data collected and analyzed when developing the project. If SLMS expect teachers to integrate the newly learned strategies, the professional development must be geared toward teacher needs (Loertscher & Diggs, 2009). While I would have liked to conduct professional development sessions on how to integrate iPads or eBooks into instruction, I realized I must save those sessions for when teachers are ready. Instead, needs expressed by teachers were at the forefront of project development.

To evaluate the professional development sessions, I learned that there must be evidence of change (Boehle, 2013). Teachers will show evidence of change by seeking to collaborate with the SLMS after the implementation of the professional development sessions. Through the completion of the needs assessment survey, I will be able to continue offering professional development sessions to enhance teachers' integration of information literacy and technology. After the initial implementation of the project, it is

my hope that teachers will welcome and expect professional development sessions from me that will help them integrate information literacy and technology into the curriculum.

Leadership and Change

Upon entering the school library media field, I did not focus on my role as a teacher leader. Instead, I focused on my role as program administrator because it was not as foreign to me. After several years of witnessing students struggle with information literacy, I wanted teachers to call on me as an instructional partner, but I did not know how to change their perceptions of my role. Immersing myself in the literature pertaining to leadership and library media taught me how to start the change I wanted to see in our library media program. The professional literature validated my experience that asking teachers to collaborate with me was not an effective strategy to promote information literacy. I learned through the literature that providing professional development sessions was a venue for me to advocate and demonstrate to teachers and administrators my role as a teacher leader and how the media program supports student achievement (Cooper & Bray, 2011).

To continue leading teachers in collaboration to promote information literacy, advocacy will be at the forefront of media program development. I am powerless to change the culture of my school alone and need to advocate the library media program to administration, staff, and the community (Varlejs, Stec, & Kwon, 2014). I am aware that after the implementation of this project, not all teachers will continue to collaborate with me. However, I will begin to collect data with those that do. This data regarding collaboration, aligned to school improvement goals, and student achievement will be

shared monthly with administration in a private meeting, with staff in faculty meetings, and with the community through postings in the system newsletter and on the school web page.

Advocacy with staff will be promoted by continuing professional development sessions that help teachers integrate information literacy and technology into instruction. I will take the lead with offering professional development regarding integrating information literacy and technology into the curriculum emphasizing collaboration. According to Ms. Smith (2015), principal at GCMS, to receive exemplary on the Teacher Keys Evaluation, administration is looking for teachers to lead in professional development without administration having to prompt them. Currently, administration develops professional learning opportunities for teachers that are conducted at the school. I am ready to take this lead. To advocate for the media program, I must get out of the media center and take my services to the teachers if I want the collaborative culture to change.

Analysis of Self as Scholar

After completing my masters in Instructional Technology, I mistakenly thought of myself as a scholar because I had the advanced degree. Through working on this project and reading the professional literature, I was humbled by what I did not know about school library media and leadership. To learn more about my role and how to become an effective SLMS, I subscribed to magazines in library media and educational leadership. It was while attending a workshop with other SLMS that I knew reading the professional

literature was to my benefit as I had previously read the research and studies of which the presenter spoke rather than just hearing them for the first time.

Reading the literature helped build my background knowledge of the issues faced by teachers attempting to integrate information literacy and technology into the curriculum. This background knowledge helped me understand the data I collected from my participants and aided in the data analysis process. After reading literature pertaining to collaboration and promoting information literacy, I applied the research findings to the development of the project aimed at solving my local problem. Through reading the literature, I also developed an evaluation plan to determine if the project was effective. It was through reading the professional literature and applying it to my project and evaluation plans that I began to grow as a scholar.

While conducting professional development is crucial in growing as a scholar, I must also continue to participate in professional development for optimal personal growth (Varlejs et al., 2014). I must seek out professional development pertaining to collaboration, technology in education, and advocacy. In order to keep teachers abreast of technologies, I must be up to date and a practitioner myself (Baumbach, 2009; Herring, 2011). According to Brown, Dotson, and Yontz (2011), the SLMS should model life-long learning.

Analysis of Self as Practitioner

As I developed this project, I constantly thought of how I would put the professional development sessions into practice. First, I thought about the school's unique planning schedule. My school has every Tuesday's planning time allotted for

professional learning. I knew this scheduling would help me integrate the learning sessions with reduced resistance, as teachers are accustomed to participating in professional development on a weekly basis. Second, I made certain that I included in the sessions not only an oral rendition of my role as an instructional partner, but also hands-on opportunities for teachers and myself to see that role play out in actual practice. Finally, because I want to see change toward collaborative practice at my school, I designed a needs assessment survey as a springboard for future professional development sessions that I am confident will be implemented.

To foster the change I wish to see in the library media program, I will demonstrate my leadership ability by integrating evidence-based practices with my professional experience to identify learning needs of teachers and students to inform the library media program. After identifying the learning needs of my patrons, I will then implement researched-based strategies that target those needs. I will link the school library media program to the common core state standards and student achievement. According to Todd (2015), library media specialists should engage in evidence-based practices to demonstrate the impact of school libraries on student achievement.

In the future, I will not rely solely on state reports to prove that library media programs affect student achievement; I will begin collecting that data at the local level. After learning needs or gaps in instruction have been identified and the evidence-based practices to target those needs have been implemented, I will measure the outcomes of the practice to determine what has changed for the learners. According to Todd (2015),

SLMS must link local evidence of practice to formal research when advocating for the media program as an integral component to student achievement.

Analysis of Self as Project Developer

To develop the project, I had to reflect on the literature, the data collected, and the participants. First, I had to read the literature available concerning my problem. While reading the literature, I became overwhelmed with the amount of information available and had to remind myself to focus on topics that contributed specifically to solving the problem. I also became intrigued with what I was reading and found myself knowingly wandering off topic. I began to bookmark articles for future reading to maximize my time.

From the onset of this study, I was in constant thought of what my project would be. I found myself trying to decide on the type of project I would develop before I had analyzed the data. At the beginning of the research process, I contemplated developing a desktop manual for teachers to follow as a guide to collaboration with the SLMS. I thought about forming a professional learning community, as they were the trend. This constant thinking of how to solve my problem before I collected the data overwhelmed me and stalled my progress. I learned I had to stop thinking about the final project and allow myself to focus on collecting and analyzing the data first. Once the data were analyzed, it was obvious that the most logical solution to the problem of underuse of the library media program was none of those preconceived notions, but instead was to develop a plan for professional development.

When developing the project, I constantly thought of my participants. I have empathy for teachers as I have also taught in the regular classroom. I understand their time is valuable. I have felt the frustration of attending a workshop and leaving with nothing I can implement in my classroom. I have also left workshops feeling inadequate as a teacher because the presenter added something to my busy schedule that I had no idea how I could implement. The frustrations I have experienced helped drive the project to be one such that teachers will leave the sessions having added nothing new to their plates and knowing that they will have someone to work alongside them in its implementation.

