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More Than a Search Engine: Undergraduate Perspectives on Library Instruction

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**MORE THAN A SEARCH ENGINE:
UNDERGRADUATE PERSPECTIVES ON LIBRARY
INSTRUCTION**

KRISTINE VICK

**Submitted in partial fulfillment of the requirements for
the degree of Master of Arts in Education**

**AUGSBURG COLLEGE
MINNEAPOLIS, MINNESOTA**

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CERTIFICATE OF APPROVAL

This is to certify that the Action Research Project of

Kristine Vick

has been approved by the Review Committee, and fulfills the requirements for the
Master of Arts in Education degree.

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ABSTRACT

MORE THAN A SEARCH ENGINE: UNDERGRADUATE PERSPECTIVES ON LIBRARY INSTRUCTION

KRISTINE VICK

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Action Research Project

Historically, libraries have been repositories of knowledge for scholars. Overtime, libraries have evolved into media centers that include digital access points, instructional spaces, and comfortable gathering places. As school libraries transition to accommodate the 21st century learner, are educators meeting the needs of the college and career bound students they serve? The purpose of this qualitative study was to gain insight into the information literacy instruction that occurs in high school libraries. Specifically, how effective this instruction was in preparing students for college. This research was conducted with five undergraduates attending college in a variety of public and private institutions. Data was collected through personal interviews with each college student. Data was gathered to determine the undergraduates' perspectives on their high school library instruction and how it helped them in college. The resulting themes indicated that participants perceived their information literacy instruction to be adequate and identified ways to enrich their high school experiences which would have eased their transition to college. The findings provide a platform for high school librarians and educators to identify successful practices and work toward collaborative teaching strategies that enhance information literacy instruction.

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Chapter One

Introduction

Entering a library can be ominous for some people while others view entry as a respite from the outside world. Either way, libraries are traditionally scholarly and solemn places to read, reflect, research, and work quietly. For some high school students, this experience is different. Often times, students are directed to the library or media center by their teacher to conduct research, select books, or utilize technology. If students choose to use the library independently of their classes, often times verbal permission from a teacher or a hall pass is required to enter the space. If the library space is monitored or constrained then access to the library books, computers, and other resources are restricted, which thwarts the efforts of motivated students. For educators, who encourage students to study outside of class and librarians who wish to create a space that is welcoming, library resources must be readily available for patrons. Certainly, from the student's perspective when libraries are difficult to access or are punitive, using the library becomes a chore. Worse, it becomes invisible to the student.

Students need a welcoming space that is conducive to collaborative efforts, gives them the opportunity to develop independent research skills, and provides sound instruction for both print and digital resources. Access and consistent library use creates a sense of belonging and provides a solid foundation of skills for students. Using the library consistently is good practice especially as students navigate their way to post secondary institutions. Regardless of their success in

high school some students feel overwhelmed by academic pressures when they enter college. Social adjustments must also be considered as college success is measured. This study will not include all of the social competencies necessary for the success of college students, but will consider belonging and/or sense of community as a theme that emerged from the collected data.

As a librarian for secondary students, information literacy education is paramount in the library/media center curriculum. It is my professional goal to engage learners in a way that promotes critical thinking. Engaging students with quality resources in a meaningful way, gives students the opportunity to apply information and relate to new concepts. As an educator it is important to provide learning opportunities that include technology and cross disciplines. Information literacy instruction is one way to bridge the learning that occurs within our classrooms.

Young scholars who are entering college have plenty of adjustments to make their first couple of years. This study acknowledges significant adjustments for new college students, but will directly address the information literacy skills and how they affected the students' adaptation to college. Furthermore, this study does not intend to make a direct correlation between information literacy skills and college dropout rates, but will examine quantitative data for college dropout rates simply to establish a basis for this study.

In 2008, the collaborative efforts of the National Governors Association, the Council of Chief State School Officers, and Achieve, a bipartisan, non-profit organization developed by business leaders and governors, produced a report

entitled “Ensuring U.S. Students Receive a World Class Education”. The report concludes that in 2006, the U.S. lost their first place ranking in college and university graduation rates moving to 14th out of 30 nations in post-secondary graduation. Dropping below not one, but several nations in college and university matriculation is cause for concern. It is in the best interest of all U.S. citizens to ensure students receive an education that allows them to compete in a global economy. However, it is not enough to increase the educational achievement of select members of the student community. The nation must address the needs of all students equally, which includes English Language Learners (ELL) and students with Special Education requirements (SPED).

Developing a common set of K-12 assessments and standards is one way to facilitate equality for all students across America. However, not all states are adopting these standards. Minnesota is one of only nine states adopting mandatory requirements for high school graduation. These new requirements, scheduled for implementation by 2015 are aligning with federal College and Career Ready (CCR) standards. For Minnesota to fulfill the CCR standards, schools must ensure that all students participate in English and Math classes that include curriculum that completely covers the Common Core State Standards (CCSS). The common core state standards are not curriculum. Rather, they are a set of defined educational goals that create a platform of equality for learning across the United States, the District of Columbia, and U.S. Territories. The curriculum content taught in classrooms is determined by individual school districts. It is the responsibility of each teacher to develop and deliver lessons that

aligns with the common core standards. In other words, it is the decision of each school to select and develop course content and curriculum that meets the goals set by the CCSS then it is up to the individual teacher to monitor the delivery of the specific course content.

Addressing the goals of the CCSS is the responsibility of the school district, teachers, and other educational professionals including librarians. Supporting the classroom curriculum with access to quality information resources and teaching students how to use that information is the role of librarians or media specialists. But some researchers feel that new ways of viewing the role of the librarian would be helpful to education. They explore new ways of viewing the librarians' position, which would "move teacher/librarians to the forefront, [and] change the stale notion that libraries are a supportive role" (Education, 2007).

Purpose Statement

The purpose of this Action Research (Mills, 2007) project is to explore the perspectives of current college students and examine how their high school library instruction prepared them for the academic rigors of college. Specifically this research attempts to answer the question: Are high school students getting information literacy instruction that adequately prepares them for college level writing/research assignments?

Importance of Study

It is the intent of this study to identify information that may be useful to anyone who teaches literacy skills to high school students. This could include

individual subject teachers (English, social studies, sciences, arts), librarians, and administrators who may affirm student achievement within their school as meeting or perhaps exceeding writing/research goals and meets the CCSS. Even though educators are meeting the requirements of the CCSS, they could still benefit from the reflections of college students to improve curriculum, teaching methods, and academic learning strategies. Data from this study can help identify ways to measure and acknowledge the benefit of literary instruction and how it relates to student achievement in college. By examining the perspectives of the participants, this study attempts to identify ways to incorporate information literacy skills that help to facilitate a seamless transition from high school to college or careers. Simply put, how can librarians support or enrich the gathering and evaluation of information? Furthermore, how can library staff help students utilize this knowledge to develop skills necessary for post high school success? Information literacy instruction, as it relates to library media, technology, research and writing is the focus of this paper.

In the past several years the increase in technology has redefined how high school libraries are utilized expanding the role of librarians and in turn, library patrons. Library users, specifically high school students, must embrace technological change and simultaneously manage the academic rigor that is required for high school graduation and post secondary success. In an effort to prepare high school students for success in college and beyond, information literacy instruction in collaboration with classroom curriculum could enhance the skill set required. Information literacy, defined by Latham and Gross as “the

ability to access, evaluate and use information effectively and ethically” is a skill set that is increasingly acknowledged as an area that varies within K-12 and higher education (Latham & Gross, 2008; Seymour, 2007; American Library Association, 1989; Hart, 2005; Educational Testing Service, 2008). Higher education is concerned with the varying degrees of ability within student populations and the greater community, especially the skill set of incoming college freshmen. Harris notes that the Pew report (2002) on college students indicated that most students do not know how to find on-line resources or have not learned how to access them (Harris, 2011). Exposing this inconsistency in student proficiency alerts educators to the dilemma and creates a place for scholars to begin research. The variation in skill set and knowledge base that exists within each student, varied expectations within high schools, resources available to students, and the expectations of post secondary institutions are considered.

Responding to these discrepancies in resources and knowledge challenges educators to consider their obligation to students, reconsider the role of librarians/media specialists, and develop collaborative relationships that work toward closing gaps in student learning. This may prove difficult for some educators who choose not to collaborate with librarians, or for some librarians who view their role as gatekeepers of information and libraries as a place to study in quiet isolation. These attitudes are antiquated.

