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ABSTRACT

One of the requirements for students majoring in Bible in the undergraduate school of Philadelphia College of Bible (Pennsylvania) is writing research papers. The papers are designed to promote information literacy by developing research skills, sharpening writing skills, encouraging critical thinking, and promoting problem-solving skills. However, students are not adequately prepared to write their research papers--the first year English Composition course spends only limited time on research strategies and the utilization of specific tools in the library, and students lack critical thinking skills. This study details the creation of a curriculum-wide information literacy program. A literature review enabled the development of a library committee questionnaire, academic affairs committee proposal, revised student writing guide, information literacy program booklet, and faculty workshop presentation. The study investigated: (1) how other institutions of higher education are meeting students' information literacy needs; (2) how faculty members should be prepared to participate in the program; (3) how students will complete research papers while participating in the program; and (4) how the information literacy program should be implemented and evaluated. Appendices include the questionnaire, responses, proposal to the academic affairs committee, revised student writing guide, information literacy program booklet, faculty workshop outline, and information literacy evaluation packet. (Contains 100 references.) (SWC)

DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF AN INFORMATION LITERACY PROGRAM FOR THE UNDERGRADUATE SCHOOL AT PHILADELPHIA COLLEGE OF BIBLE

Lyn Stephen Brown

A major applied research project presented to Programs for Higher Education in partial fulfillment of the requirements for the degree of Doctor of Education

Nova Southeastern University

May, 1996

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One of the many requirements for students majoring in Bible in the undergraduate school at Philadelphia College of Bible is the writing of research papers. These papers or reports are designed to develop research skills, sharpen writing skills, encourage critical thinking, and promote problem-solving skills. These skills are the classic components of what is defined as information literacy. The skills needed for each of the papers assigned by individual professors should ideally be taught and reinforced throughout the curriculum.

The problem is that the students are not adequately prepared to write their research papers. First, the freshman English Composition course attempts to generally encourage research skills with limited time spent on research strategies and the utilization of specific tools

within a library. The director of the library is given one class hour to present a short session on research strategies along with a brief library tour.

Second, students seem to lack critical thinking skills and see the information that they memorize as useful only for examinations and short reports. They are unable to find information in the library under related subject headings and are often satisfied with books and other materials that are not scholarly.

The purpose of this project was to create an information literacy program for the undergraduate school at the college. The research undertaken supported the development of written materials, such as guides or guidelines for faculty and students.

Recommendations resulting from the project are to be used to instruct the faculty regarding the components and requirements of the information literacy program. Assessment tools and competencies for all course work in the undergraduate school are included. A strategic plan is recommended along with a faculty development plan and a time line.

This project utilizes the development problem-solving process. This includes the description of the problem, the collection of data through research and observation, the development and implementation of a product to correct the problem, and the specifications for evaluation of the product.

Five procedures were used to complete this development project. First, a review of the literature was conducted. Second, the academic dean and the faculty library advisory committee were given an opportunity, by a formal inquiry, to give suggestions and comments regarding the design, implementation, and evaluation of the information literacy program. Third, the proposed information literacy program was reviewed by the academic dean and the academic affairs committee for recommendations and approval. Fourth, an overview of the

information literacy program was presented to the students, faculty, and administration. Fifth, an evaluation process was designed to insure that the information literacy program would be analyzed and improved on an annual basis.

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Chapter 1

INTRODUCTION

Philadelphia College of Bible is a private nondenominational college offering traditional and non-traditional programs of study. The college began in 1913 to provide an opportunity for men and women to learn more about the Bible and to train them to more effectively minister in local churches. By 1970, the college had expanded to include professional programs in music, teacher education, and social work.

The undergraduate school offers programs for the Bachelor of Science in Bible degree and is designed primarily for high school graduates. It is intended to build a foundation of religious instruction for graduate study and ministry opportunities. The professional programs are designed to give the student the skills necessary to function in today's world with all of its demands for effective utilization and communication of information.

Nature of the Problem

One of the many requirements for students majoring in Bible in the undergraduate school is the writing of research papers. These papers or reports are designed to develop research skills, sharpen writing skills, encourage critical thinking, and promote problem-solving skills. These skills are the classic components of what is defined as information literacy. The skills needed for each of the papers assigned by individual professors should ideally be taught and reinforced throughout the curriculum.

The problem is that the students are not adequately prepared to write their research papers. First, the freshman English Composition course encourages research skills, in general, with limited time spent on research strategies and the utilization of specific tools within a library. The director of the library is given one class hour to present a short session on research strategies along with a brief library tour. Library staff often finds that the students

who attend these one class hour presentations are unable to locate information resources for similar topics in classes other than English Composition. In addition, students often return to the director of the library for clarification on the use of the library catalog or with additional questions because there was not enough time following the original presentation.

Second, students seem to lack critical thinking skills and see the information that they memorize as useful only for examinations and short reports. They are unable to find information in the library under related subject headings and are often satisfied with books and other materials that are not scholarly. The biggest complaint that faculty and library staff hear from students is that the library does not have the quantity of information resources to meet the needs of the student body. Librarians often find that the student failed to understand that their particular topic may be found as a part of a book, rather than the sole topic within a work.

Purpose of the Project

The purpose of this project was to create an information literacy program for the undergraduate school at the college.

Background and Significance of the Problem

It is expected that by the time students graduate from Philadelphia College of Bible, they will have developed research skills, will have sharpened writing skills, will have been encouraged to improve their critical thinking skills, and will have been involved with assignments and projects that promoted problem-solving skills. These skills should ideally be taught and reinforced throughout the curriculum. Three academic purpose statements within the mission of the college includes portions of an information literacy program. The college intends (a) to stimulate within students a spirit of inquiry and discernment, (b) to cultivate students' abilities in the arts of reading, writing, speaking and listening, and (c) to encourage

students to integrate knowledge in a way that will develop mature patterns of behavior (Philadelphia College of Bible, 1993, pp. 13-14).

The problem is that the students are not adequately prepared by the current curriculum to demonstrate efficient information literacy skills. There are attempts to generally encourage research skills within the English Composition course taken in the first year of college, but this instruction is not supported throughout the curriculum.

The creation of an information literacy program will not only affect the curriculum of the traditional undergraduate program at Philadelphia College of Bible, it will also impact the expectations of both faculty and students. Professors and instructors will be advertised by the college public relations department as concerned about students' lifelong skills and this will have a positive influence upon the college's enrollment and reputation.

This project not only reflects directly upon library administration and the need for library directors to understand current leadership theory and practice, but it also emphasizes that effective library administrators need to understand and apply behaviors, characteristics, critical concepts, and tasks demonstrated by effective leaders from other disciplines and contexts. This project gives the director of the library at Philadelphia College of Bible an opportunity to demonstrate leadership as a library administrator in such a way that it will impact the students and faculty at the college for many years to come.

Research Questions

There were four research questions for this project. First, what are other institutions of higher education doing to meet the information literacy needs of their students? Second, what kind of guidance can be given to faculty members for them to adequately participate in the information literacy program? Third, what will enable students in the undergraduate school to complete research papers while they participate in the information literacy program? Fourth,

how should an information literacy program in the undergraduate school be implemented and evaluated?

Definition of Terms

There are seven important terms in this report:

Bibliographic instruction. This is a formal or informal program for assisting library patrons in locating information resources within a library.

Information. This is defined as ideas, facts, data, and imaginative works of the mind which have been communicated, recorded, published, and/or distributed formally or informally in any format.

Information literacy. This is the ability to access and evaluate information for a given need.

Information literacy program. An information literacy program is the staff, faculty, and administration of the college working together to increase students' awareness of information sources, train students to critically assess the information that is gathered, instruct students on how to efficiently access information, and encourage students to effectively manipulate and communicate what they have learned to people in the world around them.

Information resources. Items which contain information can include books, journals, audio-visual materials, reference works, computer databases, and people.

Learning Resource Center. A learning resource center includes a library and additional facilities such as media centers, curriculum laboratories, classrooms, and group facilities.

Library. This is a building or a location where information resources are contained.

Chapter 2

REVIEW OF LITERATURE

The review of the literature that pertains to the development of an information literacy program includes an examination into the background of information literacy and the importance of defining what makes up an information literacy program. Numerous experts on information literacy were surveyed to see how they measured outcomes in information literacy programs and how the application of the components of an information literacy program were made in schools, colleges, and universities today.