The Project's Potential Impact on Social Change

The project's data revealed that teachers were not aware of the SLMS's role as an instructional partner and limited the integration of information literacy and technology because of challenges they encountered. Student test scores reflected this limitation of integration with weaknesses appearing in the areas of information literacy, research, and writing. Targeting these issues, I developed a professional development plan that would demonstrate to teachers, rather than telling them, how my role as an instructional partner could help reduce their fears and challenges of integrating information literacy and technology into the curriculum.

The project's potential for social change at the local level includes promoting a collaborative culture whereby teachers and the SLMS work together to promote information literacy among students. This exposure to information literacy and technology will potentially create students who are skillful researchers and critical

thinkers better prepared for learning both academically and personally throughout their lifetime. As administration sees the collaborative culture change between teachers and the SLMS, they will become aware of the role the library media program plays in increasing student achievement.

Implications, Applications, and Directions for Future Research

The results of this study have the potential to impact positive social change among SLMS, teachers, and administration within and beyond the local level. SLMS who are not collaborating with their teachers can use this project as an example of how to engage their teachers in the collaborative process. Teachers who may be unsure how to integrate information literacy and technology into the curriculum, while at the same time manage other elements of the classroom, will also find the project beneficial when approaching their SLMS for help. Finally, as administration at the site of this study is aware of the role of the SLMS and sees the impact collaboration between teachers and the SLMS has on school improvement goals, it is likely they will share their experiences with administrators within their district and across their region.

According to the socioconstructivist theory of learning, learners are more engaged in activities that have personal meaning to them (Grassian & Kaplowitz, 2009). This theory of learning has implications for administrators as those who are focused on achieving higher test scores would encourage the collaborative effort between teachers and the SLMS knowing that schools with strong media programs outperform those without. This theory also has implications for teachers as they will be more apt to collaborate with the SLMS when they see the SLMS connecting the integration of

information literacy and technology to the standards and demonstrating how the strategies can be directly applied to the classroom (Franklin & Stephens, 2009).

As the existing problems found within the data collection and analysis are solved, new problems regarding collaboration will emerge. As technology evolves, so also will the learning needs of teachers and students. With this professional development plan in place, we will continually be able to address future needs through formative feedback of the collaborative lessons and technology needs surveys. According to Wallace and Husid (2012), as teachers and students build upon their experiences, their needs and expectations from the SLMS will change.

Directions for future research would be beneficial to assess the impact of collaboration between the SLMS and teachers on student achievement at the local level. A quantitative study could yield data that illustrate whether student achievement increased or decreased on the CRCT in the areas of information literacy, research, and writing among teachers who collaborated with the SLMS on the integration of information literacy into the curriculum.

Conclusion

I developed this professional development project to address the underuse of the library media program. The social change impact of this study includes creating a collaborative culture in this school whereby teachers and the SLMS work together to increase students' information literacy and technology skills. Challenges hinder teachers from integrating information literacy and technology into the curriculum. The social impact of this project has the potential to create a school culture where teachers call upon

the SLMS to keep them abreast of evidence-based practices relevant to the integration of

information literacy and technology to support the standards that can be directly applied

to the classroom. Through the implementation of a library media program fostered by

collaboration, we have the potential to see a social change whereby students will begin to

excel in information literacy and technology both academically and personally as the

common core standards push teachers to create activities that foster critical thinking. The

use of a library media program is the vehicle for such activities. This social change has

the potential to extend beyond the walls of the school as administration and teachers

share their collaborative successes in meeting school improvement goals with other

administrators and teachers across districts. As administration and teachers see the local

evidence-based data of the impact of the library media program on student achievement,

they will better understand the role of the SLMS as an instructional partner rather than

the keeper of the books.

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Appendix A: The Project

Scope and Sequence of Professional Development Sessions

Date	Activity	Responsibility	Description
Immediately following publication of study	Meet with administration	SLMS	Share with administration the data results of this study, role of the SLMS as leader of professional development, link to school improvement goals, scheduling of sessions during common planning time, and the need for SLMS to model strategies. Complete the GLMA Self-Assessment Rubric
Week 1 August Faculty Meeting (After School)	Meet with faculty	SLMS	Briefly, share data results of this study and project implementation timeline. Announce scheduled meeting with SLMS will be the first 60 minutes of each grade level's common planning time. Ask teachers to bring with them to the next session an electronic copy of their current nine weeks unit plans, content standards, and laptop. SLMS to bring copies of information literacy standards per grade, sticky notes, pens, pencils, highlighters, and post electronic copy of the collaborative lesson plan template (Appendix A) on the share drive.
Week 2 Tuesday Grade Level Planning	Introduction to role of SLMS as instructional partner	SLMS Teachers	Day 1 Discuss impact of media programs on student achievement, share CRCT scores and weaknesses, define information literacy, discuss role of SLMS as instructional partner who can help with identified challenges via *PowerPoint* presentation (Appendix A). Integrate use of clickers in presentation to spark teacher interest in integrating this technology into future lessons. Duration of presentation 60 minutes

			per grade level.
			Day 2 Teachers examine unit plans by department, looking for lessons they have integrated technology or information literacy standards. They will revise that activity to include collaboration with the SLMS. SLMS to circulate and help with revisions. Activity is not to exceed 45 minutes. Revisions are to be typed on electronic collaborative lesson plan template and saved in the share file. Share via Promethean board. Peers offer suggestions to refine the lesson plan. Duration of presentation 60 minutes per grade level.
Week 3 (Math, Science, & Exploratory) (ELA & Social Studies) Grade Level Planning	Collaborate by department	SLMS Teachers	Departments meet on 2 separate days. Discuss teachers' proposed revisions, share suggestions, revise and develop rubrics if needed. Schedule date to implement lesson. Duration of meeting 30 minutes per department.
Week 4 Tuesday Grade Level Planning	Promethean Training	SLMS Teachers	Day 1 Teachers share effective strategies of Promethean integration. Explore Promethean tool annotate over desktop. Create username and password for Promethean Planet account. Explore prometheanplanet.com for flipcharts, lesson plans, and resource packs. Open and save a flip chart. Presentation duration 60 minutes per grade level. Day 2

			Teachers examine unit plans to integrate or revise Promethean activity. Save revisions to the share file. Share proposed revisions via Promethean board. Schedule date for implementation of Promethean activity with modeling and support if needed. Presentation duration 60 minutes per grade level.
Weeks 5-9	Implement lessons

Formative Assessments | SLMS Teachers | Coteach lessons. Lesson duration no more than 45 minutes. Follow up during planning time to discuss effectiveness and make adjustments. Complete formative feedback collaboration form. Complete professional development formative evaluation form. |
Weeks 5-9	Celebrate success	SLMS Teachers	Report successes at faculty meetings. SLMS to write success articles in the monthly system newsletter. Post pictures of collaborative lessons on web page.
Week 10	Needs Assessment Survey	SLMS Teachers	Teachers complete the Technology Needs Assessment Survey (Appendix A) to inform future professional learning sessions.
Ongoing	Maintain Portfolio	SLMS	Create an electronic portfolio to reflect on the collaboration process. Portfolio will contain professional development agendas, teacher lesson plans, collaboration forms, evaluations, student work samples with rubrics, library media usage statistics, and pre and post CRCT scores.
May	Summative Assessment	SLMS	Compare CRCT scores in the domains of information and media literacy and research and writing at current year's end to previous year's scores. Compare Eighth Grade Technology Literacy scores of current year to previous year's scores.
May	Summative	SLMS	Compare library media usage for

	Assessment		collaborative lessons after the implementation of the professional development to previous year's usage statistics.
May Faculty Meeting	Summative Assessment	SLMS Teachers	Survey teachers to determine if they made changes to classroom instruction as a result of the professional development or if they need additional training to integrate the media program into instruction.