In fact, the notion of libraries as a place that encourages solitary efforts of young people actually competes with the social maturation of teens. Harris

discusses the work of Grinter and Palen (2002), which reveals that the job of a teen is to “learn how to be a communicator in order to build social relationships and feelings of belonging” (Grinter & Palen, 2002). Ignoring the social development stages of children does little to create a sense of belonging.

According to Bentro, Brokenleg, and Van Bockern (2002), the sense of belonging is critical to appropriate child development. Assuming proper development is part of the equation for successful learning, then children who are well balanced emotionally, behaviorally and socially¹ will have the foundation for success in school. If students are in a state that is conducive to learning and educators are meeting their educational needs as high school students, then one could expect the post high school trajectory to be successful. Creating successful learning opportunities for students, which augments information literacy instruction, includes rethinking the traditional role of librarians and libraries.

Redefining the Perception of Libraries

To accommodate the 21st century learner the function of librarians and libraries must shift. Similarly the view of educators and administrators must shift to support library personnel in their efforts to create a library space that is welcoming, creates a sense of belonging for students, and facilitates the best learning environment. This may include multiple uses or spaces to accommodate various learning types. Library spaces may extend into the classroom and librarians may overlap and collaborate with classroom teachers. It is important

¹ Social Emotional Behavior includes impulsiveness, poor judgment, lack of self-esteem, unable to read nonverbal cues accurately and difficulty functioning independently.

for librarians to understand the needs of special education students, respect the cultural differences of English language learners, and most importantly to understand how to educate all types of learners. Furthermore, the role of the student is under scrutiny to ensure they become good consumers of information and good stewards of that same information. With increased literary responsibility and emphasis on technology are educators, specifically librarians, teaching students how to effectively navigate the copious amounts of information available via the internet, subscription databases, and indexes? Moreover, do students possess the necessary skills to effectively evaluate the quality of internet sources or relevance of database sources?

Chapter Two

Review of the Literature

Benjamin Franklin and several others founded the first lending library in 1731 to share their resources. Pooling their money to purchase a collection of books to share and contributing their own books so they may “consult them” (McMenamin, 2013 p. 94), was prudent. At the time, books were difficult to obtain because of the expense and were unavailable unless they shipped from Europe. Franklin wanted this consortium because he loved books, but also because as a visionary, he wished to share knowledge (McMenamin, 2013). He thought that if people believed in a common cause, working together was a way to accomplish more (Lemay, 2006). The motto, “To pour forth benefits for the common good is divine” is one that Franklin may have coined (Lemay, 2006). His lending library was not immediately successful. In fact, he felt disappointed if books sustained damage and was discouraged if books went missing. Although Ben Franklin overcame these hurdles, evidence by the existence of The Library Company, his concerns are similar to that of today’s librarians. They hope to provide a collection of resources that are only available due to collaborative efforts. Similarly, they are discouraged when resources are lost or damaged. His notion of working together toward a common cause is one that continues today.

Several organizations are working together to provide the foundation for young people to succeed in college. Despite the ongoing efforts of secondary and post secondary educators, the American Association of School Librarians, and the

Association of College and Research Libraries, researchers (Owen, 2010; Crawford & Furlong, 1999; Garson & McGowan 2011; Latham & Gross, 2008; Allen, 2007; and Carr, 2012), data indicate that students are entering college lacking the skill set necessary to analyze and disseminate complex information. The findings of three separate studies by Latham and Gross (2008), where college undergraduates were queried to evaluate his/her own high school literacy instruction suggests, students who are proficient in academic disciplines other than information literacy, do not recognize the value of information literacy or perceive a need to improve his/her skills. Exclusively questioning college students does not address the argument that Sullivan and Dallas (2010) have made which suggests, the fundamental differences between a high school and college setting are contributing to the information literacy gap.

This study examines the information literacy gap between secondary and postsecondary education and specifically considers the information literacy skills taught in high school libraries and considers how high school students perceive information literacy skills to equip them for a successful transition to college.

Information Literacy

High quality information literacy instruction that includes but is not limited to research strategies, evaluating on-line resources (database, web), and effectively communicating the gathered information, is paramount for high school students to develop the skills necessary to succeed in post secondary institutions. In fact, the Common Core Standards sums it up this way:

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing happen, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response for change (National Governors Association Center for Best Practices, Council of Chief State School Officers 2010, p. 48).

According to this excerpt from the CCSS, students must adapt to change.

Certainly, anything that happens post high school is a change. Are we preparing these students for what lies ahead?

Technology

Providing a safe place to explore literature, conduct inquiries for research, read, and reflect is what libraries have traditionally offered. Creating this environment is synonymous with belonging. Students who have access to librarians, information resources, and the confidence to ask for assistance situate themselves for success in their academic careers. The availability of technology changes the physical environment of libraries to include virtual spaces as well. These virtual spaces consist of on-line databases, the world-wide-web, and the potential for on-line learning. Opening this information up to high school students gives them unlimited access to information with relative ease. Access to the volume of information available may actually overwhelm students, which

inadvertently encourages using the first few articles, which may not be relevant to their coursework or project (Harris, 2011). Students are required to not only know how to access these on-line sources using search keywords, but they must understand how to evaluate and limit their source materials to subject specific information.

Collaboration between educators and librarians is critical when teaching, assessing, and merging classroom curriculum and information literacy skills. Seymour indicates several measures to implement a successful curriculum that meet students needs and provides support for teachers and instructors. One example is the use of assessment tools to identify areas of need for student learning. Another is to integrate information literacy into standards to achieve a higher level of proficiency. Seymour (2007) invites librarians to think outside the box. In doing so she encourages collaboration between educators within a school and suggests that collaboration can happen within a district. Managing the access to relevant information is something librarians have always done. However, the barrage of information that is now available due to technology requires even more thought in the evaluation and careful selection of resources.

Access to scholarly databases, the internet, and current print materials assumes that a high school library has the appropriate funds for resources. This paper does not examine the privilege that comes with the availability of information management or library resources, but does acknowledge the enrichment that is present in schools that provide such resources.

Social Media

Including high school students in virtual and physical libraries and teaching them to navigate the copious amounts of information available, is critical to developing information literacy for college success. Herring offered High School librarians educational criteria for evaluating websites (Herring, 2011). These criteria “focus very specifically on student needs” (Herring, 2011). Web site evaluation as part of an information literacy curriculum that aligns with student activities and considers student differentiation is Herring’s goal. Other high schools are also incorporating information literacy skills into their curriculum and creating forums that include social networking (Hamilton, 2012), which blend informal and formal learning situations. Both Hamilton and Lippencott (2005) discuss forums for students to utilize social networking in conjunction with more formal learning. One example Lippencott mentions is the University of Minnesota. The University of Minnesota hosts student blogs and provides “new learning opportunities for their creators and readers and an enriched array of media for individuals with various learning styles” (University of Minnesota, 2013). Blending social media forums with formal research techniques may confuse students or dilute the importance of using library resources effectively. Other researchers acknowledge the mishandling of internet resources by teenage students, which lead to unfortunate circumstances and an inefficient use of time (Harris, 2011). Furthermore, Harris asserts that teens are not adept at effective internet or database searching and when charged with the task, they focused on the assignment rather than their interest in the topic of study which detracts from deeper learning. When students are not skilled in the

appropriate techniques of research in this case, searching on-line sources, they resort to filling in the blanks rather than thinking critically about the material (Harris, 2011). Ineffective use of the internet is a concern of many educators and parents alike. With this concern in mind educators must provide a learning forum that reinforces the strategies of information literacy. It is the job of educators to carefully delineate the two forums; information literacy is for scholarly work and internet use is limited to other forms of entertainment or knowledge acquisitions. Furthermore educators must teach students how to effectively evaluate and engage with the material in a scholarly manner.

Do colleges have a responsibility to address the information literacy needs of undergraduates?

Several initiatives are exploring this question. Project SAILS was developed and used by Kent State University to measure the information literacy skills of high school seniors. In the report by Educational Testing Service, researchers argue that, “the responsibility should be shared among K-12 schools, higher education and other institutions (Seymour, 2007). Furthermore, the American Association of School Libraries and the Association of College and Research libraries have joined together to publish their recommendations for information literacy collaboration (Seymour, 2007).