Definition

Information literacy is a term that has become very popular between librarians and information specialists. Paul G. Zurkowski is credited with first using the term in 1974 in his work on information service (Ridgeway, 1990, p. 645). He stated that "(1) information resources are applied in a work situation, (2) techniques and skills are needed for using information tools and primary sources, and (3) information is used in problem solving" (Behrens, 1994, p. 310).

The 1989 Final Report of the American Library Association Presidential Committee on Information Literacy was written in response to A Nation at Risk, a report written by the National Commission on Excellence in Education that completely ignored the important role libraries could play in the information age. The 1989 report by the American Library Association not only reacted to the lack of respect given to librarians, it also went on to define information literacy and its impact upon an individual. The Final Report of the American Library Association Presidential Committee on Information Literacy (1989) goes even further in stating:

> A person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Ultimately, information-literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in a way that others can learn from them. (p. 1)

Otis Hall Robinson established three instructional goals in 1881 at the American Library Association conference which included critical judgment, the need for students to become independent learners, and the need for students to become lifelong learners. Tiefel (1995) states that "from these objectives has recently come the idea of information literacy" (p. 320).

In the past, the terms bibliographic instruction and research skills instruction were thought to be sufficient. But, Lenox and Walker (1994) state:

> Today, teaching information literacy involves curriculum and information strategies designed to help students formulate the right questions, to teach them how to use information resources to answer their questions, to help them understand how information is generated by them as a result of the integration of body, mind, and spirit into a tapestry of skills, knowledge, abilities, and awareness, and most import, to provide a carefully designed curriculum and pedagogy designed for helping them use their knowledge in deciding, acting, and behaving in this world. (p. 61)

Bleakley and Carrigan (1994) define their concept of an information literacy program with the following five-pronged process:

1. Students first identify the kind of information needed to address a specific problem.
2. Then, they locate and access the information.
3. They analyze and evaluate the content.
4. They decide how to use the information and organize it appropriately.
5. Finally, students effectively communicate the outcome. (p. 5)

The authors warn that this approach to information literacy was not to be viewed as a progression through a series of steps but rather the focus should be upon the handling of information as a whole.

It was boldly stated by Mendrinos (1994) that "information literacy is intricately tied to the models of teaching and instructional theory" (p. 8). The writer further defines the two types of information literacy tools as the cognitive tools and the physical tools. Cognitive tools

would include research strategy and critical thinking skills, while the physical tools would involve the use of any format that contained information. An information literate person would have the ability to acquire information, organize it, synthesize ideas, evaluate the value of the information, and then apply the information that has been processed to solve problems and seek solutions.

Green and Gilbert (1995) bluntly state that "information literacy . . . will be essential for the growing cadre of knowledge workers and professionals in the 21st century" (p. 22). The writers insist that this is a challenge that must be addressed by all academic institutions throughout the United States, with librarians and teaching faculty working together to meet this educational crisis.

Over the past twenty years, institutions of higher education have recognized the need to concentrate on develop critical thinking skills. MacAdam (1995) notes that "curricular reform included a particular emphasis on writing, information handling, and reasoning skills across the curriculum, as well as a recommitment to develop independent, self-motivated, lifelong learners" (p. 238). She suggests that a partnership be formed between the classroom and the library to support critical thinking skills through the assignment of projects that focus on significant questions and force students to analyze and synthesize information into knowledge.

Atton (1994, pp. 310-312) argues that critical thinking skills are a prerequisite for information retrieval or research skills. A critical thinking exercise with some related examples was given that developed a questioning approach among the students. This encouraged the students to critically view their own information retrieval process, analyze the information as they gathered it, and then evaluate how they were going to present it to others.

Other Institutions

Students should be expected to efficiently access information, critically evaluate it, and effectively manipulate and communicate knowledge to others. Rader (1990) was successfully able to communicate that

> information-literate students are able to understand the importance of information in our society, to articulate and focus their information needs, to understand the structure and form of information, to recognize the points of access to information, to develop strategies for information gathering, to evaluate and analyze information content, to synthesize, manage, and report their results, and to evaluate their search process. (p. 880)

As a result of Rader's work, a policy on information literacy was adopted at Cleveland State University, with the librarians and faculty working together to incorporate the concept of information literacy into the curriculum. Course assignments began to promote the use of research skills in the investigation of a problem, required the evaluation and analysis of information that was found in the research, and gave students both oral and written opportunities to report the products of their research and thinking to others.

An example was given by Mabry (1995) where at the University of Minnesota students were taught information literacy skills through the technique of cooperative learning. Rather than giving a lecture for one class hour on how to use a library, a facilitator would guide small group discussions in how to conduct research which led to cooperative skills, critical thinking, personal interaction, and processing (pp. 182-183). Mabry concludes that using cooperative learning techniques with limited lecture and maximum student participation more than adequately prepare students in research and critical thinking skills. A brief five-item evaluation was given at the end of each session to determine the effectiveness of the cooperative learning strategies.

Naito (1991, p. 293) establishes the basic components of information literacy in a proposed research methods course at the University of Hawaii as helping students understand what information is, assisting them to know when they need to access information, instructing them in how and where to access the information that they need, and then teaching them how to use it.

The University of California at Berkeley has developed a program called Library Update which requires a $10.00 fee for faculty and graduate students (cited in Shirato, 1992, pp. 11-21). This two-hour series of seminars is offered more than once throughout the year. It includes topics related to researching electronic files, communications software, and resources in subjects of common interest.

A similar program was launched at Wheaton College in Norton, Massachusetts, in 1989. Marcia Grimes (cited in Shirato, 1992, pp. 149) presented the College's Faculty-Librarian Partnership Program with three primary objectives that included "(1) to incorporate library instruction skills into the curriculum, through faculty/librarian collaboration; (2) in that process, to also teach students to develop critical thinking skills, and (3) to incorporate use of the new technology into the curriculum".

Metoyer-Duran (1992, p. 365) notes that creating information literacy is more than simply teaching library skills. It is a process that enables students to effectively access appropriate information and to apply information to problems found in life. Tribal community colleges were surveyed to see if they were effectively promoting information literacy among their students. This survey looked for instruction in research skills, the promotion of critical thinking skills in problem solving, and the opportunity for students to present the product of their research and thinking in writing or in oral presentations.

The Ohio State University Library (Tiefel, 1995, pp. 330-331) in 1987 began to develop a program called The Gateway to Information. In the early 1980s, the library staff was conducting more than 5,000 workshops and seminars and reaching only one-half of the student body. This Gateway was designed and promoted as a tool to conveniently help university students find, evaluate, and select the most useful information without the assistance of the library staff. This online instruction was made available on terminals throughout the campus and provided instruction in identifying information sources and offered instruction in evaluating and selecting the best information regardless of format. Constant revisions have been made using student evaluations, observation, and interviews. Future plans include access to the Internet for access by other institutions.

Earlham College (Rader, 1995) is another example where an information literacy program was successful because of several special factors:

> 1. Library administrators had long-term commitments to integrate library instruction into the curriculum.
> 2. Librarians and faculty worked together in curriculum development; and
> 3. The institution had a strong commitment to excellent educational outcomes for the students in the areas of critical thinking, problem-solving, and information skills. (p. 271)

Berger and Hines (1994, pp. 306-308) reported that the Duke University Library engaged a marketing research firm to conduct a survey that would determine what the library users really wanted. Focus groups were organized to describe the nature of their information needs, their current experiences in collecting information and their perceptions on how the library system and its services could be improved. The results from the focus groups were used to draft a mailed survey form. The respondents to the survey commented on information seeking skills, the kinds of retrieval tools that they currently used, and what kinds of information retrieval sources they would like to see in the future.

The University of Louisville saw that there was a need for an information literacy program, so they nationally advertised in the classified section of November, 1995, issue of American Libraries for their newly created position of Director of the Office of Information Literacy. They (University of Louisville, 1995) stated that they were looking for "an enthusiastic, service-oriented librarian or educator to play a key role in the transformation of traditional library education programs into an integrated information literacy program" (p. 1062). They further said that they were looking for someone who would work well with both faculty and students. Their goal was to develop a new university wide instruction program that would "enable students . . . to find, evaluate, and make effective use of information in all formats" (p. 1062).