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Week 1

Resources Needed: Data projector, laptop, implementation timeline (Figure 1)

Duration: 15 minutes

- ➢ Share data results of this study.

- ➢ Share implementation timeline for professional development

- ➢ Items to bring to next meeting: electronic or print copy of current nine weeks unit

  plans and content standards, laptop

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Week 2

Resources Needed: *PowerPoint* presentation (Appendix A), data projector, Promethean board, teacher laptops, teachers' current nine weeks lesson plans (print or electronic copy), folder on share drive, electronic copy of collaborative lesson plan template on share drive, print copies of content and information literacy standards

Day 1

Learning Outcomes: Participants will

- Understand the impact of media programs on student achievement
- Understand the role of the SLMS as an instructional partner

Duration: 60 minutes per grade

➢ Share *PowerPoint* presentation (Appendix A)

➢ Discuss the impact of library media programs on student achievement.

➢ Define information literacy

➢ Discuss role of SLMS as an instructional partner

➢ Discuss types of coteaching models

➢ Questions and comments

Day 2

Learning Outcomes: Participants will be able to create a collaborative lesson to include

the SLMS

Duration: 60 minutes per grade

- ➢ Revise a current lesson plan to include information literacy standards and co-

  teaching with the SLMS using collaborative lesson plan template (electronic

  copy)

- ➢ Save revised lesson plans on the share drive

- ➢ Share revised lesson via Promethean board

- ➢ Peers offer suggestions to improve lesson

- ➢ Items to bring to next meeting: laptop

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Week 3

Resources Needed: laptop, Internet connection, access to share file

Learning Outcomes: Participants will be able to create a collaborative lesson to include

the SLMS

Duration: 30 minutes per grade department (e.g. 6th grade math, 7th grade ELA)

- ➢ Discuss teachers' proposed revisions to lesson, revise again if needed

- ➢ Develop rubrics if needed

- ➢ Save all revisions to share file

- ➢ Schedule date to implement lesson

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Week 4

Resources Needed: teacher laptops with Promethean software loaded, data projector,

Promethean board, Internet connection, access to share file, content and information

literacy standards

Learning Outcomes: Participants will be able to

- Use the annotate over desktop tool

- Explore Promethean Planet

- Open and save a flip chart

Day 1

Duration: 60 minutes per grade

➢ Teachers share their current integration of the Promethean board

➢ Explore Promethean tool (annotate over desktop)

➢ Create username and password for Promethean Planet

➢ Explore Prometheanplanet.com for flipcharts, lesson plans, and resources packs

➢ Open and save a Flipchart

Day 2

Learning Outcomes: The participants will be able to integrate a promethean activity into a current lesson plan.

Duration: 60 minutes per grade

- ➢ Examine unit plans to integrate or revise a Promethean activity

- ➢ Save revisions to share file

- ➢ Share proposed revisions via Promethean board

- ➢ Schedule date for implementation of Promethean activity

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Weeks 5-9

Resources Needed: Calendar of scheduled collaborative activities, completed

collaborative lesson plan templates

Learning Outcomes: The participants will be able to

- Coteach a lesson with the SLMS integrating information literacy into instruction

- Integrate the Promethean board into instruction

Duration: 45 minutes per lesson

➢ Coteach lessons

➢ Complete formative feedback collaboration form

➢ Complete professional development formative evaluation form

➢ Report successes during faculty meetings

➢ Write success articles in system newsletter

➢ Post pictures of collaborative lesson on school web page.

Promoting Information Literacy through Teacher-SLMS Collaboration

Professional Development

Agenda

Date: May

Resources Needed: Summative evaluation forms, CRCT score comparison chart,

computer, data projector

Duration: 30 minutes

➢ Faculty complete summative evaluations

➢ Share comparison of last year's CRCT scores to current year's scores
(information and media literacy, research and writing)

➢ Share comparison of last year's Eighth Grade Technology Literacy scores to last
year's scores

Promoting Information Literacy through Teacher-SLMS Collaboration

Facilitator Notes

Week 1

➢ Complete the Georgia Library Media Association (GLMA) self-assessment evaluation rubric prior to implementation to reflect on the current condition of the library media program regarding collaboration. Attach documentation to validate ratings.

➢ Share data results of this study.
   o The study was conducted because of the underuse of the library media program to support information literacy. Teachers were interviewed about their experiences with integrating information literacy and technology into the curriculum.
   o There is an obvious effort to incorporate information literacy and technology into the curriculum. Teachers across the school are working diligently to incorporate vocabulary and writing strategies into their lessons.
   o Challenges do inhibit this integration. Some teachers expressed that they were not sure what information literacy was or how to integrate some of the standards into their lessons. Teachers were also concerned about students' lack of technology skills.
   o Teachers were unaware of the role of the SLMS as an instructional partner.
   o Create an electronic folder. Download all agendas into it.

➢ Share implementation timeline for professional development
   o Use data projector to display Figure 1

Week 2

➢ Share *PowerPoint* presentation (Appendix A)
   o Day 1 present slides 1-19; Day 2 present slides 20-21
   o See facilitator notes on each slide

Week 3

➢ Discuss teachers' proposed revisions to lesson; revise again if needed
   o Meet with teachers per department/grade. Math, science, and exploratory will meet one day and social studies and English language arts will meet the second day. Meet with each department on their common planning time.

- o Access the revised lesson plans from the share drive. Make sure the collaborative lesson plan template is completed. Complete any sections that might have been left blank. Discuss the activities planned so that everyone knows their role. Revise the plans if needed.

- ➢ Develop rubrics if needed
    - o Teachers can access rubistar.4teachers.org to help with the development of rubrics.

- ➢ Save all revisions to share file
    - o Access the share drive and save all completed collaborative lesson plans into the electronic portfolio created week one.

- ➢ Schedule date to implement lesson
    - o Teachers with common lesson plans will be scheduled so that the SLMS works with one teacher the first 45 minutes of the class and the second 45 minutes with the partner teacher.

Week 4

Day 1

- ➢ Teachers share their current integration of the Promethean board
    - o Teachers come to the board to demonstrate if feasible.