Colleges are concerned that students may not have 21st century skills sets required to help them succeed in college. As evident as the need may be colleges like Kent State (Seymour, 2007) and Florida State University (Latham & Gross, 2008) are identifying specific needs and are delivering instruction to support the

demand. At Florida State University researchers Latham and Gross, in response to the defined need by the American Association of School Librarians in *Standards for the 21st Century learner* conducted three separate studies of students who enrolled in college level information literacy classes. In these studies students described their library instruction experiences both in high school and college. They responded to questions asking how they learned research skills, who assisted them in the library or if they were they self-taught. In their study, Latham and Gross found that most of the students were juniors or seniors in college. The results of the studies indicate little if any instruction was available for approximately half of the students and the remaining students reported having received some media center instruction. This instruction was received either as a class participant, from a friend, or as direct instruction from a librarian. When these students were asked to share their optimal method of receiving information literacy instruction, the majority (65%) noted that one on one instruction in a face-to-face environment was the preferred technique. The reason for this preference is the ability to ask questions, which allows for independent practice and provides a comfortable learning atmosphere (Latham and Gross, 2008). The data in this study suggest that students want personal instruction that allows him/her to ask for help when necessary and they want to feel comfortable in their learning environment. In other words, on-line chats and email questions did not alleviate their concerns. Rather, they preferred learning from a person who was present and available for discussion.

The concept of belonging emerges in the data from Latham and Gross's work. Students want to learn in a comfortable environment where they can ask questions. Giving students the ability to ask questions allows them to explore the information more openly and acquire the details to assimilate the knowledge, which ultimately creates a stronger bond with the content. Therefore, they naturally attain the independence required for future data exploration, research, and problem solving.

Are colleges and high schools collaborating to facilitate transitions between secondary and postsecondary information literacy skills?

Educating young adults and equipping college students with twenty-first-century skills is not something that educators are taking lightly. High school curriculums address the post secondary skill set necessary for college. In addition, colleges offer freshman seminars to reinforce the skills necessary and resources available for writing and research. Are colleges teaching information literacy classes because students are unprepared or because they wish to extend the learning trajectory of information literacy education? Florida State University (Latham and Gross, 2008) is one institution offering classes specifically to educate students on library skills.

Working toward a K-20 plan for information literacy instruction is also evident in the SAIL program at Kent State. This program developed in 2001 to measure information literacy skills and "pinpoint areas for improvement" <https://www.projectsails.org> indicates a concern for making information available, regardless of where the instruction occurred. These programs are evidence that

both high school and academic libraries are willing to insure preparation for college students.

As the topic of collaboration expands, innovative ideas and initiatives will continue to define the critical role of high school librarians. Gaining these skills in high school is critical for those who aspire to further their education. As the cost of college increases, it is especially important to provide the necessary instruction for college preparation. Furthermore, information literacy skills are especially important for high school students who may decide on options other than college. If students enter the military, attend a vocational school, or enter the work force, they may not have additional opportunities to expand their knowledge of information literacy skills. In other words, high school student need these skills whether or not they are entering college.

How can Librarians Help?

Libraries are consistent in their desire to provide access to information in a vast array of formats and create comfortable spaces for reading, writing, research, and other literacy pursuits. Librarians are responsive to the pace at which technology is dictating the access points for various sources of information. Providing research support and managing information, both print and digital, for students and faculty is paramount for high school librarians. The access and availability of support is the basis for student competence. In an analysis of a report on Pennsylvania's Public School Libraries entitled *Creating 21st Century Learners*, researchers concluded that "Nearly twice as many high school students who have access to a full-time, certified librarian scored Advanced on the PSSA

(Pennsylvania System of School Assessment) Writing test as those students without access to a full-time, certified librarian” (Diaz & Bayliss, 2012). The same study also indicated that high school students who have access to licensed databases for research are twice as likely to score advanced on the PSSA writing exam, as those do not have access to databases (Diaz & Bayliss, 2012). These data suggest that librarians and database resources improve academic performance for high school students. Considering this data does not suggest that similar resources at elementary grades are not important, nor is it intentionally emphasized. It is the intent of this study to concentrate on the benefits and/or detriments of high school information literacy skills.

Furthermore, the goal of high schools is to facilitate learning that places students on a trajectory for success in college or the workplace. According to President Obama, creating the opportunity for students to graduate from high school with honed skills to direct their learning in college and career is a powerful package. Carr accentuates the significance of this directive by quoting the President’s position on education issues:

He will foster a race to the top in our nation’s schools by promoting world-class academic standards and a curriculum that fosters critical thinking, problem solving, and the innovative use of knowledge to prepare students for college and career (White House 2010).

According to the ACRL Research Planning and Review Committee report, librarians are willing to provide educational services that enable students to achieve their highest potential relative to information literacy. These services

include: access to timely, relevant, and accurate information, assistance with analyzing quality sources, discussing keyword search strategies, disseminating knowledge of types of sources (peer-reviewed, popular, scholarly, etc.) and supporting the effective communication of this information (Connaway, Downing, Du, Goda, Jackson Johnson, Lewis & Salisbury, 2010). Although access to copious amounts of information is relatively easy, the assimilation of this information remains challenging for high school students. If high school students are deficient in their skills their college success is jeopardized. According to Netscape News with CNN “in 2004, one in four college freshmen at 4-year universities did not return” (Schrader & Brown, 2008).

College librarians have established information literacy instruction to accommodate college students, especially first year students. Formal programs developed in collaboration between librarians and faculty members are in place at Vanderbilt University and University of Wyoming. These programs emphasize librarians as educators where best practices are incorporated into the information literacy instruction. (Beutter Manus, 2009; Kvenild & Calkins, 2011). A student participant at the University of Wyoming “identified the embedded librarian as one of his first-semester teachers, even though she was not responsible for assessing his work” (Kvenild & Calkins, 2011). Recognizing librarians as an integral part of the education suggests that students do value information literacy instruction.

Historically, information literacy consisted of access to books and one’s ability to read. Now, the availability of technology allows quick access to books,

literature, databases, and internet sources challenges us with a new definition of information literacy. Information literacy skills have evolved but the educational curriculum is not keeping up. The deficit has caught the attention of researchers and educators. Colleges recognize the need to offer information literacy courses in response to data that suggests incoming students lack the necessary skills to compete in an academic setting (Harris, 2011). Although researchers agree that students need to strengthen information literacy skills, they have different viewpoints on the solution. To address the new skills necessary to compete in college, some researchers consider social networking an integral part of curriculum (Hamilton, 2012; Lippencott, 2005), while others concentrate on assessment tools, instruction methods and learning environments.

Chapter Three

Methodology

Participants

Each person who participated in this study and responded to the interview questions was between the ages of 18 – 22 years old. None of the participants knows one another personally, although two attend the same college. All five participants in this study were selected because each was currently enrolled at a post-secondary educational institutions and all participants work part-time. Each received his/her respective high school diploma by participating in high school classes, which concluded at graduation. None of the participants received a diploma through GED (General Education Development) testing. Participants granted permission for this study to use direct quotes by acknowledging, both orally and in writing (signature) that their real names are confidential in this study. Additionally, due to the small number of participants in this study, each individual received notification regarding anonymity. To insure the utmost confidentiality, the names of the participants were changed in the individual descriptions that follow.

Description of Participants

It is important to note that although they were not specifically asked, none of the students identified a documented learning disability during this study. Four of the participants appeared to be of European descent (Caucasian) and one student identified as mixed race.

Mark

Mark attended a large state university and studied civil engineering. He was active in groups on campus and held the position of vice president of the student-engineering group. His physically activity included biking as his main mode of transportation and eats a vegetarian diet. He plans to study abroad in Spain. He attended a rural high school with 100-200 students per graduating class.

Rory

Rory, a freshman at a small private urban university, is undecided in a major area of study but is interested in psychology and justice. This individual attended two high schools, a small private urban high school for one and one-half years and an urban charter high school for the remainder. Both of these schools graduated small classes of 40 – 60 students. Rory worked part-time as a library assistant and reads often.

Casey

Casey, a freshman transfer student at a small private urban university, has not yet declared a major area of study. Instead she focused on general education requirements. Her college career began at an out-of-state college but she transferred after one year to be closer to her family. She attended a suburban high school with graduating classes between 400-500 students per class.