An open door of opportunity was given by the Director of Learning Resources Center of the Newark and Central Ohio Technical College in the Ohio State University system. Students who did poorly on entrance tests were required to take a refresher course. Bakker (1992) volunteered to participate in this course and used it as an opportunity to introduce information literacy as both a basic skill in studying at a technical college and in life in general. The information literacy program had two simple goals: (1) knowing how to find information, and (2) knowing how to evaluate the information found (p. 25).

Faculty Participation

Curran (cited in Varlejs, 1991, pp. 44-46) insists that librarians must be an integral part of what is defined as the information literacy chain. Step four in the information literacy chain is presented as the ability to interpret, organize, and synthesize information. Step five was defined as the ability to use and communicate information, which Curran points out has long been considered outside the responsibilities of librarians. He strongly encourages librarians to be both proactive and cooperative with faculty as they expand their role in the information

literacy chain. This could include a major part in the instruction of students in collaboration with classroom instructors, with joint planning sessions in the design of assignments and papers for students.

Farber (1995) observes that the relationship between faculty and librarians has changed from resistance in the past to potential cooperation in the future. He notes that faculty "still exhibit some reluctance to share the classroom or to take the time to plan library instruction, still overestimate students' abilities to use library resources, and still do not really understand how improving that ability can help . . ." (p. 432). The writer admits optimistically that things are changing slowly. A new generation of faculty is much more willing to accept librarians as colleagues because they realize the information challenges of today and the impact that information technology now has upon research.

Green and Gilbert (1995) pessimistically feel that most faculties in institutions of higher education have no idea how to address the information literacy needs of students today (pp. 23-25). Few teaching materials have been designed and some faculty members have only recently begun to learn how to navigate through the vast amount of information made available through the information technology revolution. But, the writers conclude that any information literacy program can only succeed if the faculty are there to give guidance.

A compilation of papers and materials aptly entitled Working with Faculty in the New Electronic Library includes an article by Anne Lipow on outreach to faculty (cited in Shirato, 1992, pp. 7-24). The author gave the following four reasons why it was important for librarians to work with faculty members:

> First, there are new bibliographic concepts to be learned, and faculty must learn them if they are to be successful library users and information seekers. The second reason has to do with faculty as a particular group of information seekers. A third reason to work with

> faculty is that they are an important entree to students. And the fourth reason comes down to survival: working directly with faculty in new ways plays a crucial part in our changing role as professionals in the changing information industry. (p. 7)

In addition to the reasons, the writer suggested that seminars for faculty and newsletters were effective tools to encourage faculty cooperation and participation in an information literacy program (p. 11).

The Dana Faculty-Librarian Partnership Workshops at Wheaton College in Norton, Massachusetts, were labeled as a "key element" (cited in Shirato, 1992, p. 149) in encouraging the faculty to include time for elements of an information literacy program in the curriculum. The workshops provided an opportunity for faculty and librarians to discuss the concept of faculty-librarian partnerships in teaching research skills and developing critical thinking skills.

Beaubien, Hogan, and George (1982) state that it is important for librarians to understand the educational and career backgrounds of faculty to predict the faculty's own research needs and to anticipate faculty reaction to programs planned for their students (p. 13). It was suggested further that programs be established with sufficient publicity to involve faculty in workshops and seminars in subject areas of interest and research.

A vision for the future also includes restructured schools with teachers and librarians interacting with each other in involving students actively in the process of knowing what they need to know, finding and identifying needed information, organizing the information, and using the information in a way that solves a problem or addresses an issue at hand (Bleakley & Carrigan, 1994, pp. 3-5). Teachers and librarians need to work together as collegial coaches and collaborative researchers to convince students that research skills, critical thinking skills, and the application of information to issues and problems will empower them for life. Activities must be cooperatively and carefully planned by both librarians and teachers to meet the information literacy needs of the students. "As facilitators, educators encourage the

learners to use resources selectively to find information. Then, the teacher and the librarian persuade and prod students to analyze, evaluate, organize, and communicate their information" (Bleakley & Carrigan, 1994, p. 5). Mendrinos (1994) similarly noted that the partnership between teachers and librarians "is time-consuming but the rewards are great when students are excited about learning, exchanging ideas, researching, and pushing their limits" (p. 123).

Hardesty (1995) makes it very clear that the continued efforts by librarians to reach out to faculty are essential if any program affecting the educational process at an institution of higher learning is to be successful (p. 339). But, this author believes that there are many reasons for the perceived lack of cooperation between librarians and faculty. One reason is that the lack of instruction on teaching theory and methods serves as a hindrance to any efforts on the part of librarians to improve the educational process at a college or university (pp. 349-350). A second reason is that the professor assumes that students know how to use libraries. Another reason is that faculty do not view librarians as their peers. A fifth reason is that there is a lack of time to make changes in class preparation and in modifying the curriculum.

Hardesty (1995) not only points out the difficulties, but the writer has some suggestions on how to encourage faculty participation in an information literacy program. First of all, the librarian needs to be proactive and take the initiative to involve the faculty (p. 361). Second, one-on-one informal contacts between librarians and faculty will demonstrate an interest by librarians in what the faculty is trying to accomplish and an interest in what the students need. Third, librarians need to be sensitive to faculty culture. Last of all, it is important that librarians learn to share what they are doing in information literacy with faculty members and not just with other librarians (p. 362). Overall, Hardesty was optimistic that persistence and understanding would go a long way toward reaching the goals of any library program.

Lenox and Walker (1994) continue on in this direction by insisting that "equally clear is the need for educational leaders, teachers, librarians and other information professionals to forge partnerships . . . to develop a citizenry skilled in accessing and effectively using information" (p. 65). They repeat that librarians must "forge partnerships with teachers and other educators to integrate information resources into the curriculum" (p. 67).

The Middle States Association of Colleges and Schools Standards for Accreditation (Commission on Higher Education,1994) includes a statement which says that "it is essential to have an active and continuing program . . . developed collaboratively and supported actively by faculty, librarians, academic deans, and other information providers" (p. 15). Two symposia were called by the Middle States Symposia in cooperation with the Association of College and Research Libraries to explore further opportunities in information literacy initiatives. A summary booklet (Commission on Higher Education, 1995) noted that "several of the components of information literacy are clearly within the scope of current faculty concerns" (p. 3). They also said that faculty need to "shift from being disseminators of substantial amounts of content information to being facilitators for students who are independent learners" (p. 8).

Student Participation

The exponential increase in the amount of information available for students through today's technology has created numerous problems. Students have difficulty in knowing where to look, fail to discern what is valuable, and then overwhelm others with pages and pages of unprocessed data. As McKenzie (1994, p.1) states "unless students have a toolkit of thinking and problem-solving skills which match the feasts of information so readily available, they may emerge from their meals bloated with techno-garbage, information junk food or info-fat."

Farber (1995) notes that today's students underestimate the complexity of finding information, share an inability to discriminate among the numerous information sources that are available, and have settled for much less by accepting almost anything that comes from a computerized source, such as the Internet (pp. 432-434). They may have more information sources than ever before in history, but they still need to be taught how to access the kind of information that will address the problems that confront them. Librarians and faculty still are needed to assist students in sifting through, evaluating, and processing that information.

Breivak and Gee (1989, p. 153) observe that the roles of libraries must change in this information age. They suggest that libraries can more effectively grapple with the information challenges of the future. College libraries should be empowered to help students achieve their goals and objectives. In the case of educating nontraditional students, an entire chapter is devoted to the academic library and its relationship with the nontraditional student. This relationship had to include research skills instruction, reinforcement of critical thinking skills, and the support of writing skills in the classroom.

The State Library and Adult Education Office of the Colorado Department of Education (1994) produced a booklet on information literacy. Rather than defining information literacy, it began with the following definition of information literate students:

> Information literate students are competent, independent learners. They know their information needs and actively engage in the world of ideas. They display confidence in their ability to solve problems and know what is relevant information. They manage technology tools to access information and to communicate. They operate comfortably in situations where there are multiple answers, as well as those with no answers. They hold high standards for their work and create quality products. Information literate students are flexible, can adapt to change and are able to function independently and in groups. (p. 1)

It was suggested by Beaubien, Hogan, and George (1982) that a comprehensive survey of the student body of an institution be conducted to adequately prepare for any new program for

students (pp. 18-21). This would include the socioeconomic and geographic background, the number of students enrolled in each class, the ratio of part-time to full-time students, whether students are taking day or night classes, how many students intend to go on for further education or training, and number of transfer students. Answers to these questions would likely give an indication as to the possible motivational level of the students and the need to focus the training at a particular level of instruction.