- ➢ Explore Promethean tool: annotate over desktop
    - o Ask teachers to open ActivInspire on their laptops. Demonstrate how to use the annotate over desktop tool with an image, word document, Internet article, page from a novel, and eBook giving examples of how it would be used in the classroom. Demonstrate the pen, highlighter, reset page, and spray bottle tools.
    - o Have teachers work from their laptops to practice using the annotate over desktop tool with an image or graphic, word document, and article from an Internet site.
    - o Teachers will come to the board and practice using the annotate tool in combination with the Promethean pen and scanner. Teachers will experiment scanning a page from a novel, student work sample, magazine article, or newspaper article. Teachers will demonstrate and share ideas of activities students could perform with the interactive tool that support the standards. For example, they could have students highlight figurative language from a sample passage or label a diagram, picture, or map.

- ➢ Create username and password for Promethean Planet
    - o Teachers are to access prometheanplanet.com and create an account.

➢ Explore Prometheanplanet.com for flipcharts, lesson plans, and resources packs
  o Point out to teachers the resources tab and how to search by state standard. Demonstrate how to download, open, and edit a flip chart.
  o Allow teachers time to look at the flipcharts available.
  o Those teachers who did not get to practice with the board come one at a time to practice while others are exploring Promethean Planet.

➢ Take pictures of teachers participating in the professional development to include in the electronic portfolio, system newsletter, and school web page.

Day 2

➢ Examine unit plans to integrate or revise a Promethean activity
  o Teachers are to integrate the annotate over desktop activity or include a flipchart. Teachers may continue exploring Promethean Planet if they choose.
  o If modeling and support by the SLMS needed, complete the collaborative lesson plan template
  o Save revisions to share file

➢ Share proposed revisions via Promethean board
  o SLMS and teachers offer feedback and suggestions to improve the lesson.

➢ Schedule date for implementation of Promethean activity if modeling and support needed by the SLMS

➢ Take pictures of collaborative activities to share in system newsletter and on school web page.

Weeks 5-9

➢ Co-teach lessons
  o After collaborative activity is complete, scan student work samples and include in the electronic portfolio.
  o Co-teach lessons per schedule. Notify administrators via e-mail of your schedule inviting them to observe the collaborative process.

➢ Complete formative feedback collaboration form
  o This is to be completed with the teacher and the SLMS during teachers' planning immediately following the implementation.

➢ Report successes during faculty meetings

- o Report how the collaborative lessons enhanced instruction and supported the standards.

- ➢ Write success articles in system newsletter
  - o Highlight in the article collaboration with the SLMS to promote information literacy among students and include pictures if available.

- ➢ Post pictures of collaborative lessons on school web page.
  - o Take pictures of teachers conducting the collaborative activities to include in the electronic portfolio, system newsletter, and school web page.

Week 10

- ➢ Conduct Technology Needs Survey (Appendix A). Use SurveyMonkey.com to recreate the ranking survey. E-mail participants Monday asking them to complete the survey by Friday. Send out an e-mail reminder Thursday for teachers who have not completed the survey to do so. After all responses are in, collect responses from Survey Monkey and plan for the next professional development sessions based on the top three choices.

May

- ➢ Access the media center's schedule of collaborative activities to compare this year's library media usage, after the implementation of the professional development, to last year's number of collaborative activities. Note if there was an increase or decrease. Post these results in the electronic portfolio.

- ➢ Access the school's CRCT scores by grade. Compare this year's scores in the areas of information and media literacy, and research and writing. Also, compare this year's Eighth Grade Technology Literacy scores to previous year's scores. Note areas of strengths and weaknesses to inform future professional development. Share these results with faculty and administration.

- ➢ Administer the Professional Development Summative Evaluation via Survey Monkey to all participants. Collect responses to inform future professional development sessions.

- ➢ Complete the Georgia Library Media Association (GLMA) self-assessment evaluation rubric to improve future collaboration and set goals. Attach documentation to validate the ratings. Compare results to the rubric completed at the beginning of the year noting if levels of proficiency increased.
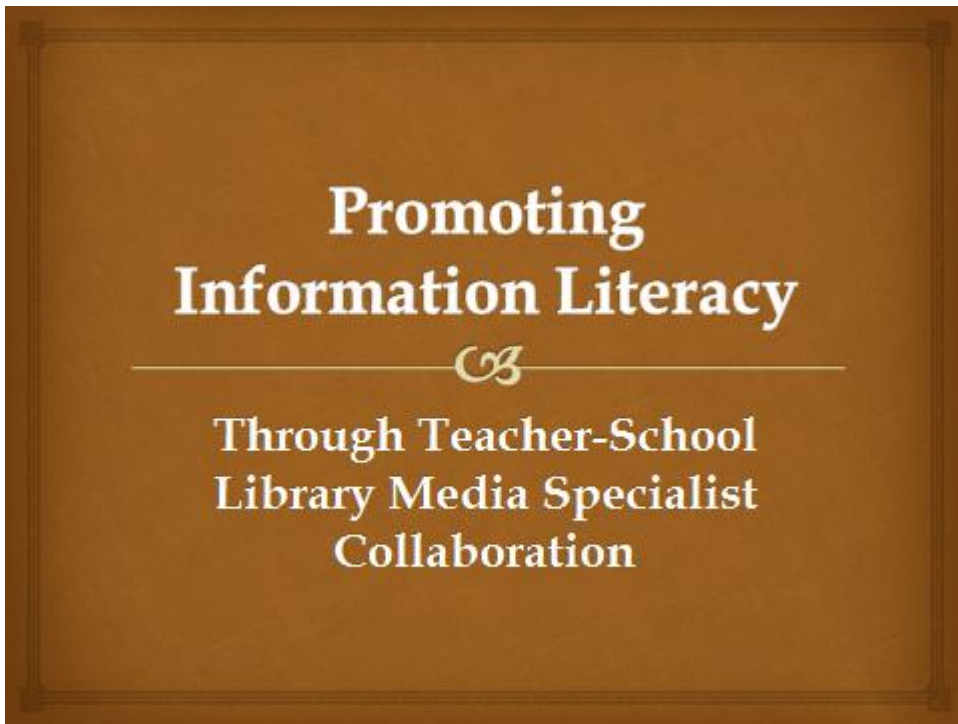
Slide 1