Lynn

Lynn, a full time student at a community college and worked part-time at an afterschool daycare program. She attended a large suburban high school where she had the opportunity to enroll at a community college during her senior year.

The high school she attended graduates between 700-900 students per class. She intends to pursue a career in veterinary science.

Chris

Chris was a senior in music education at a state university. He attended a high school that graduated approximately 200 students per class. He participated in the marching band in both high school and college and performed professionally on weekends. Some of his musical gigs included weddings, church services, community concerts and accompanying soloists. Additionally he travelled to Italy to perform with fellow musicians and performed at Carnegie Hall in New York. He was president of the music group on his college campus and socially active in many clubs.

Environment

In considering the participants, there is a variety of high school settings, from a small rural high school to large suburban schools as well as private and charter high schools. Additionally, the college settings were vastly different: small private urban setting, large public setting, and community college. Furthermore, the college experience varied for all participants which encompassed transfers from one college to another, study abroad experiences and the study of various disciplines including social sciences, music, engineering and biological sciences.

Procedures

This qualitative research study examined the comments of five college students as a reflection on their high school literacy education. Specifically, how

his/her individual high school information literacy instruction, which includes research and writing experience, prepared them for college. Using qualitative research methods, defined by Glasser and Strauss, as grounded theory was the process of collecting data, before making conclusions based on the research data (Glasser & Strauss, 1967). Collecting data in this manner was appropriate for this study to appreciate the assessments of these students because they have recent experiences in both high school and college. In other words, incorporating the thoughts of educators or students who are not recent high school graduates may not reveal the same data. According to Maxwell, “a study must take account of the theories and perspectives of those studied, rather than relying entirely on established theoretical views or the researcher’s perspective” (Maxwell, 2005). Using genuine qualitative methods was a goal for this study to manage preconceived notions, specifically of the researcher, as they relate to literacy instruction in high schools. Acknowledging pre-existing ideas in a way that does not impose or ignore the influence of the researcher as an integral part of information literacy instruction in a K-12 school is the ultimate goal in this study.

Evidence gathered during individual interviews provides the foundation for this study. Each interview lasted approximately thirty to forty minutes; the interviewer used the audio notebook recording section in Microsoft Word to capture the participants’ comments. During each interview, participants responded to a variety of predetermined questions with the intent that each participant could respond authentically. (Appendix A). Participants responded to additional questions during each interview for clarification of specific ideas.

Participants chose various restaurants for their convenience, assuming a location where background noise was minimal to obtain a quality recording for the interview.

Analysis

After completing the interviews and transcribing them, the next step was considering these data to identify emerging themes and perspectives using inductive methods of analysis (Mills, 2007). Using Glasser and Strauss's framework of grounded theory (Glasser & Strauss, 1967) this study examined the responses in a way that allows the data to evolve so the researcher can extrapolate inferences and draw conclusions from the data collected, rather than using data to confirm existing ideas. In an effort to provide accurate representation for each participant, direct quotes provide assurance that data was not misconstrued or forced into preconceived notions that aligned with the researchers prior experience. Additionally, efforts were made to present unbiased data and retain the integrity of the participants' ideas, eliminating the introduction of bias from the researcher. These efforts included: repeatedly listening to the recorded interviews, transcribing the data collected during the individual interviews, and reading and re-reading the quotes and direct statements of the participants.

Chapter Four

Findings

This Action Research (Mills, 2007) project explored the academic preparation of current college students. The question that this research explores is how current college students felt their high school library instruction prepared them for the academic rigors of college. Specifically this research attempts to answer the question: Are high school students getting information literacy instruction that adequately prepares them for college level writing/research assignments? Simply put, are high schools preparing students for college in the 21st century? Throughout the process of interviewing college students, several patterns emerged that helped this study understand how each individual felt about their information literacy skills upon entering college. The interviews focused on the components of information literacy instruction acquired during high school. Participants responded to questions to determine whether their high school instruction prepared them for college level writing and research. Specific questions revolved around the ability to find sources for research, evaluate sources, write papers, and how each student used his/her respective college library. The participants reflected upon the information literacy instruction delivered through their high school library or media center. This could include instruction in the library space, the computer/media lab or a specific classroom setting. Where the instruction occurred was not significant to this study. It is important to acknowledge the collaborative effort of librarians, classroom educators, and other instructors who provided expertise. Additional questions attempted to define the

intrinsic qualities of the information literacy instruction at the high school level. The responses of the participants, identified by pseudonyms, helped establish a framework for interpreting the skill set necessary for a successful transition to college. In the process of interviewing the student participants, certain prevailing themes emerged from the data. From the data, three main themes appeared, which were identified as: information literacy deficits, knowing how to advocate and ask questions, and connections with others in college.

Since the criteria for participating in this study was current college enrollment, this study recognized each participant's achievement in a post-secondary setting. By acknowledgment of their capabilities in college, this study assumed the participants were all competent high school students. High school struggles, failures, and/or successes were not the nature of the interviews, if participants mentioned specific difficulties or successes in their high school experience, these situations were considered in accordance with other data, not to extol or deprecate anyone. Personal interviews were specific to the college experience with some reflection on high school.

Skill Deficits - Information Literacy

Although deficits were mentioned and specific examples cited, none of the participants placed blame or spoke harshly of any of their current or former educators. Rather, each participant spoke respectfully, gave sage advice, and proffered ideas based on their personal experiences. By doing so all participants revealed their research and writing strategies for success in their early college experiences. Many used the writing lab at college while others sought the help of

professors, teaching assistants, or classmates. None of the participants mentioned the library as their first stop for help.

Deficits in information literacy skills were corroborated by several participants they included: writing style, citation discrepancies, research gaps, source availability, source evaluation, personal accountability, use of technology, information literacy instruction, misunderstanding the role of college librarian, and varying expectations of college professors.

Writing Style

Through AP (advanced placement) classes, English classes and library instruction, most of the participants felt prepared to write and do research in college. When asked about writing papers in college, Mark disclosed:

As for writing papers, I would make a distinction between the technical side of the paper writing [versus expository writing]. I do a lot of lab reports. And then more the research side of paper writing, so for research paper writing where you have to look up different sources and definitely have an annotated bibliography, I felt very prepared and a lot of that comes from the AP (advanced placement) classes that I took [in high school]. All those required essays on the AP exam; and I took all the AP exams. So strong essay structure was necessary to pass the exam. So that was something our [high school] teacher really focused on was [sic] writing.

In this case, there was plenty of exposure to formal writing elements in the advanced placement English courses for Mark to feel adequately prepared for writing expectations in college. Conversely, this did not appear to be true for the foundations of technical writing.

For others, lessons in citation and writing style, especially APA (American Psychological Association), were missing and not mentioned by participants as component of any library or classroom instruction. According to Chris,

We didn't use anything except MLA (Modern Language Association) in high school. Our librarians and teachers taught us MLA style. I didn't even know there were other writing styles and all [of] my [college] papers now are in APA (American Psychological Association). My professors all require APA. It would have been nice to do at least one [high school] paper in APA.

Similarly, Mark found the instruction in writing styles inadequate for his studies in science. By his own admission Mark did not have knowledge of technical writing style. In "technical writing I was really lacking, [it was something that I had not been exposed to in high school]" (Mark). Mark further explained that the discipline of Chemistry uses ACS (American Chemical Society) writing style, which he describes as "essentially the Modern Language Association format for Chemistry" (Mark, 2013). He suggests:

As for technical writing I would say I was really lagging behind so I didn't know. I was given a lab structure for a lab report for a physics lab [in

college]. It was just something that I had not been exposed to before and I hadn't done a lot of technical writing in high school. There were opportunities I just didn't take the classes so I didn't feel really prepared for technical writing aspect [sic].

As for finding sources, for knowing how to structure an essay, knowing how to form a thesis and form topic sentences, I felt very prepared.

Likewise, Casey "never learned the rules of citation" (Casey, 2013). In her high school experience the librarian or teacher "gave you [the students] the citation" for their research projects. Therefore, she never learned how to format the information required to do her own citations.