Naito (1991, p. 293) feels that students need the ability to understand what information is, when they need to access it, how and where to access it, and how to use it. The American Library Association Presidential Committee on Information Literacy (1989, p. 1) agreed by stating that it was essential for students to know how information is organized, how to find information, and how to use information in such a way that people around them could learn from them.

Implementation and Evaluation

Bain (1992) strongly believes that we should require students to demonstrate competency in information literacy before they graduate. The author uses the analogy of driver education and attempts to make the case that learning to "find pertinent information in books and articles and then to make an effective case statement" (p. 581) is far more important than learning to drive an automobile.

Participants in two symposia on information literacy (Commission on Higher Education, 1995) concluded that two steps needed to be followed before an information literacy program could be implemented. First, one or more individuals within an institution needed to be identified as the primary driving forces behind the program. The second step, then, would be

> to persuade the faculty and administrative staff of the importance of information literacy. This could be accomplished by addressing four immediate and long-range concerns: improving students' products, linking and refining the components of information

> literacy, focusing on the main purposes of an educational institution, and recognizing the need for shared responsibility in teaching and learning. (p. 3)

Foster (1993, pp. 344-345) in his brief article on information literacy expresses his misgivings on how to measure literacy and illiteracy. He saw the term information literacy as simply a public relations ploy to make the library world feel more important and more necessary for the well-being of the world. Foster felt that it was more important for librarians to serve their institutions in the advancement and promotion of knowledge rather than be concerned about the measurement of information literacy in individual users of libraries. The reason was that Foster did not believe that the measurement of information literacy could be done accurately or meaningfully.

On the other hand, authors such as Naito (1991, p. 293) simply assume that information literacy can simply be measured through pre- and post-testing. These tests would be based upon the objectives of individual courses. Instead of giving tests for the sake of grades, faculty would design the examinations to include components of the information literacy program, such as the location of information resources, how to use the resources, and the evaluation of the resources that were found. Naito recommends that a combination of tests, surveys, and questionnaires be administered to measure the effectiveness of the program along with the assignment of a Senior Project that would require the use of information literacy skills.

Self-assessment was suggested by Greer, Weston, and Alm (1991, p. 555) as an useful tool for measuring the effectiveness of information literacy programs, but they recommended that an identifiable core of essential information be taught that could be easily be tested. This core could then be used across the curriculum and would provide the basis for more effective dialogue between students and librarians.

Breivik and Gee (1989, p. 46) discuss various ways of measuring information literacy. Competency tests, such as the one given at the University of Wisconsin-Parkside, includes an area that combines library skills and the writing of research papers. When students cannot pass the competency test, they are required to take college courses that will bring them up to the college requirements. Credit courses at California State University at Long Beach and Wayne State University are examples of ways to measure information literacy through assignments, examinations, and projects that reflect the components of an information literacy program. The authors go even further by giving examples of active faculty and librarian cooperation in assignments that require information literacy skills.

Breivik (1992, p. 6) commends the Middle States Commission on Higher Education for requiring evaluators to look for signs of information literacy programs. Syllabi are to be examined for library-based assignments which must reflect creativity, promote active learning, and produce a display of a wide range of sources available to students at their institution's library. Also, evaluators were to look for evidence that students were being required to demonstrate advancing improvement in increasingly complex research skills by interviewing faculty specifically in this area.

The struggle to define outcomes or to measure student progress in information literacy was revealed in the efforts of a blue ribbon commission for the Minnesota State University System (Jones, cited in Farmer & Mech, 1992, p. 27). Examination scores at the end of a block of instruction on research skills led to so much criticism that they quickly adopted pre- and postmeasures. The specific measures were not mentioned in the article, but the commission insists that the measures include the six components of an information literacy: recognizing a need for information, identifying what is needed, locating it, evaluating it, organizing it, and using it effectively. After the adoption of the pre- and postmeasures, some

educators expressed dissatisfaction with the giving of examinations, when the students needed to demonstrate the application of information to real world situations. It was recommended that performance indicators be adopted that would measure skill and knowledge, such as participation in field experiences, community service projects, or diverse learning opportunities rather than examinations that could be affected by class, cultural, or racial bias.

Breivik and Gee (1989, pp. 37-39) insist that libraries and librarians have to proactively take a role in the achievement of the goal of information literacy in their institutions of higher learning. This could be done through the design, implementation, and evaluation of a new program within the overall curriculum that included the essential components of an information literacy program.

Breivik (1992, p. 6) examined the role that evaluators could play in looking for evidence that an information literacy program was working. The writing of appropriate papers in courses throughout the curriculum in conjunction with the instruction given in the research methods course would clearly demonstrate whether or not a student at Philadelphia College of Bible was able to expertly retrieve the information needed to write a paper, was competent to synthesize the information retrieved, and was able to effectively communicate that information to faculty and other students in the college community.

The State Library and Adult Education Office of the Colorado Department of Education produced five guidelines along with numerous competencies that could be measured. These guidelines and competencies were designed to include all disciplines, be applied individually or together in any educational setting and content area, and in any order.

An entire book was written by Van House, Weil, and McClure (1990) on how to measure academic library performance. The writers recommend that the primary purpose of measures should be to assess current levels of effectiveness, compare current levels of performance with

the past, diagnose particular problem areas, monitor progress toward specific objectives, and justify allocations or expenditures in those areas. They further explain that it was essential for doing good measurement to set the criteria which underlined the specific program, to choose clear measures, carefully manage the measurement effort, and then apply the information with good decision-making techniques (pp. 10-15).

In contrast to using standardized tests, Mendrinos (1994) advocates a move from such standardized testing to giving "assessment tasks that more closely resemble real life situations" (p. 7). In other words, a student's progress should be measured in the area of problem-solving, rather than as a function of memorization of mere facts and figures.

It was discovered at the University of Cincinnati (Kohl, 1995) that the success of an information literacy program was being measured by the amount of effort being put into the process of teaching students, rather in desired results. The number of contact hours did not measure whether or not a student was learning how to effectively do research, critically think, through the information that had been gathered, and then produce something that reflected what had been thought through. In other words, Kohl feels that defining outcomes will affect both how we implement our information literacy program and whether or not we are reaching our goals.

It was suggested by the participants in two information literacy symposia (Commission on Higher Education, 1995) that a set of specific outcomes be developed by faculty and librarians in a multi-disciplinary effort:

> The desired outcomes may be divided into two types: those associated with gathering the information and those related to using the information.
> Outcomes for gathering information include the following: asking the right questions, checking the quality of your sources, learning how to find authoritative sources, evaluating the information as you gather it, and gaining facility with using the technology.
> Outcomes for using information include the following: filtering large amounts of

information, learning to select and synthesize, thinking critically about the content of the information, learning to present information, and being aware of ethical issues. (p. 11)

Summary

The review of recent literature concludes that the exponential growth in information resources and the new demands of the information age have put increasing demands upon faculty and students to access appropriate information quickly, process that information with critical thinking skills, and to communicate both verbally and in writing a product that is practical, interesting, and meaningful. The development of an information literacy program will begin to address the skills needed by students as they attend classes at Philadelphia College of Bible. Students will be taught lifelong skills that will enhance their chances for survival in this information age.

The teaching of research methods must include the integral components of an information literacy program. Students need to be encouraged to expertly retrieve the information required for the writing of a paper. They then need to be moved to critical thinking, synthesizing ideas and concepts from the numerous information sources. Lastly, they need to be guided in presenting products of critical thinking in a scholarly manner that communicates competency in both research and critical thinking skills.

It is vital that the faculty and library staff at Philadelphia College of Bible work together to develop a comprehensive information literacy program that is not only supported by both faculty and library staff, but periodic evaluations must also be conducted to validate the program and to measure its progress in addressing the information literacy needs of both students and faculty. The examples given by other institutions of higher learning could prove invaluable in giving guidance to the program at Philadelphia College of Bible and to provide recommendations and suggestions for the future.