Facilitator Notes:
Welcome teachers. Light refreshments should be available for teachers to enjoy.
Distribute print copies of information literacy standards, sticky notes, pens, pencils, and
highlighters at table for everyone to use. After approximately 10 minutes, introduce
yourself and give a brief overview of the presentation.
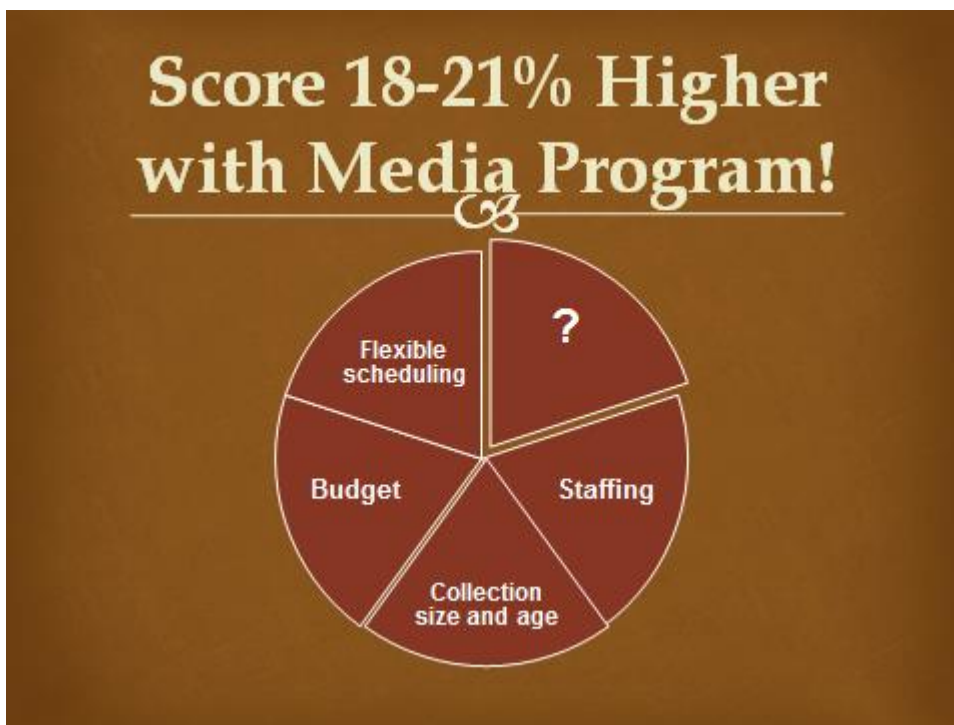
Slide 2

Facilitator Notes:
Studies show that schools with strong media programs score 18-21% higher on state exams than those who do not have strong media programs. Components that make up a strong media program include a program with flexible scheduling. Flexible scheduling means that teachers and students visit the media center at the time of instructional need. For example, a student comes to check out a book as soon as he is finished reading one. He does not have to wait for the teacher to bring the class as a whole. The teachers sign up to use the media center when they are completing research projects for lessons on the process. The media specialist does not hold scheduled classes and teach isolated library lesson. Schools without flexible scheduling usually have a set schedule where teachers leave their students with the media specialist to teach isolated library lessons while they have common planning time. On flexible scheduling teachers do not leave their students, and there is no set schedule. Media centers must also be provided funds to purchase books (print and digital), software, and hardware. The budget must allow the media specialist to maintain a collection that is appropriate in size to the population of the school. Materials must also adhere to age guidelines set by the state. The media specialist must also have a paraprofessional to help with maintaining the media center (e.g. shelving books, laminating, checking in and out books), while the media specialist is working with teachers and students on instruction. Our school has flexible scheduling, a healthy budget, a great collection, and a paraprofessional. The question mark denotes collaboration as discussed on the next slide.

Slide 3

Facilitator Notes:
So, what are we missing? What can we do to improve instruction for students and ultimately increase test scores? We, teachers and the SLMS, can collaborate. What does this mean? This means that the SLMS and teacher work together to teach information literacy. We identify an instructional need based on standards and tests scores, and then co-plan, co-teach, and co-assess the lesson. Teachers and the SLMS also work together to identify areas of instruction needed by the teachers such as how to integrate information literacy or technology into the curriculum. The SLMS then provides professional development to target those needs. We are doing well on standardized tests, but let us look at areas where we can improve to move students from minimally meeting standards to exceeding standards.

Slide 4

Facilitator Notes:
For schools that want to move students from minimally meeting standards to exceeding standards, like ours, it is important to dissect the CRCT scores. For example, since we have a high percentage of students passing the CRCT in reading, I have pulled the report that shows what percentage of questions students missed at each grade level. You can see that with reading skills and vocabulary for 6th grade, 40% of the questions were missed. Mention strategies that teachers are implementing to target those areas. For example, "You are well aware that students struggle with vocabulary, and you have begun implementing vocabulary strategies in your classrooms to improve these scores. In the area of literary comprehension, we have implemented common core and you have added novels to increase the rigor of instruction." Look at information and media literacy scores.

Slide 5

Facilitator Notes:
These scores are examples of a high percentage of students not meeting standards. Again, mention strategies that teachers have incorporated to target the problem areas. For example, "You, too, are integrating vocabulary to help with the low scores in your content area and English language arts. You have also incorporated more discussion type questions to improve students' writing." With science and social studies, we need to move students from not meeting, to meeting and cannot forget about those we want to move to exceeding standards. With common core, you have also been asked to implement literacy standards for reading and writing in your content areas.

Slide 6

Facilitator Notes:
GCMS is below the state average on the 8th grade writing test. Twenty-nine percent of students at GCMS did not meet standards and only 1% exceeded state standards. With the incorporation now of the literacy standards for writing in science, social studies, and technical subjects, we are all responsible for these scores.

8th Grade Technology Literacy Test

50% did not meet standards

- 54% do not know how to use technology to locate, evaluate, collect, and process information from various sources.
- 45% had difficulty evaluating resources to determine the most appropriate tool to use for accomplishing a specific task.

Continued

- 68% could not identify appropriate technology tools and resources by evaluating the accuracy, appropriateness, and bias of the resource.
- 54% showed weaknesses in using technology resources for solving problems and making informed decisions.

Slides 7-8

Facilitator Notes:

The scores listed here are those with which students at GCMS had the most trouble. These skills are now integrated in the literacy standards (e.g. L6-8WHST1, L6-8WHST8) for reading and writing in social studies, science, and the technical subjects. We can also see these are topics associated with research and writing found in the English language arts portion of the CRCT.

What is information literacy?

Slide 9

Facilitator Notes:
 "Information" includes visual, textual, and digital.
What are examples of activities that you include in your lessons that target information literacy based upon this definition?
What are some challenges you encounter when trying to integrate the research process into the curriculum?