Encountering these new writing formats and learning to do citations in college was an obstacle that both Mark and Chris were able to overcome. Mark sought the help of students in his academic clubs. He stated, "I got to know former students from my club and asked how they wrote their technical reports" (Mark, 2013). Casey, by her own admission "still doesn't understand the proper way to do them [citations]" (Casey, 2013). And Chris "didn't do it [citing an on-line journal] in high school" (Chris, 2013). Simply giving the citation to students may help them meet their deadline or avoid accidental plagiarism, but offering the answer does not allow the student to acquire the knowledge for the particular skill or task. Citations are specific, detailed and vary for each source. It is imperative that students spend time practicing citing sources to avoid accidental plagiarism.

Technology

The participants in this study are all part of the digital generation. That is to say, they have used computers during their elementary, middle and high school years. Suffice it to say, they are well-informed computer users, have a strong grasp on technology and are willing to experiment to get what they need via technology. In other words, they are not afraid to try new software and are quite comfortable using social networking applications, tweeting, texting and posting pictures through popular applications. Even with their experience in technology, two participants mentioned obstacles that they had to overcome in college. According to Mark, the on-line classroom software frequently used in colleges and some larger high schools, called Moodle, was not available in his high school. In his own words, Mark described his high school on-line learning experience:

We never used anything on-line like that [Moodle] in high school. I had to learn how to use Moodle, to learn. Teachers [would] post documents and other students would ask questions. This was completely new to me.

It would have been helpful to at least know how to respond.

Presenting oneself in an on-line format was a new experience for Chris also. He mentioned:

We had email, but not at [high] school so we didn't do any on-line chats or discussions. Now I have a lot of on-line postings but we never learned [in high school] how to develop our arguments. So not understanding how to write or present two sides of an argument in an on-line format is hard.

All of the participants mentioned on-line formats, conversations, and a technical understanding of resources required for many courses even those considered

traditional professor led face-to-face classes students attend in person, had an on-line component.

The expectation was that students would engage in on-line discussions, prove their argument and analyze information presented by professors, teaching assistants and classmates. However, none of the participants mentioned having any exposure to Moodle, Blackboard, or other on-line classroom tools to practice with in their high school instruction. Those who did use on-line classroom management software in college did not mention any prior instruction.

High School Librarian

Remarkably, the high school library instruction was similar for four out of five participants. Librarians provided print resources for research projects and database instruction. Marks experience suggested:

The library would provide Ebsco Host subscriptions and they [the librarians] would kind of teach you how to use it. They would also help with a topic. The librarian would also provide sources [books] especially for literature, if you want to write on, I had a project called Hubris and Frankenstein, they [the librarians] would say, "Here, you should look at this book". They directed me to specific novels that I might not know of. As for researching skills, definitely they taught me how to use Ebsco. I'm sure if I wouldn't have [sic] been able to find a source they would have found something through interlibrary loan and such. If you couldn't find it on line, they would call another library. They always provided an option for other sources.

None of the participants mentioned a librarian who was unwilling to help. In fact, Mark's astute assessment indicates his high school librarians were helpful, available and knowledgeable. When he visited the library and asked for help, he reports: "They [the librarians] were great, and were always available and willing to help. They definitely taught me how to use the databases or would have found something through interlibrary loan" (Mark, 2013).

Information Literacy Instruction

When discussing their high school experiences, participants noted they rarely, and in one case never, used the library for reading or reflection. They even discussed a situation where the librarians asked students to leave. Casey notes that she "rarely went to my library unless I needed to use the computer for writing a paper" (Casey, 2013). Mark mentioned, "Some kids getting kicked out of the library, because they were acting up" when they attempted to use the library space for studying. Rory "never used the library, because we did not have one" (Rory, 2013). Only Lynn mentioned using the library independently to seek out information, books or to study. According to Lynn:

It [the library] was open before and after school, so I would go and read or like [sic] look at books and sometimes, mostly after school, [sic] to study and sometimes ask the librarian for help. It just depended on the class. Sometimes though we would go with our teacher and have class in the library.

Using their high school library resources varies for each of the participants, but the common denominator indicated the library was only used when students were required by their teachers to seek information or attend library instruction sessions.

When directed by teachers the four participants, who had a library within their school, went to the library for instruction. If classroom teachers brought students to the library, the information literacy instruction was collaborative between the classroom teacher and the librarian. According to Chris, “the teacher would introduce the project and then the librarian would show us the subscription databases” (Chris, 2013). This is one example of collaboration.

At least two participants mentioned the librarians providing too much information. Casey revealed that the high school librarian would provide resources.

They would select the books and have them on a cart before we came to the library. They had [print] resources for research projects and give them to us. So we didn’t really have to find our own outside sources. I’m still kind of unsure whenever I write a paper, you know, because I really don’t know how to find outside sources.

As a high school student, Casey felt that she did not receive effective information literacy instruction. She noted that she still does not know how to search for her own resources and by her own admission feels limited when charged with finding sources for her college writing assignments. Because of this instructional limitation, Casey “still has difficulty to know [sic] where and what to use as an

outside source". She revealed that she now uses "the internet and Google" instead of the library to conduct research, because she "is just more comfortable with the internet" when conducting inquiries for research (Casey, 2013). Similarly, Chris disclosed erroneous database instruction that was pre-arranged. He mentioned:

When they [the librarians] did the demonstration of the databases, it was a prepared search with results so it looked like it was going to be easy, but it wasn't. When we would do our own searches, it never worked the same and we couldn't find good articles. It would have been nice for them to, well, rather than an impromptu search [the database searching] they should teach us how to narrow or broaden a search on something we were researching because we didn't learn good searches.

Frustration occurred when librarians or teachers simulated database searching that would yield results but when students practiced searching, the results were inaccurate or incomplete. Because students were not adequately taught how to adjust search terms and keywords and did not understand how to narrow or broaden their search parameters, their research skills are somewhat deficient. Similarly, Chris noted that when he practiced these research skills his results were lacking and he was not aware of the steps necessary to realign the search parameters to find articles that were suitable to their topic.

Library Resources

Contrary to the others, one participant did not have a library in the school building. A library, defined as a central warehouse of books, on-line database subscriptions, and a librarian, was not available. Rather this school had current

print resources (books) available in each classroom and faculty advisors (teachers) who encouraged students to utilize the public library. Although Rory was encouraged to use the public library, the high school faculty did not provide direct instruction for using the public library, nor did the general education students have sanctioned trips to the public library. However, special education students “had field trips” to the public library (Rory, 2013). Although the nature of the special education trips is unknown, the exposure to the public library promotes the opportunity for lifelong access to physical and virtual spaces. General education students, including Rory, could explore the resources available from the public library independently and learn how to use the resources from the librarians. Whether or not this occurred for all students is unknown, but for Rory the public library was a helpful resource for obtaining information. The struggles she overcame she mentioned as:

Not being prepared to write [college level] papers. But I did know how to collect information that would support [high school] projects. Well, because we had to find our own sources, usually they were people who were already studying the topic. I wasn't sure how to actually write because our research was project based. We basically created our own research project, then, we presented it.

By using the public library, Rory supplemented her high school instruction by seeking help from the public librarian as well as experts within the community. Although this school community did not have a library on campus, students paired with mentors for projects. When Rory inquired into a project, someone

knowledgeable in the field would direct her research. “My mentor wrote a book [on her topic] and was really helpful, but then he moved to India” (Rory, 2013).

In Rory’s experience, high school library instruction was unavailable and resources were harder to obtain and maintain.

Advocating on your own behalf in College

One leitmotif that resonated through all participants was “learning to ask questions” (Rory). Mark also shared that he “had to learn how to ask good questions in class in order to get good answers” (Mark). Similarly Chris recommended, “asking for help” and urged high school students not to “be afraid” to reach out and ask questions during their college classes (Chris, 2013).

Interestingly enough, these young people felt confident in their writing and research abilities as they enter college, but their collective recommendations to younger students indicated a sense of discomfort in asking questions.

Personal Accountability

It is noted that only one participant mentioned a specific high school educator that “didn’t care if you came to class or not” (Chris, 2013). Chris indicated that this seemingly lackadaisical teacher instilled the notion that academic engagement was indeed a student responsibility. Shifting the responsibility of the learning experience from the teacher disseminating information and working diligently to force the lessons onto the student is not an easy task. In high school, teachers are more willing to remind students of deadlines and ask for missing or late work. Whereas in college, managing and organizing the workload is the sole responsibility of the student. Casey noted:

In high school if I missed something, the teacher would usually come up to you and tell you what you missed or remind us to turn our work in.