Chapter 3

METHODOLOGY AND PROCEDURES

Methodology

This project utilized the development problem-solving process. This included the description of the problem, the collection of data through research and observation, the development and implementation of a product to correct the problem, and the specifications for an evaluation of the product.

Procedures

Five procedures were used to complete the project. First, a review of the literature was conducted. The review included an emphasis upon information literacy and its possible impact upon students in undergraduate schools. The review included an investigation of what other colleges and universities are doing in the area of information literacy. The review also focused upon the role of the library director in the development and implementation of an information literacy program.

Second, the academic dean and the faculty library advisory committee were given an opportunity by a formal inquiry (see Appendixes A and B) to give suggestions and comments regarding the design, implementation, and evaluation of the information literacy program. The library director used this faculty input and the analysis of the research to develop an information literacy program for the undergraduate school. This included new research guidelines and assignments for the students. The information literacy program was made available to the academic dean, faculty members, and the professional staff of the library. The program, in its multiple forms, includes definitions, guidelines, and instructions for an annual evaluation process. Competencies are specifically defined and instruments were designed that would clearly measure growth and progress in information literacy by the student.

Third, the proposed information literacy program was reviewed by the academic dean and the academic affairs committee for recommendations and approval. A schedule was determined by the academic dean to insure completion of this initial phase.

Fourth, an overview of the information literacy program was prepared to be presented to the students, faculty, and administration on an annual basis. Comments and suggestions are to be collected throughout the school year with changes made during the summer session.

Fifth, an evaluation process was designed to insure that the information literacy program would be analyzed and improved on an annual basis. Research and faculty suggestions will be utilized to regularly implement program changes.

Assumptions

A number of assumptions were included in this project. First, it was assumed that the director of the Learning Resource Center had the experience and knowledge to develop an information literacy program. Second, the dean of the undergraduate school should support the changes suggested for the implementation of the information literacy program. Third, it was assumed that the dean of the undergraduate school and the director of the Learning Resource Center would cooperate with each other in making the necessary changes that would improve the educational process for all students in the undergraduate school at Philadelphia College of Bible.

Limitations

The product may be limited in that it is specific to students and faculty in the undergraduate school at Philadelphia College of Bible. The skills needed for the completion of research assignments should ideally be taught and reinforced throughout the entire undergraduate and graduate curriculum, but the focus was upon an information literacy program for all undergraduates at Philadelphia College of Bible. This particular information

literacy program began then as a result of an examination of what other institutions of higher education were doing to meet the information literacy needs of their students, a survey of selected faculty members on how they perceived their participation in such a program, a look at how students would be empowered to be information literate, and a review of literature on guidelines and suggestions on how to implement and evaluate such a program. These four areas are covered in the following chapter.

Chapter 4

RESULTS

Over 100 sources were collected and analyzed from the literature. These sources were primarily found in library literature, but some were located in educational and technological journals. Some materials were examined at the Commission on Higher Education of the Middle States Association of Colleges and Schools. The literature review resulted in the analysis developed in Chapter 2.

A questionnaire regarding information literacy (see Appendix A) was administered to the members of the faculty library advisory committee. The results of that questionnaire (see Appendix B) are presented as related to each of the research questions.

Approval was sought from the academic affairs committee by a written proposal (see Appendix C) for the initial phase of an information literacy program in the undergraduate school at Philadelphia College of Bible. This proposal included the definition, design, implementation, and evaluation of an information literacy program as found in the literature review and the results of the faculty library advisory committee questionnaire.

A revised student writing guide (see Appendix D) and an information literacy program booklet (see Appendix E) were also developed based upon the literature review and the results of the information literacy questionnaire. Their content and outlines comprise a major portion of a proposed faculty workshop outline (see Appendix F) that was developed for a possible presentation with the humanities department in the Fall.

The library committee questionnaire, the academic affairs committee proposal, the revised student writing guide, the information literacy program booklet, and the faculty workshop presentation outline were primarily developed as a result of the literature review.

The results are all presented in this chapter as they relate to each of the four research questions.

Research Question 1

First, what are other institutions of higher education doing to meet the information literacy needs of their students? A review of the literature found that many colleges and universities are grappling with the urgent need to design and implement information literacy programs as soon as possible. At Cleveland State University, a policy statement that included a definition of what it meant to be information literate was adopted by the faculty and administration of the university. Faculty began to give course assignments that promoted the use of research skills in the investigation of a problem, required the evaluation and analysis of information that was found in the research, and gave students both oral and written opportunities to report the products of their research and thinking to others.

Other institutions of higher education such as the University of Hawaii simply enhanced existing research methods courses by helping students understand what information is, assisting them to know when they need to access information, instructing them in how and where to access the information that they need, and then teaching them how to use it.

Other universities, such as the University of California at Berkeley and Wheaton College in Massachusetts, developed programs that focused upon the faculty and their need to understand the concept and practice of information literacy. The introduction of additional hours in research skills instruction and the use of current technology in information retrieval were easily accomplished because of the collaboration between the library staff and the faculty of the university or college. Earlham College is another example where an information literacy program was successful because of the long-term commitments of library administrators to information literacy programs, the partnership of librarians and faculty in

curriculum development, and the institution's strong commitment to student outcomes in the areas of critical thinking, problem-solving, and information skills.

Creative alternatives to the traditional methods of delivering information included The Gateway to Information program developed by the Ohio State University Library in 1987. This program was seen as the best alternative to the thousands of workshops and seminars being presented by library staff throughout the school year. This online instruction was made available on terminals throughout the campus and provided instruction in identifying information sources and offered instruction in evaluating and selecting the best information regardless of format.

Duke University Library employed a marketing research firm to assist them in conducting a survey that would determine what the library users really wanted. The respondents to the survey commented on information seeking skills, the kinds of retrieval tools that they currently used, and what kinds of information retrieval sources they would like to see in the future.

The University of Louisville demonstrated that they saw a need for an information literacy program by nationally advertising for someone to fill the newly created position of Director of the Office of Information Literacy. University officials stated that they were looking for a librarian or educator to develop an integrated information literacy program that would excite both faculty and students.

Another librarian showed some initiative by volunteering to teach a remedial course for students who did poorly on entrance tests at the Newark and Central Ohio Technical College in the Ohio State University system. This course was designed by the librarian to introduce information literacy as both a basic skill in studying at a technical college and in life in general.

The examples given by other institutions of higher education indicate that an information literacy program at Philadelphia College of Bible should include the following:

1. A policy statement adopted by the college to encourage faculty participation,
2. additional instruction in information literacy in existing research skills courses,
3. faculty participation as vital to the success of the program,
4. innovative means of delivering the necessary instruction,
5. the use of surveys to determine the information literacy needs of students,
6. the use of dedicated individuals who will work with faculty and librarians to promote the information literacy program of the college, and
7. as many opportunities as possible to meet the needs of students who are lacking information literacy skills.

The initial development of the information literacy program at Philadelphia College of Bible includes many of the components of information literacy programs found at other institutions of higher education. First, a questionnaire (see Appendix A) was administered to the academic dean and the members of the faculty library advisory committee. The results (see Appendix B) demonstrated that there was no single opinion on how the information literacy program should be designed, implemented, and evaluated. This diversity of opinion simply reinforced the variety of programs found in the literature review.

The academic dean and the academic affairs committee were asked (see Appendix C) to approve the initial phase of a proposed information literacy program that included a clear definition of information literacy. The literature review found that in other colleges and universities it was vital to have the support of the administration and the faculty for the information literacy program to be successful.

The revised student writing guide (see Appendix D) and the information literacy booklet (see Appendix E) were developed as a result of the literature review on what other institutions of higher education were doing to meet the information literacy needs of their students. The three essential information literacy components of research skills, critical thinking skills, and presentation skills were addressed in both documents.

The review of literature also included the importance of educating the faculty on both how vital it is to teach information literacy skills and the valuable role that faculty members play in the promotion of such a program. The outline of the faculty workshop presentation (see Appendix F) includes the three essential components of information literacy, but it also serves as a mechanism to encourage and enlist the participation of faculty members in the program at Philadelphia College of Bible.

Research Question 2

Second, what kind of guidance can be given to faculty members for them to adequately participate in the information literacy program? A review of the literature found that librarians need to be both proactive and cooperative with faculty as they expand their role in the development of information literacy programs. Some writers pessimistically noted that faculty still exhibited some reluctance to share the classroom or to take the time to plan library instruction, still overestimated students' abilities to use library resources, had no idea how to address the information needs of students, and still did not really understand how improving that ability could help.