Use *PowerPoint* and generate a graphic organizer, like the examples below, and have teachers share their responses using the Promethean board and the annotate over desktop tool that you will be demonstrating. You may also use an online graphic organizer from Promethean Planet. When using this organizer, mention to teachers that they can also use these electronic organizers, an alternative to pencil and paper, with their students to organize and learn content.
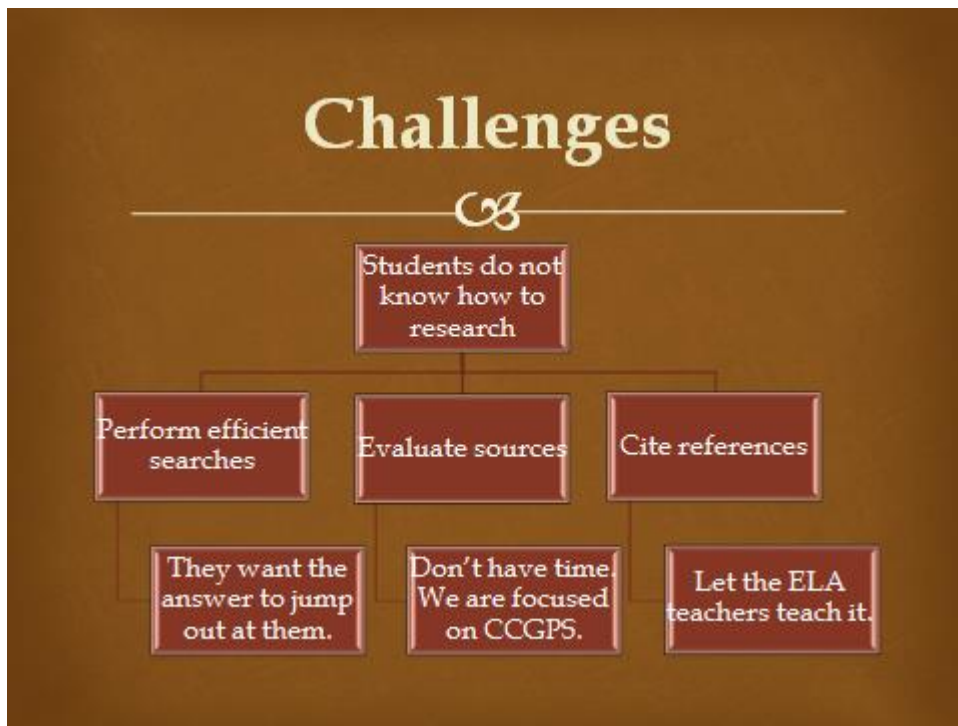
Slide 10

Facilitator Notes:
Do students know how to perform efficient searches? Or, do they expect the answer to jump out at them? Do you believe you do not have time to teach students to evaluate and cite sources? Have you ever said, "Just let the ELA teachers teach it"? You are not alone. According to the information literacy standards and the CCGPS, all teachers are responsible for teaching these skills. These are common challenges experienced by teachers.

Slide 11

Facilitator Notes:
Do you also have students who are not technology savvy and do not know how to use common software products such as Word or PowerPoint? So, you opt out because you just cannot teach everything? Thus, we create a cycle effect.

Slide 12

Facilitator notes:
Do you believe that you are alone in teaching students how to use technology? Do some of your fears include students breaking the equipment or going to inappropriate sites? In addition, when they do this, do you believe it is a poor reflection on you and your classroom management skills? So, rather than taking these risks you simply opt out. Remind teachers that these are legitimate fears, but we cannot let that stop us from giving students access to technology and teaching the standards. The challenges mentioned can be alleviated.

Slide 13

Facilitator Notes:

You are not alone! The SLMS is here to help you integrate all aspects of the research process and the information literacy standards into the curriculum. We work collaboratively on lessons that include the use of software products such as *Microsoft Office*. Collaboratively we can both ensure students adhere to acceptable use when working with technology.

Slide 14

Facilitator Notes:
We will develop lessons that integrate literacy standards into the content standards. We will not develop isolated lessons that have nothing to do with your content. Notice the content is always the top priority. We only use technology when it will enhance the lesson. For example, a teacher teaching this standard might simply give the students the causes and effects, the students take notes, and then they study them to regurgitate for a test, but only to forget the information as soon as the test is over. Another teacher might have them take the information he or she gave them and put it onto a poster. But, to make it more meaningful to the students, the teacher could have them research the effects and then present that information in a brochure including pictures to support the text. Remember, you do not have to teach all the components of research in one project. For example, for this project, we may not need to teach students how to narrow searches or evaluate sources because we decide to give them the sources we want them to use. If we decided to have the students develop a brochure, I would do a mini lesson on how to use *Publisher* to create brochures. The more they use the technology, the faster they will get.

Slide 15

Facilitator Notes:
These are just a few examples of the mini lessons we can implement.
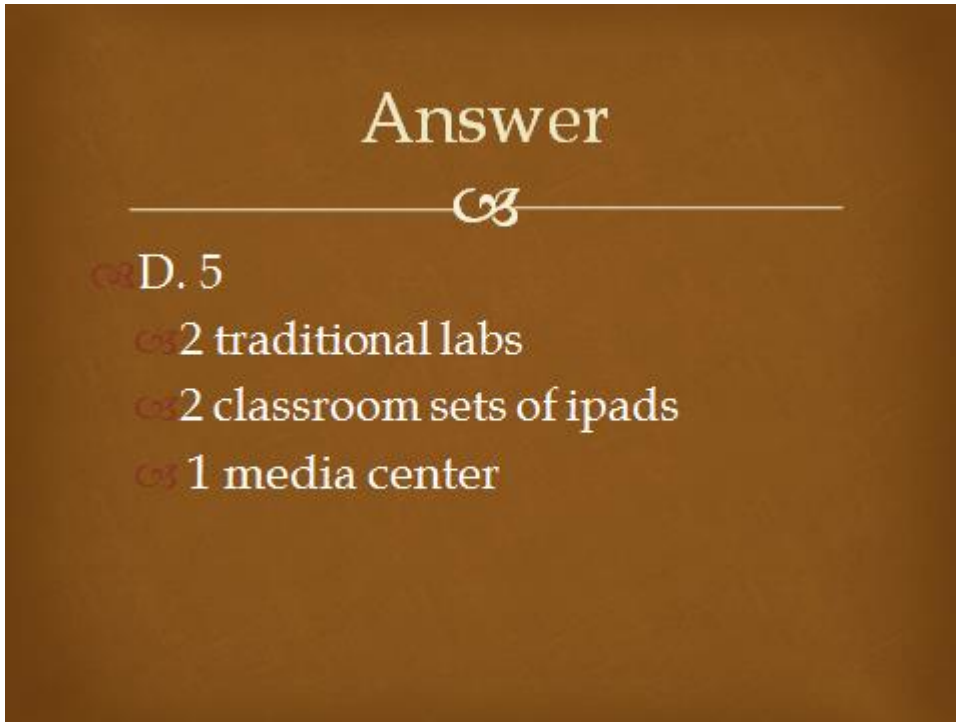
Slide 16