Sometimes they did that, but not always. In college, not at all: We have to remember all the due dates and test schedule and do it by our self. It's ok though.

Although they felt well prepared, each participant faced challenges in college. Furthermore, each participant had differing perspectives on how prepared they were for their various disciplines of study. Both the music major and the engineering major provided unique experiences relating to their field of study. As an Engineering and Science major, one of the hurdles in college was writing scientific lab reports. According to Mark, writing scientific lab reports in the “correct format” was something that he did not practice in high school. Even though Mark enrolled in advanced placement (AP) English and writing classes in high school and learned database searching and research skills in the library, the curriculum did not include technical writing and lab reports. To adequately prepare high school students for college or post-secondary careers, they need exposure to all subjects and the nuances of the writing styles that accompany the various disciplines.

College students must also possess the foundational skills for educational independence: confidence, humility, and reflection. Although Mark was an accomplished writer in high school, he “worked really hard” (Mark, 2013) to learn the technical writing requirements in his college setting and had to

overcome his “fear of public speaking” in order to get the information necessary to gain a thorough understanding of the course content.

Asking Questions

According to Casey and Chris, asking for clarification in high school was not always necessary. Casey stated that if you missed lecture or discussion in high school the “teacher would come up to you and tell you what you missed” (Casey, 2013). Similarly, Chris noted,

In high school you can get away with not asking [for help] because the teacher will ask you [if you understand the concept] but in college, they don’t and it moves faster. The professors don’t give [homework or assignment] reminders because they think we are adults and we have to figure it out.

These assumptions raise the academic bar from high school to college.

Nevertheless, when students are uncertain and reticent to ask for help, their best efforts are misdirected. As Chris pointed out, his professors “each want something different” in terms of formatting and style (Chris, 2013). Because of these unique requirements, Chris did not seek the librarian’s help for research. He “wanted the professor to comment” on his work, “not the librarian” (Chris, 2013).

College - the Right Place

By their own admission, all participants felt they were well prepared for college. Despite this sense of confidence and having the groundwork necessary for college success, all participants mentioned feeling “overwhelmed” by the increased workload expected at the college level (Rory, Casey, Chris, Mark, Lynn,

2013). However, feeling prepared and being prepared for college is different. Being prepared for college writing and research requires a skill set that varies. Each participant responded differently to the question: Where is the first place [you go] to obtain relevant information for a writing assignment. According to Rory, "I go to the writing center first but it is actually in the library" to find information for writing papers in college. Similarly, Mark uses "smart-commons, tutoring - the tutors are great and offer so much more, oh and databases too" (Mark, 2013). Whereas feeling prepared indicates that a student has confidence in their own ability upon entering college. Chris disclosed:

I still find thesis statements hard to write. They are either too broad to research or too narrow to write about. I never went [to the library] to ask for help; I just went on-line to J-Stor or New Groves, they both have good articles, oh yeah Ebsco host too. Well, I did go to the library but only to print and maybe read or something.

Similarly, Casey "rarely" visits the library unless it is "for group work". By her own admission, she "does not know" of any library information sessions that may be offered. In contrast, Lynn uses the library "a lot to study" and finds the librarians at her college "very helpful". Yet she continues to "use the internet" for finding sources for writing and is "overwhelmed by the number of choices and options when choosing a writing topic" (Lynn, 2013). When students have confidence but are unprepared, they may not realize their inherent deficits. According to Jones (2002), in the pew report on college students, "researchers found that though academic resources are offered on-line, most students either do

not know how to find them or have not been shown how to” and “college students seem to rely on information seeking habits formed prior to arriving at college” (Harris, 13). These findings present a challenge to high school librarians.

Belonging or connecting with others in college

Participants discussed belonging and not belonging in high school but most of the emphasis aimed toward establishing connections in college. Being part of a group or club, whether social or academic, was the overarching component that contributed to the successful transitions from high school to the respective college campus. Considering each testimony individually and collectively, the data indicates the sense of belonging and independence were dominant themes common to all participants. Whereas independence and the ability to advocate for oneself, came forth as the component to attaining continued success throughout their college careers.

When Rory spoke of her experience in college, she indicated feeling “over prepared” for the independence a college setting presents (Rory, 2013). Yet she mentioned not having a sense of belonging in one of the high schools she attended. The particular school is a private urban high school with a small student population. Rory disclosed:

I joined ink-slingers, gay student alliance (GSA), Amnesty International, “E” (environmental) club, and quiz-bowl [in high school] but I didn’t really adapt socially. The lifers [those who attended this K-12 school from early elementary years until high school] didn’t really include those of us who weren’t.

In Rory's experience, she did not feel as though she was truly part of the high school community despite the fact she made overt attempts to participate in extracurricular clubs and events.

Each participant gave specific examples of his/her desire to create a sense of community for themselves in their respective college settings. Chris advised:

Take classes with friends or make friends in each class so you have someone to talk with, bounce ideas off, work on homework and writing. Otherwise, if you miss [a class] you are going to get behind and miss the announcements or deadlines or whatever. Some of it is on-line, but it is better if you know some other kids in your classes.

Rory mentioned, "getting to know people in my orientation class, so I already knew people prior to starting the semester" (Rory, 2013). Mark suggested, "join clubs to get to know people in your area of study" (Mark, 2013). Forming a small group within the larger community offered these students a sense of community and enabled them to engage with one another for study groups, mentoring, leisure activities, and insured support for managing missed coursework.

Is a Library Necessary?

Surprisingly the data indicated that in both high school and college settings, libraries are not the first place to go for writing or research assistance. In fact, Chris stated that he "never went to the library to ask for help, only to print or read" (Chris, 2013). Furthermore, none of the contributors in the study mentioned a specific educator or librarian that mentored them or inspired them to succeed.

Rather they acknowledged the service librarians provided by delivering relevant instruction that supports the classroom curriculum. The presence of a librarian did not surface as an asset by any of the participants. Perhaps this is due to a perceived (or real) feeling of being managed or controlled in the library. Mary K. Chelton (1999) found “the substance of most student-library staff interactions is enforcement related” (Harris, 4). This is a challenge for high school librarians who must maintain a safe, respectful environment when the majority of the teenage library patrons arrive in noisy hordes and use their study time to socialize. Establishing a balance that allows movement and collaboration for some and quiet reflection for others can be a challenge depending upon how the library space is structured. Although most participants overlooked the importance of their high school librarian, the participant who used the public library did not mention it as a problem or obstacle to overcome. Nevertheless, this participant did suggest “it would have been nice to have a library in my school” (Rory, 2013). Using the library is something that Rory continues to enjoy, in fact she “is working in a library and I love it” (Rory, 2013).

Chapter Five

Discussion

Overview of the Study

The general purpose of this study was to determine if students were prepared for the academic rigors of college. Specifically, did their high school library instruction prepare them with the information literacy skills required for college writing and research projects? Five college students were interviewed to gather data. During the interviews, undergraduate participants commented on whether they had the skills necessary to write and conduct research at a collegiate level. They also mentioned particular areas where they felt they could be better prepared to meet the expectations of their college professors. Specifically, they discussed obstacles they overcame in their first year of college and made suggestions for high school students based on their personal experiences. The suggestions are for the benefit of current high school students as they prepare for college. Using data from individual suggestions, comments, and responses, in conjunction with my own experience as a high school librarian, brought a richer meaning to this study, which brings my professional experiences full circle.

Summary of Findings

Overwhelmingly, each participant felt prepared for college, which confirms high school students are confident in their transition to college and that high schools are doing their job to prepare students for post high school educational experiences. The data suggests:

1. Indifference to library instruction by both students and educators in high school and college became apparent. This is not to say that the library instruction was weak, but not significant enough to gain mention by any of the contributors. This study acknowledges the information literacy deficits realized by participants as indicators of the information literacy divide that is reflected in the literature. In Harris' assessment, when students are unskilled in research techniques they do not fully engage with the content. The overarching deficiencies are technology and high school information literacy instruction.

2. Establishing connections is paramount to the sense of belonging, which contributed to the success in college. These data indicate connections established in college are strong indicators of one's success whether or not the individual felt part of his/her high school community.

3. Advocating on one's own behalf, by reaching out for support, asking thoughtful questions, establishing good study habits, and obtaining public speaking skills are factors that participants acknowledged would increase skill and competency in college.