It was suggested that the best way to enlist the cooperation of faculty in an information literacy program was by instructing the faculty on how to be successful library users and information seekers. Workshops could be designed to identify the components of information literacy and then to encourage the faculty to teach what they have learned to their students.

Regular seminars for faculty and newsletters could be effectively used to encourage faculty cooperation and participation in an information literacy program. Workshops could also be used as an opportunity for faculty and librarians to discuss the concept of faculty-librarian partnerships in teaching research skills and developing critical thinking skills.

It is vital that faculty and librarians work together as collegial coaches and collaborative researchers to convince students that research skills, critical thinking skills, and the application of information to issues and problems will empower them for life. Activities could be cooperatively and carefully planned by both librarians and teachers to meet the information literacy needs of the students.

This partnership between teachers and librarians will be time-consuming but the rewards will be great when students are excited about learning, exchanging ideas, researching, and sharing ideas with others. It is quite clear that the continued efforts by librarians to reach out to faculty are essential if any information literacy program is to be successful.

The review of literature revealed some suggestions on how to encourage faculty participation in an information literacy program. First of all, the librarian needs to be proactive and take the initiative to involve the faculty. Second, one-on-one informal contacts between librarians and faculty will demonstrate an interest by librarians in what the faculty is trying to accomplish and an interest in what the students need. Third, librarians need to be sensitive to faculty culture. Fourth, it is vital that librarians learn to communicate what they are trying to do in an information literacy program with faculty members and not just with other librarians.

The kind of guidance given to faculty members to participate adequately in an information literacy program at Philadelphia College of Bible should include the following:

1. Proactive and cooperative librarians,

2. opportunities to instruct faculty on information literacy skills,

3. workshops and seminars that define the information literacy program,

4. opportunities for faculty and library staff to collaborate on course assignments,

5. one-on-one interaction between faculty and librarians, and

6. regular communication between faculty and library staff on information literacy issues and concerns.

The initial development of the information literacy program at Philadelphia College of Bible includes the kind of guidance needed for faculty members to participate adequately in the information literacy program. A questionnaire (see Appendix A) was administered to the members of the faculty library advisory committee. The results (see Appendix B) demonstrated that there was interest in participating in the design, implementation, and continual evaluation of the information literacy program at Philadelphia College of Bible. There was no unanimity on the degree of involvement, but it was recognized by a majority of the respondents that the faculty had a role to play in the effectiveness of the program. The ten members of the committee all responded to the questionnaire and attended a committee meeting where the questions were evaluated and some responses were explained further. Percentages of responses are given in Table 1.

Table 1

Responses Regarding Faculty Involvement

Question	Admin	Faculty	Librarians	Students
1. Design involvement	30%	80%	50%	30%
2. Degree of involvement	60%	80%	80%	80%

Eighty percent of the respondents felt that the faculty should be involved in the design of the information literacy program and the 80% in degree of involvement signifies that the faculty should be quite heavily involved in the program. Both questions seemed to indicate that the members of the committee viewed faculty involvement as the most important, library staff second, students third, and administration last.

The members of the academic affairs committee were asked (see Appendix C) to give their approval to the initial phase of a proposed information literacy program that included a clear declaration of the importance of faculty involvement in information literacy. The literature review found that in other colleges and universities it was vital to have the knowledgeable support of the faculty for the information literacy program to be successful.

The revised student writing guide (see Appendix D) and the information literacy booklet (see Appendix E) were developed with the assistance of the humanities faculty members. The three essential information literacy components of research skills, critical thinking skills, and presentation skills were addressed in both documents. The information literacy booklet serves as an overall guide to information literacy, while the revised student writing guide was

designed to educate not only the students of the college but also to instruct faculty members on this particular subject.

The review of literature also included the importance of educating the faculty on both how vital it is to teach information literacy skills and the valuable role that faculty members play in the promotion of such a program. The outline of the faculty workshop presentation (see Appendix F) includes the three essential components of information literacy, but it also serves as a mechanism to instruct faculty members on how they can effectively administer their portion of the program at Philadelphia College of Bible. It will include the presentation of research skills instruction, the need for course assignments that promote critical thinking skills, and guidelines for evaluating both oral and written coursework. This workshop will be taught by the library director and faculty members from the Humanities department.

Research Question 3

Third, what will enable students in the undergraduate school to complete research papers while participate in the information literacy program? A review of literature found that it was important to define what was expected from an information literate student. This included the ability to learn independently of faculty and librarians, the skill to solve problems and to know what is relevant information, the facility to manage tools to access information and to communicate, and the capability to products of excellence.

It was suggested that a comprehensive survey of the student body of an institution be conducted to adequately prepare for any new information literacy program for students. This would include the socioeconomic and geographic background, the number of students enrolled in each class, the ratio of part-time to full-time students, whether students are taking day or night classes, how many students intend to go on for further education or training, and number of transfer students. Answers to these questions would likely give an indication as to the

possible motivational level of the students and the need to focus the training at a particular level of instruction.

Most of all, an information literacy program must give students the ability to understand what information is, when they need to access it, how and where to access it, and how to use information in such a way that people around them could learn from them. Faculty members and library staff can work together to ensure that opportunities are given for students to develop information literacy skills on a continuing basis.

Following are elements of an information literacy program at Philadelphia College of Bible that will enable students to complete research papers while they participate in the information literacy program:

1. A clear definition of the skills expected in research, critical thinking, and presentations;

2. a comprehensive survey of the student body by faculty and library staff; and

3. a consistent and continual reinforcement of the basic information literacy skills.

The initial development of the information literacy program at Philadelphia College of Bible includes the kind of information needed for students to adequately complete research papers while participating in the information literacy program. A questionnaire (see Appendix A) was administered to the members of the faculty library advisory committee. The results (see Appendix B) demonstrated that there was concern for student involvement and success while they were participating in the information literacy program at Philadelphia College of Bible. There was no unanimity on the degree of involvement, but it was recognized by a majority of the respondents that the students had a role to play in the success of the program. Table 2 presents the percentage of responses by the ten members of the faculty library advisory

committee on the question related to the participation of students in the information literacy program.

Table 2

Responses Regarding Student Participation

Question	All Courses	General Ed Courses	Professional Ed Courses
Which courses and programs?	50%	60%	60%

At least half of the respondents felt that all courses should have some involvement in the information literacy program at Philadelphia College of Bible. Sixty percent of the committee included courses from the General Education division as needing information literacy instruction, while only 60% of the committee decided that courses in the Professional Education division (Church Ministries, Music, Teacher Education, and Social Work) needed this program.

The members of the academic affairs committee were asked (see Appendix C) to give their approval to the initial phase of a proposed information literacy program that included a clear declaration of the importance of student success in information literacy. The literature review found that in other colleges and universities it was vital to have the interests of the students as the primary focus in order for the information literacy program to be successful.

The revised student writing guide (see Appendix D) and the information literacy booklet (see Appendix E) were developed with the assistance of the humanities faculty members. The revision of the college's writing guide by the Humanities department faculty and the library director provides to students both the clear definition of information literacy skills and

consistent and continual reinforcement. Not only will the writing guide be used in the teaching of the English Composition courses, but it is to be used by students to understand what are the standards and expectations for the writing of research papers. The three essential information literacy components of research skills, critical thinking skills, and presentation skills were addressed in both documents. The information literacy booklet serves as an overall guide to information literacy for a general audience, while the revised student writing guide was designed primarily to educate the students of the college.

The review of literature also included the importance of educating the faculty on both how vital it is to teach information literacy skills and the valuable role that faculty members play in teaching these skills to students. The outline of the faculty workshop presentation (see Appendix F) includes the three essential components of information literacy, but it also serves as a reminder on how important it is to effectively communicate both the need for information literacy and the lifelong impact information literacy can have upon a student. It will include instruction on the value of research skills instruction for students, the need for course assignments that promote students' critical thinking skills, and guidelines for evaluating students' oral and written coursework. This workshop will be taught to the faculty by the library director and faculty members from the Humanities department, but it will have a tremendous impact upon the educational experience of students in the undergraduate school at Philadelphia College of Bible.