Facilitator Notes:
Pass out the classroom performance system (CPS) clickers. Have teachers use the clickers to answer this question. Show teachers the graph that displays how many got the answer right and how many got it wrong. Ask a few volunteers to explain what answer they chose and to explain why they chose that answer.
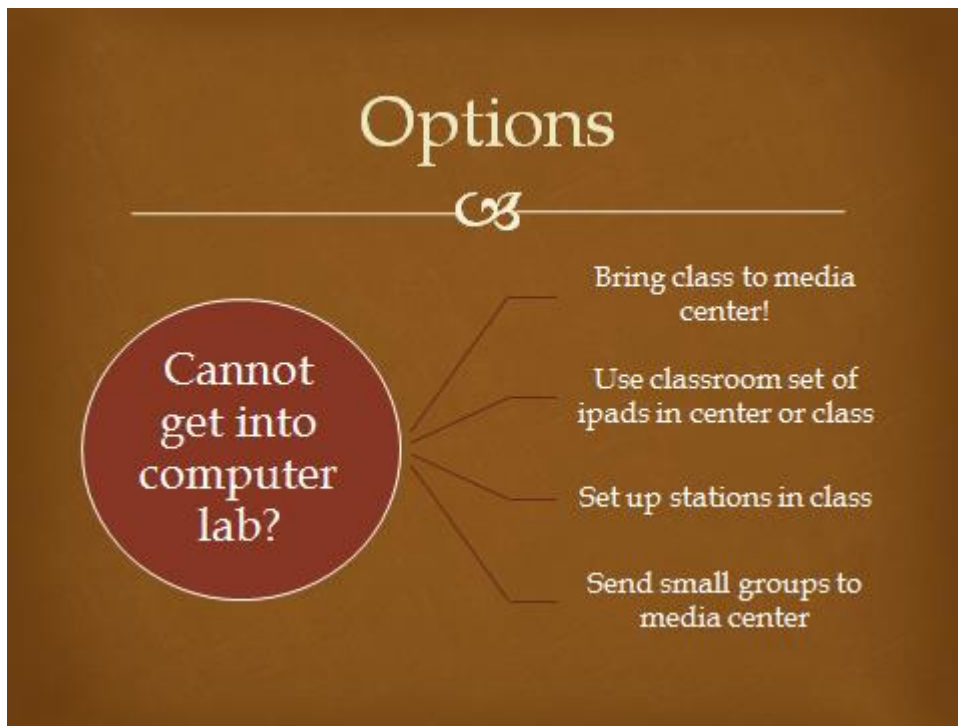
Slide 17

Facilitator Notes:
How many included the media center as a lab? Do not forget you can bring students to the media center. Although we do not have a class set of desktop computers, we can supplement with laptops and iPads. Referring back to the effects of human activity on the earth's surface, can you think of various ways we could have students get the research done with the use of the "labs" that we have?

Slide 18

Facilitator Notes:
It is often easier to take the whole class to the lab and everyone works on the same thing at the same time. However, the computer labs are not always available or we might feel overwhelmed with keeping that many students on task at the computers or on the iPads. You might also be afraid of them breaking the equipment. You can bring the class to the media center and we can supplement the desktops with laptops and iPads so that everyone is working on the same thing at the same time.
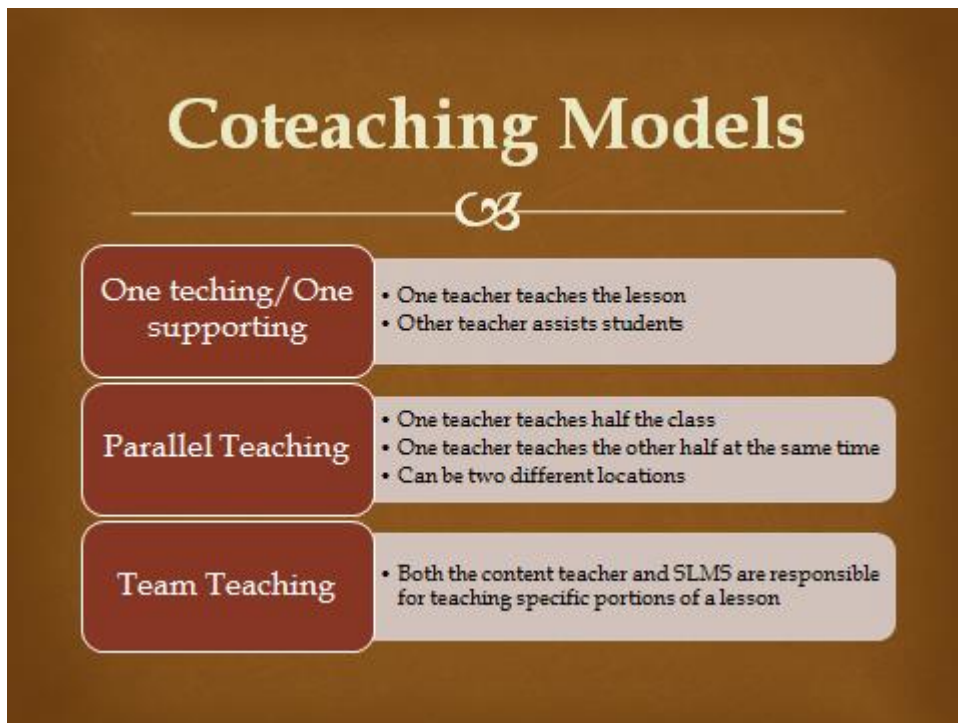
Slide 19

Facilitator Notes:
Using the example of the effects of human activity on the earth's surface, the SLMS could teach the mini lesson while the teacher assists students once they get on the computers – one teaching/one supporting model. With parallel teaching, the SLMS could take the students who have no experience with *Publisher* and teach them in the media center, while the teacher works with the students who have experience in her classroom. With team teaching, the teacher might teach students how he or she wants the brochure formatted and the SLMS could teach students how to insert graphics.

Slide 20

Facilitator Notes:
Teachers are to get with their department and identify a common lesson plan to include or revise an information literacy standard activity. The activity should be revised so that there is collaboration with the SLMS. Teachers are to access the collaborative lesson plan template from the share file and save their revisions. The template should be filled out completely. The lesson activity should not exceed 45 minutes so that all lessons can be implemented according to the timeline. The SLMS will circulate around the room during the process suggesting activities he or she can provide for each lesson and answering any questions teachers may have. After 30 minutes, teachers share their revised activity via the Promethean board. Peers and the SLMS offer feedback on the revised lessons.
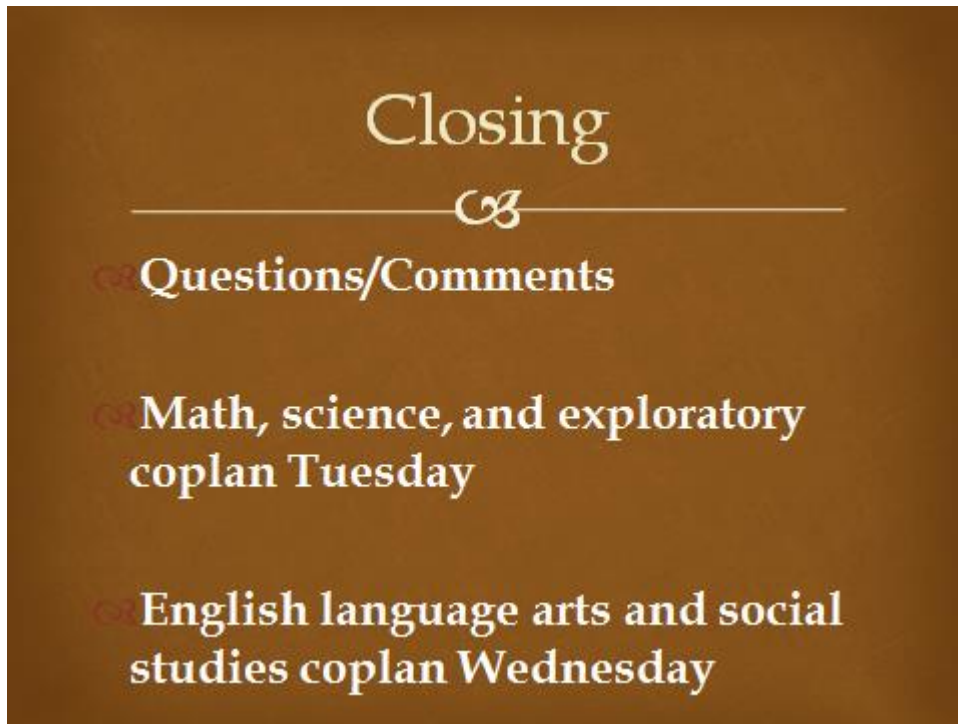
Slide 21