Conclusions

Further analysis of the data concludes that student participants viewed the availability of the library or access to a librarian in a neutral manner.

Additionally they noted several areas they found deficient upon entering college:

Technology

The data suggested that undergraduates should know how to use on-line formats for their college courses even if the course was a traditional classroom

format where the professor leads the lecture and students attend discussion and lecture in person. Many colleges use on-line formats, whether completely on-line, face-to-face or a hybrid, students need to learn the skill set required to fully participate in these classes. This is a distinct difference between high schools and post-secondary institutions. Even students steeped in technology for the majority of their educational career with a comfortable understanding of software and hardware do not have the ability to transfer their writing techniques to a new forum. Simply put, undergraduates may have the technical writing ability and the technical exposure, but they do not understand the formality of an on-line discussion format. According to the data, this realization does not occur until the individual encounters Moodle or other on-line learning platform. Understanding the nuances of on-line communication is critical when stating one's opinion, thoughts, or argument. If college students lack confidence or are tentative when communicating their ideas due to a technical deficit, offering instruction that illuminates the subtleties of the software could remediate the situation. It simply is not enough to be a good communicator. Today's student must be technically proficient and able to navigate the specifics required by each professor and the institution.

High School Library

Although collaboration with classroom teachers, providing resources for coursework, and working with students is exactly the type of service that librarians provide, the results of these services are varied. The data suggests some instruction methods may actually hinder students. In Casey's experience, the

librarian gave students all the resources for a project. By providing all the sources for a student, the well-intentioned librarian actually diminished the learning opportunity for the research project. In this case, searching for sources is absent from the curriculum, and a critical component of research is missing. Teaching research skills takes time. These examples indicated the lack of time allowed in the library for research instruction and most importantly student practice. Perhaps the librarian selected books specific to the research project or writing assignment simply to save time for the classroom teacher, the students, or both. It is certainly easier for everyone to have the librarian choose resources for students. If a librarian chooses books, websites, and databases for students, the sources are reliable and scholarly. This security most likely allowed the students to focus on the content and the writing process. However, eliminating a critical step in the research process represents an injustice to the students because they do not develop the skill set necessary to tackle the next research project, nor do they develop the problem solving skills necessary for college level work. This approach hinders student learning because it does not teach the independent research skills necessary for high school and college careers. Students must learn and practice searching for resources, be flexible in their ability to identify search terms and keywords, and use various search techniques to locate journal articles from an on-line database.

When librarians and teachers predetermine the outcomes for research by selecting the resources they inadvertently stifle independence. When this happens, students may produce excellent essays or research papers, but their research skills

are restricted. Furthermore, expecting students to navigate copious amounts of information available via Internet, subscription databases, reference volumes, and books, without consistent and effective instruction is unreasonable. If students do not have the opportunity to learn and practice these skills, the burden of teaching them shifts to colleges.

When budget cuts eliminate libraries from high schools, students may utilize public resources, which promotes independence. However, expecting students to reach into the community resources without support and instruction deprives them of education at the high school level. When high school educators inadvertently shift the responsibility of teaching research skills to college educators, the expectations of college professors becomes disparate. Some colleges do supplement research instruction. According to Rory, “the first year seminar was great” for learning how to use the available resources on the college campus (Rory, 2013). The assessment of the course was positive and influenced her future use of the college library resources. In other words, if the instruction is not available at the high school level, colleges are offering options for student support.

When high school educators coddle students, the conditions for learning and gaining educational independence are stifled. This does not imply that elementary or middle school educators should withhold information from students after an absence. However, they can learn to approach their teachers or classmates after an absence to obtain assignments. However, high school students

especially juniors or seniors, if taught these skills earlier, should be expected to follow up with educators in the event of a missed lesson or discussion.

Advocating on your own behalf in College

Asking questions in a public forum like a classroom takes a level of confidence that these participants were able to muster but recognized it as a skill deficit. If the participants of this study equate asking good questions with succeeding in college, then how can high school educators and librarians hone the skill set that prepares students for asking questions?

Responding to questions and helping students obtain resources is a major role in working as a librarian. The library is a place, outside of the classroom, where students can learn the art of asking questions and thinking creatively and critically. Some of the data in this study suggest that librarians are catering to students in a way that discourages them from forming and asking critical questions. In other words, high school librarians are so willing to help students find resources they may be restricting the opportunity for students to formulate and ask their own questions. Arguably, some students are lacking skill due to a plethora of reasons: language barriers, ineffective high school research skills, delayed learning, late onset of social maturation, not engaging in the subject matter or others. In these instances, college educators must provide higher levels of instruction. These discrepancies indicate a larger problem. Research can embed into curriculum at all levels, not just high school. Almost every educator will agree that inquiry and curiosity is critical for student engagement. The desire to find the answer to a question or to gather more information about a certain

topic of interest is the force that drives learning. When students are curious, they will naturally ask questions to satisfy their interest. Young children are innately curious and they exhibit tendencies that exude the joy of learning. Providing early research skills in elementary and middle school curriculum creates a trajectory that allows students to build their skill set and allow time to engage with the content so they can demonstrate their acquired knowledge.

Researchers dedicate a significant portion of their careers to asking questions and discovering new information. When college students are committed to a particular field of study they too are eager to learn everything within their discipline. Keeping students engaged is the collective responsibility of all educators, including the librarians.

Reaching out to professors, classmates or teaching assistants to obtain information is a skill that college students need. These skills require confidence, independence, and humility. In other words, these skills combined create a trifecta encompassing educational independence: learning to ask thoughtful questions, a willingness to be wrong, and having the confidence to admit the limits of one's knowledge publicly. Do high school educators teach students to develop thoughtful questions or allow them time to resonate with the material? The data in the study suggest that students need more time to engage with the material.

Personal Accountability

In the situation where the teacher allowed students to appear in class at-will, the data suggests that he/she was actually transferring the responsibility of

the knowledge from the educator to the individual student. If a student did not appear in class, it was up to him/her to obtain the information he/she missed. This is similar to a college class; if a student were absent from lecture, it would be the students' responsibility to obtain the lecture materials from a classmate. Arguably, this method of developing academic independence may not work with every group of students and could easily backfire. But with a group of second semester seniors who are college bound, it is one way to instill personal accountability and greater independence.

Although this teaching strategy may seem shocking or truant, this educator successfully shifted the responsibility of the knowledge delivered in the classroom from the educator to the student. Whether or not the casual attendance policy was a deliberate attempt to facilitate responsible student behavior that is exactly what occurred in this case. The high school student developed a sense of accountability and independence before he/she entered college. Essentially, each student knew how to operate independently and reach out to obtain the necessary information, which is another way to advocate for one's self. Considering the data produced in this study, accountability and independence are two factors that facilitate college success.

Belonging or connecting with others in college

Being prepared and having confidence corresponds to success in college. Both are important factors in college success, but if one does not feel connected, the confidence erodes. Feeling connected is synonymous with a sense of belonging. Opportunities for establishing friendships and making connections in

college are up to the discretion of the individual. In other words, effectively reaching out to others either for personal or academic relationships requires effort. Depending upon one's personality, becoming acquainted with new people may be easier for some students and more difficult for others. This ability to form connections is directly related to obtaining missed lecture or class information, establishing study groups, identifying techniques for writing strategies as well as social maturation, whereas the distinction for belonging in high school, comes from the approval of ones cohorts or peer group. In other words, college students have the opportunity to define their groups.

Recommendations

Perhaps engaging high school students by tapping into their natural curiosity is something that could occur within the library instruction. If educators impose writing tasks or topics without student input, the natural curiosity for learning dampens and student engagement is lacking. Indeed, getting students into the library in the first stages of their inquiry is the goal of educators, but the data from this study suggests that students go to their computers first. In doing so they become completely overwhelmed by the amount of data that appears. Sorting through the response to a simple request in a popular search engine can take hours. Furthermore, the validity of the sources is in question and requires evaluating to determine legitimacy. Convincing students of the time saving by coming to the library or asking a question via an on-line chat with a librarian is difficult. They are so comfortable with technology they rely upon their computers even when it is futile.