Research Question 4

Fourth, how should an information literacy program in the undergraduate school be implemented and evaluated? A review of the literature found that it was important both to identify one or more individuals to serve as the primary driving forces behind an information literacy program and to persuade the faculty and staff of the institution of higher education of

the importance of information literacy. Implementation should include as many members of the college or university community as possible, but it needs to be administrated carefully and with a plan for eventual and regular evaluation.

The most difficult task pertaining to an information literacy program at a college or university seems to be in the area of evaluation. The literature review revealed that very few information literacy specialists agreed on how to measure standard competencies. Some suggested that instead of pre- and post-testing, tests should be based upon the objectives of individual courses. Instead of giving tests for the sake of grades, faculty could design the examinations to include components of the information literacy program, such as the location of information resources, how to use the resources, and the evaluation of the resources that were found.

Other writers recommended that a combination of tests, surveys, and questionnaires be administered to measure the effectiveness of the program along with the assignment of a Senior Project that would require the use of information literacy skills. Others thought that self-assessment would serve as an useful tool for measuring the effectiveness of information literacy programs, but they recommended that an identifiable core of essential information be taught that could be easily be tested. This core could then be used across the curriculum and would provide the basis for more effective dialogue between students and librarians.

Competency tests, such as the one given at the University of Wisconsin-Parkside, includes an area that combines library skills and the writing of research papers. When students cannot pass the competency test, they are required to take college courses that would bring them up to the college requirements. Other universities measured information literacy skills through assignments, examinations, and projects that reflected the components of an information literacy program.

Several regional accrediting bodies require evaluators to look for signs of information literacy programs. Syllabi are examined for library-based assignments which reflect creativity, promotion of active learning, and opportunities for expression. Also, evaluators look for evidence that students are required to demonstrate advancing improvement in increasingly complex research skills by interviewing faculty specifically in this area.

The danger is that the success of an information literacy program could be measured by the amount of effort being put into the process of teaching students, rather in desired results. The number of contact hours does not measure whether or not a student was learning how to effectively research, critically think through the information that had been gathered, and then produce something that reflected what had been thought through. Thus, defining outcomes will affect both how the implementation of the information literacy program and determine whether the goals are being reached.

It was suggested that specific outcomes be developed by faculty and librarians that define outcomes with gathering the information and those related to using the information. Outcomes for gathering information could include asking the right questions, checking the quality of the sources, learning how to find authoritative sources, evaluating the information as it is gathered, and gaining facility with the use of technology. Outcomes for using information could include managing large amounts of information, learning to select and synthesize, thinking critically about the content of the information, learning to present information, and being aware of ethical issues.

The ways that an information literacy program in the undergraduate school should be implemented and evaluated include

1. The identification of those individuals who will serve as the driving forces behind the program,

2. the participation of as many as possible within the college community,
3. clearly agreed upon competencies or outcomes that can be measured,
4. regularly administered survey instruments to measure program effectiveness, and
5. references to the program within syllabi.

The initial implementation of the information literacy program in the undergraduate school at Philadelphia College of Bible includes the identification of the library director and the professors within the Humanities department as the driving forces behind the program. A questionnaire (see Appendix A) was administered to the members of the faculty library advisory committee and it served as a mechanism to initiate the implementation and evaluation of an information literacy program. The results (see Appendix B) demonstrated that there were questions on how the information literacy program should be implemented and evaluated.

Table 3

Responses Regarding Kind Of Training

Question	Student Courses	Seminars	Faculty Workshops
What kind of training?	20%	20%	60%

At least 60% of the respondents to the questionnaire felt that faculty training was essential. Then student training could follow as a result of the faculty having received hands-on training in this area.

There was no agreement by all respondents on how to implement and evaluate such a program, but it was recognized by a majority of the respondents that something had to be done

to meet the information literacy needs the students. There also was no agreement on how often the information literacy program should be evaluated as presented in Table 4.

Table 4

Responses Regarding Evaluation Process

Question	Questionnaire	Faculty Analysis	Student Analysis
How to evaluate?	10%	90%	30%

Almost all of the respondents felt that the faculty members should evaluate the information literacy program using any mechanism that would accurately measure the effectiveness of the program. This could include the analysis of student bibliographies, papers written by students, and examination results. Table 5 addresses the issue of how often an evaluation of the information literacy program should be conducted. A specific evaluation is given in Chapter 5.

Table 5

Responses Regarding Frequency Of Evaluation

Question	Continually	Semester	1 year	2 years	3 years	4 years	No answer
How often?	10%	10%	20%	10%	10%	10%	30%

There obviously was quite a difference in the responses related to frequency of evaluation. In the meeting following the administration of the questionnaire, some respondents

recommended that the faculty library advisory committee assist the library director in regularly measuring the progress of the information literacy by designing the survey instruments, collecting the data, and then making recommendations to the faculty as a whole on improvements. Table 6 displays the need for cooperation and participation by the administration, the faculty, and the library staff in disseminating the results of an evaluation and in making recommendations to the faculty for improvements in the design and implementation of the information literacy program at Philadelphia College of Bible.

Table 6

Responses Regarding Dissemination And Recommendations

Questions	Dean	Faculty	Librarians	Students	Other
1. Who disseminates?	30%	20%	20%	0%	10%
2. Who recommends?	10%	20%	30%	10%	10%

The results of these two questions will need to be studied further, but most (30%) felt that the Academic Dean was responsible for disseminating the results of any evaluation of the information literacy program. At least two members of the committee had no opinion. In the matter of who should make recommendations to the faculty on improvements to the information literacy program, a small majority (30%) felt that the library director should carry out this responsibility.

The members of the academic affairs committee were asked (see Appendix C) to give their approval to the initial phase of a proposed information literacy program that included a clear declaration of the importance of continual development and evaluation of information

literacy skills. The literature review found that in other colleges and universities it was important to view the information literacy program as a dynamic program that would continue to be modified and improved based upon valid instruments of evaluation conducted on a regular basis.

The revised student writing guide (see Appendix D) and the information literacy booklet (see Appendix E) were developed with the assistance of the humanities faculty members as a means to implementing the information literacy program at Philadelphia College of Bible. The revision of the college's writing guide by the Humanities department faculty and the library director not only initiates the development of the information literacy program but also provides the checklists for faculty and students to measure the effectiveness of the existing program. The writing guide will be used primarily to understand what are the standards and expectations for the writing of research papers, but it will also assist in the evaluation of the program. The three essential information literacy components of research skills, critical thinking skills, and presentation skills were addressed in both documents. The information literacy booklet serves as an overall guide to information literacy for a general audience, while the revised student writing guide was designed primarily to educate the students of the college.

The review of literature included the importance of evaluating any information literacy program on a regular basis. The outline of the faculty workshop presentation (see Appendix F) includes the three essential components of information literacy, but it also serves as a reminder on how important it is to continually enhance the communication of the basics of information literacy and the setting of standards for evaluation. It will include instruction on how to teach research skills, various ways to promote students' critical thinking skills, and guidelines for evaluating students' oral and written coursework. This workshop will be taught with the

determination that constant improvements and regular evaluations of the information literacy program will be necessary.

The initial implementation of an information literacy program in the undergraduate school at Philadelphia College of Bible serves as only a beginning to years of continual development, enhancement, refinement, and evaluation. Additional research will probably lead to new techniques, the abandonment of some processes, and continual frustration. In the following chapter, the discussion of information literacy, conclusions, implications, and recommendations for the future will simply serve as a motivation to constant improvement and a striving for excellence as the challenge of an information literacy program continues at Philadelphia College of Bible.

Chapter 5

DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Discussion

The exponential growth in information resources and the greater demands of the information age have put increasing demands upon students to access appropriate information quickly, process that information with critical thinking skills, and to communicate both verbally and in writing a product that is practical, interesting, and meaningful. The development of an information literacy program must begin with an understanding of the concept of information literacy and then move to address the skills needed by students as they attend classes at Philadelphia College of Bible. Students must be taught lifelong skills that will enable them to survive in this information age.

Information literacy is a term that has numerous definitions among librarians and information specialists. All of the definitions include the fact that a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Ultimately, information-literate people are those who have learned how to learn. They know how to learn because they understand how knowledge is organized, know how to find information, and are able to use information in a way that others can learn from them.