Facilitator Notes:
Teachers note when they are to meet again with the SLMS. They will meet on two separate days next week to discuss proposed revisions. Math will meet for the first 30 minutes of the 90 minute planning block, science the second, and exploratory the third. English language arts will meet the first 30 minutes and social studies the second. Remind teachers to bring their laptops to the next meeting.

Sample Collaborative Lesson Plan Template

Teacher's Name:
Dates of Implementation:
Title of Activity:
Common Core Standards:
Information Literacy Standards:
Essential Question:

Duration of Lesson: 20 min 45 min 60 min 90 min Other_____	Location(s) of Lesson: Media Center Classroom Computer Lab	Coteaching Strategy: One Teach/One Support Parallel Teaching Station Teaching Team Teaching
Resources Needed:		

Teacher's Responsibilities	Media Specialist's Responsibilities	Students' Responsibilities
Opening:		
Mini Lesson:		
Work Session:		
Closing:		

Technology Needs Survey

Please rank the top three technology tools you are most interested in learning more about

in future professional development sessions.

_____ Classroom Performance System (clickers)

_____ Document Camera

_____Scanner

_____Advanced Promethean Training

_____Promethean Slate

_____iPads

_____iPad Apps

_____*Microsoft Office*

_____*Renaissance Place*

_____Galileo

_____Lexile Analyzer

_____Camera

_____Video Camera

_____Other:_____ (Please Specify)

Formative Feedback Collaboration Form

Title of Lesson: _____

Date(s) Lesson Implemented: _____

Content Standards: _____

Information Literacy Standards: _____

Did students meet standards? Regular Ed _____ Special Ed_____ ELL_____

Strengths of Lesson:

_____

_____

_____

_____

Weaknesses of Lesson:

_____

_____

_____

_____

Proposed Changes to Lesson:

_____

_____

_____

Signatures: _____   _____

_____   _____

Professional Development Formative Evaluation

Title of Professional Development: Information Literacy Collaborative Lesson

Adequate planning time was provided to co-write the lesson.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
Opportunities were provided to offer input when planning lesson.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
Lesson delivery was a collaborative effort.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
The SLMS was available to address questions or concerns before and after collaborative planning.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
The SLMS was available to address questions or concerns before and after lesson delivery.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
Working collaboratively enhanced instruction.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
Working collaboratively lessened challenges previously experienced with integrating information literacy/technology.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I prefer this type of professional development versus traditional workshops.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I will use the collaborative lesson again.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
If you disagree or somewhat disagree to using this collaborative lesson again, please explain.				
Additional comments or concerns regarding this professional development experience.				

Professional Development Summative Evaluation

Title of Professional Development: Promoting Information Literacy through Teacher -

School Library Media Specialist Collaboration

As a direct result of this professional development:

I have a better understanding of the role of the SLMS.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I have a better understanding of the impact of library media programs on student achievement.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I know how to collaborate with the SLMS to integrate information literacy into the curriculum.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I know how to collaborate with the SLMS to integrate technology into the curriculum.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
I made changes to instruction as a direct result of this professional development.	Agree	Somewhat Agree	Disagree	Somewhat Disagree
If you agree or somewhat agree to making changes to instruction as a direct result of the professional development, what changes to instruction did you make?				
If you disagree or somewhat disagree to making changes to instruction as a direct result of the professional development, what services do you need from the SLMS to integrate the media program into instruction?				

Appendix B: Interview Questions

1. Tell me a little about yourself in regards to your position here at GCMS.

2. How are you currently incorporating information literacy into your lessons?

3. What resources do you generally have your students use?

4. What is the appeal or advantages to using those resources? What are the disadvantages, if any?

5. Which resources do you find less appealing to use? Why?

6. What challenges are you encountering with incorporating the new information literacy standards into your lessons, if any?

7. In what formats do students present their findings to the information literacy activities? (e.g. poster, report, PowerPoint, summary, oral presentation)

8. What types of activities do students complete in your class that require the use of technology?

9. What challenges do you encounter with the integration of student use of technology into the curriculum, if any?

10. Which technologies are you comfortable integrating into the curriculum? Which technologies do you believe you need more training to use effectively with students?

11. What services are you aware of that the school library media program offers to support instruction and student achievement?

Appendix C: Consent Form

CONSENT FORM

You are invited to take part in a research study of teachers' experiences with integrating information literacy skills and student use of technology into the curriculum. The researcher is inviting all teachers who teach content or exploratory classes to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Pamela Taylor who is a doctoral student at Walden University. You may already know the researcher as the school library media specialist at GCMS, but this study is separate from that role.

Background Information:
The purpose of this study is to investigate teachers' experiences with integrating information literacy skills into the curriculum and provide possible collaboration strategies that might enhance that integration and support student achievement**.**

Procedures:
If you agree to be in this study, you will be asked to:
- Participate in one face-to-face interview that will be audio recorded and last approximately 45-60 minutes.
- Allow me to access your 2012-2013 lesson plans, which are on file with administration.
- Read the interview transcript to check that an accurate representation has been made.

Here are some sample questions:
- How are you currently incorporating information literacy into your lessons?
- What challenges are you encountering with incorporating the new information literacy standards into your lessons, if any?
- What types of activities do students complete in your class that require the use of technology?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at Grace County Middle School will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue or stress. Being in this study would not pose risk to your safety or wellbeing. This study's potential benefits include offering possible collaboration strategies that may enhance the integration of information literacy skills and student use of technology into the curriculum and support student achievement.

Payment:
There will be no monetary compensation for participating in the study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by saving information on password protected storage devices and placing handwritten notes in a locked fireproof safe. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at ████████████ or email at Pamela.taylor1@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is 03-21-13-0088441 and it expires on March 20, 2014.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant

Date of consent   _____

Participant's Signature   _____

Researcher's Signature   _____