Considering the rarity in which participants used the library if available, presents several possibilities for deliberation:

- Participants do not have the foundational knowledge to evaluate a source because they have only viewed the original form on-line; therefore, they cannot differentiate a peer reviewed journal article from a popular web source.
- The importance of the library resources was not obvious to high school students because they do not fully understand the academic rigor expected at the college level.
- Research conducted via “Google” or other search engines and passed as acceptable to high school educators.
- Educators did not recommend the library as a resource when assigning writing or research projects or collaborate with librarians or media staff to incorporate information literacy into curriculum and therefore did not reinforce the value of libraries and the resources within.

Any one of these afore mentioned reasons substantiate further questions.

If the importance of libraries is not evident, by default, there is a devaluation of information literacy instruction. Looking further at this issue will help to understand how students and educators view libraries and the respective resources offered.

Limitations of Study

My personal biases derive from my library position at a K-12 school where my responsibility for middle school and high school research instruction

includes: web site analysis, utilization of subscription databases, evaluation of sources, writing style and bibliography methods. My research focuses on successful application of information literacy instruction that occurs within the space of the library, either individually or in conjunction with specific classroom curriculum goals. My personal bias could inadvertently lead to highlighting data that supports the success of students in college writing and research. It is my sole intent to derive the most accurate beliefs of the participants, to better inform the information literacy curriculum of the library and specifically my teaching methods. This could also extend to other classrooms, curriculum development with other educators, and co-teaching.

Future Research: How Do High School Libraries Evolve to More Fully Engage with Technology?

Libraries are repositories of valuable information, but underutilized, they become storehouses of materials that occupy expensive real estate. With many public conversations regarding school budgets and cost reductions, libraries become a luxury or unnecessary. In fact, Benilde St. Margaret, a high school in St. Louis Park, Minnesota touts the fact that they eliminated all books from the library in favor of a “learning commons” (Louwagie, 2012).

Pioneering ideas with the intent of improving the quality of education is admirable. Benilde is the first school in Minnesota to adopt the digital library concept where electronic books and on-line resources are available in place of print materials. Instead of maintaining hard copy books, they subscribe to e-books that one downloads and reads on a laptop or other device. Removing the

books from the library was partly to save money but also to embrace the need for a space that maximizes the investment in technology. Students use the learning commons as a library to study, read, and conduct research. The difference is visible because books are absent and students read or research by using computers. When students at Benilde St. Margaret need books for research or reading for pleasure, they utilize their local public library. From the perspective of a high school student, this vision of a library meets her expectations. Louwagie quotes a student from Benilde on her use of the new learning commons. "I never really used the actual library before, it's embarrassing. I'm a senior in high school and never used a book" (Louwagie, 2013). This young woman experiences both a traditional library and learning commons and by her own admission, prefers the learning commons model. The voice of a college student is very different. Rory's high school did not have a library or a learning commons and in her words, "having a library in my high school would have been helpful" (Rory, 2013). The goal for any high school is to prepare students for college, careers, vocational settings, or military service. Will the learning commons model coupled with the resources of the public library effectively prepare students for life after high school?

Federal CCR standards adopted in Minnesota will assess the preparation of these students and can affirm or invalidate these new learning environments. Being creative and redefining learning spaces is innovative and facilitates student involvement. The bigger issue is not the newly remodeled space or the introduction of new technology, but how one utilizes the library resources. The

data in this study signal a disconnection between librarians and the educational community. This is in complete contrast to the success of embedded information literacy programs at both Vanderbilt and the University of Wyoming. Whether or not educators are emphasizing the importance of using the library or students fail to understand the significance of the library remains unknown. Either way, educators may wish to support all methods of instruction and a variety of tools to accomplish their teaching goals, including books. Likewise, librarians can continue to provide service to students and educators alike. For Benilde relying on the public library is one option. Louwagie does not mention if instruction at the public library is part of the new philosophy at Benilde nor does she discuss the instructional techniques used in the learning commons. Therefore, it is unfair to assess the learning commons model without further investigation. According to Professor Boyd Koehler, reference librarian at Augsburg College, the learning commons model is louder and less conducive to effective study habits.

Understanding the educational richness that libraries and librarians provide is something that our founding fathers recognized. Now, communities and college campuses across the country mirror their insight and acumen. Keeping the spirit of the virtuosic leaders before us, it is imperative that the collaboration between educators and librarians is seamless. Furthermore, these cooperative efforts must be visible and fully integrated into the educational experience for students who are the focus of 21st century educators.

Chapter Six

Reflection

My fondest memories in middle school and high school involve wandering through the stacks in the library and pouring over the titles. I had a personal goal to read as many books from that library as possible. Sometimes I read during class and did not listen to the lesson. Although I did not intend to frustrate my teachers, I read the novels under my desk at their expense. In contrast, I considered the middle school librarian a good friend. Through her book recommendations, she offered me a chance to hide in the walls with German children during the war and experience the hardship of pioneer life as settlers made their way across America. She also spoke with me about her travels and even connected me with a pen pal in Wales. My pen pal's name is Haley and her Welsh vernacular brought me into her daily life. Even though my hair was short, I longed to wear *plaits* in my hair because Haley and her sister both wore braids. As I fondly remember my fiction friends and my real pen pal, I truly believe this librarian is responsible for my continued yearning to understand life from another's perspective.

Writing letters to someone in another country seems out of date with today's technology. After all, we can send our thoughts instantly to the most remote parts of the world with a single keystroke. In my case, it is not the technology or the speed of communication that connected me to others. My inspiration came from one librarian who encouraged me to consider the

experience of others. I did this through reading. Although I did not know this at the time, my former librarian introduced me to my first experience with research.

Since then, the evolution of research and technology expedites the access to information. Researchers no longer sit before microfiche readers until they have blurred vision and a headache or both. Instead, they interrogate a database and by using the right keywords, receive a plethora of relevant articles. They can access all of this information from any location providing a wireless Internet connection. If one elects to use Google or other search engine as their point of reference, information overload can inundate them. Some of the information available via the Internet is legitimate and scholarly, but a good share is spurious. According to experts in the field, Google Scholar is a valid search engine for locating research articles (Koehler). Although it is not my intention to discuss the merits of Google or other search engines, I do appreciate the knowledge of experts in the field of library science.

The data in this study allows me the opportunity to reorganize my current instructional practices with the hope of engaging students in ways that will enhance their information literacy skill set. Some of the ideas I plan to introduce are collaboration with my colleagues, focused research instruction that includes time for practice, and methodical database searching practice that is pertinent to a specific project and not rehearsed. Spending more time evaluating and citing sources may allow students to feel more comfortable when they query the Internet. Additionally, I plan to promote a learning commons model in part of the library for student collaboration and be available to assist students using an on-line

discussion format. I may even make myself available via text messaging.

Reaching into the world of my students to facilitate learning and engagement is exactly what I hope to accomplish. Influenced by my middle school teacher, I hope to bring project-based research to life so it provides a meaningful experience for students. More than making the library learning experience positive, I want to allow crucial browsing time in the library, which may engage students in a way that I may never know about, but they follow with a passion.

If I can enthusiastically share the idea that visiting and utilizing the library is something all educators can use to promote their lessons and engage their students, I will consider myself successful. Inviting my colleagues to utilize the library as a resource for their own curriculum and lesson planning is my first goal. I expect resistance but I will persist. When teachers adopt the notion that the library is a rich resource that can help them and their students, genuine engagement and learning begins to unfold. For me, this is the ultimate indication of achievement.

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Appendix A

Interview Questions for study:

Describe your first impression of college and specifically how prepared you felt?

What areas did you feel well prepared? What disciplines or areas were difficult?

Why?

Do you feel that your research skills were satisfactory? How could they be improved prior to college?

Tell me how your high school provided the opportunity to learn research skills?

What could they have done differently to help you?

How did your high school library support your high school education?

How accessible was your high school library? How did you use your high school library? What activities would have enhanced your library experience in high school?

Upon entering college, were you prepared to write a research paper? Explain your struggles or success with writing this paper.

Were you able to obtain information that adequately supported your research?

Where do you find your sources?

Are you comfortable defining a research question?

Where do you go first to find information for writing papers?

Do you visit the library at your college? How do you use the library at college?

Have you attended any library information sessions offered at your college?

What can your college librarian do to help you?

Does your college offer a writing lab? Have you ever used the writing lab?

How often? Did it help? Why or Why not?

Which high school classes helped you with research skills? Enhancing your writing skills? What else would have helped you with your transition to college?

If you could give any advice to upcoming Juniors/Seniors at your high school, what would you tell them?

What else would you like to share with this study?