The information literacy program booklet (see Appendix E) was written to give a definition for information literacy, to explain the importance of information literacy at Philadelphia College of Bible, and to encourage everyone to support this kind of program today. It includes four checklists on research skills, critical thinking skills, oral presentation skills, and written presentation skills. The booklet concludes with a section on the implications

of information literacy and how the development of the information literacy program at Philadelphia College of Bible will have a progressively greater impact upon students and faculty as the world moves deeper into the present information age. The staff, faculty, and administration are asked to commit themselves to increasing each student's awareness of information sources, to train students on how to critically assess the information that is gathered, and to encourage students to effectively manipulate and communicate what has been learned to people in the world around them.

Librarians today know that information literacy is more than bibliographic instruction or research skills instruction under a different name. They can no longer accept the traditional approaches to the use of information resources, because teaching information literacy today involves strategies designed to help students ask the right questions, to teach them how to use information resources to answer their questions, and to help them understand how information is generated by them as a result of the process of synthesis. Librarians and faculty members need to assist students in blending skills, knowledge, abilities, and awareness in a manner that will help them use their knowledge in deciding, acting, and behaving in this world.

A majority of the sources found in the literature review noted quite simply that students must first identify the kind of information needed to address a specific problem before they can locate and access the information. Then they can analyze and evaluate the content. Next, they must decide how to use the information and organize it appropriately. Finally, students need to be taught how to effectively communicate the outcome of this process to others.

The revised student writing guide (see Appendix D) was developed to incorporate the concepts of information literacy in writing for the students and for the faculty of Philadelphia College of Bible. The original writing guide contained only instructions on form and style related to writing research papers at the college. The revised student writing guide was

A similar program was launched at Wheaton College in Norton, Massachusetts, in 1989. The objectives of that program included the incorporation of library instruction skills into the curriculum through faculty/librarian collaboration. The program also was designed to teach students to develop critical thinking skills and included the incorporation of new technology into the curriculum.

It is important to note that other examples provided us with an information literacy program with several special factors. They included the fact that library administrators had to make long-term commitments to integrate library instruction into the curriculum. Librarians and faculty were strongly encouraged to work together in curriculum development and it was emphasized that the institution had to make a strong commitment to excellent educational outcomes for students in the areas of critical thinking, problem-solving, and information skills.

The University of Louisville was so convinced of a need for an information literacy program that they nationally advertised for a newly created position of Director of the Office of Information Literacy. Their goal was to develop a new university wide instruction program that would enable students to find, evaluate, and make effective use of information in all formats. They decided to hire a key person to promote that information literacy program.

Many writers explained that there were many reasons why librarians ought to work with faculty members in the design, implementation, and evaluation of an information literacy program. First, there are new bibliographic concepts to be learned, and faculty must learn them if they are to be successful information seekers and library users. The second reason has to do with the fact that faculty have unique information needs as conduct professional research and as they prepare to teach. A third reason to work with faculty is that they are an important entree to students. They see the students on a regular basis and their influence is great. And the fourth reason comes down to the survival of the profession of librarianship. Working

designed to provide additional sections on research skills, critical thinking skills, and oral presentation skills. Checklists were drafted to include questions to be answered by students on the major components of research strategies, critical thinking skills, and classroom assignments.

The two types of information literacy tools are the cognitive tools and the physical tools. Cognitive tools would include research strategy and critical thinking skills, while the physical tools would involve the use of any format that contained information. An information literate person will have the ability to acquire information, organize it, synthesize ideas, evaluate the value of the information, and then apply the information that has been processed to solve problems and seek solutions.

In examining what other institutions were doing, it was found that students should be expected to efficiently access information, critically evaluate it, and effectively manipulate and communicate knowledge to others. A policy on information literacy was adopted at Cleveland State University, with the librarians and faculty working together to incorporate the concept of information literacy into the curriculum. Course assignments were given to promote the use of research skills in the investigation of a problem, instructors required the evaluation and analysis of information that was found in the research, and faculty gave students both oral and written opportunities to report the products of their research and thinking to others.

A research methods course at the University of Hawaii was designed to help students understand what information is, assist them to know when they need to access information, instruct them in how and where to access the information that they need, and then teach them how to use it. The University of California at Berkeley developed a two-hour series of seminars with topics related to researching electronic files, communications software, and resources in subjects of common interest.

directly with faculty in new ways plays a crucial part in the changing role of the librarian in today's rapidly changing information age. Seminars for faculty and newsletters are excellent tools to encourage faculty cooperation and participation in an information literacy program. The involvement of the faculty library advisory committee (see Appendix B) and the approval by the academic affairs committee (see Appendix C) marked the beginning of a formalized information literacy program at Philadelphia College of Bible.

Wheaton College in Norton, Massachusetts, encouraged the faculty to include elements of an information literacy program in the curriculum. Workshops were given to provide an opportunity for faculty and librarians to discuss the concept of faculty-librarian partnerships in teaching research skills and developing critical thinking skills. This effort encouraged teachers and librarians interacting with each other as collegial coaches and collaborative researchers to convince students that research skills, critical thinking skills, and the application of information to issues and problems will empower them for life. As a result of this example, a faculty workshop presentation (see Appendix F) is now planned for the Fall semester at Philadelphia College of Bible.

Some writers pointed out some difficulties in encouraging faculty participation, but many had some suggestions on how to encourage faculty participation in an information literacy program. First of all, it was suggested that the librarian be proactive and take the initiative to involve the faculty. Second, one-on-one informal contacts between librarians and faculty would demonstrate an interest by librarians in what the faculty is trying to accomplish and an interest in what the students need. Today's students underestimate the complexity of finding information, share an inability to discriminate among the numerous information sources that are available, and have settled for much less by accepting almost anything that comes from a computerized source, such as the Internet. Librarians and faculty must forge a partnership to

assist students in sifting through, evaluating, and processing information. They need to focus upon the student and understand that information literate students must be competent, independent learners. They need to realize their information needs and must actively engage in the world of ideas. They must be taught to confidently solve problems by applying relevant information. They must be instructed on how to manage today's tools of technology to access information and to communicate ideas to others. They must learn to operate comfortably in situations where there are multiple answers, as well as those where there are no answers. They must be held to high standards for their work and must be encourage to create quality products. Information literate students need to be flexible, be ready to adapt to change and must be able to function independently and in groups.

Implementation and evaluation seem to be quite difficult to define and measure. The design and implementation of an information literacy program must begin with one or more individuals within an institution being identified as the primary driving forces behind the program. The second step, then, would be to persuade the faculty at the institution of higher education of the importance of information literacy. This can be accomplished by improving students' products, linking and refining the components of information literacy, focusing on the main purposes of the educational institution, and recognizing the need for shared responsibility by faculty and librarians in teaching and learning.

Evaluation will need to be performed on an annual basis (see Appendix G) by the library director and the faculty library advisory committee utilizing the information literacy evaluation packet. This packet contains evaluation criteria for syllabi and assignments, evaluation criteria for student presentations, an evaluation schedule, and evaluation guidelines and procedures for the faculty library advisory committee. Checklists were designed to make the whole process easy to follow and convenient to maintain.

Some writers simply stated that information literacy could be measured through pre- and post-testing. These tests would be based upon the objectives of individual courses. Instead of giving tests for the sake of grades, faculty would design the examinations to include components of the information literacy program, such as the location of information resources, how to use the resources, and the evaluation of the resources that were found. Some librarians recommended that a combination of tests, surveys, and questionnaires be administered to measure the effectiveness of the program along with the assignment of a Senior Project that would require the use of information literacy skills. These information literacy skills could include recognizing a need for information, identifying what is needed, locating it, evaluating it, organizing it, and using it effectively. After the adoption of the pre- and postmeasures, some educators expressed dissatisfaction with the giving of examinations, when the students needed to demonstrate the application of information to real world situations. It was recommended that performance indicators be adopted that would measure skill and knowledge, such as participation in field experiences, community service projects, or diverse learning opportunities rather than examinations that could be affected by class, cultural, or racial bias.

Librarians need to proactively take a role in the achievement of information literacy in colleges and universities. This could be done through the design, implementation, and evaluation of a new program within the overall curriculum that included the essential components of an information literacy program. The writing of appropriate papers in courses throughout the curriculum in conjunction with the instruction given in the research methods course would clearly demonstrate whether or not a student at Philadelphia College of Bible was able to expertly retrieve the information needed to write a paper, was competent to synthesize the information retrieved, and was able to effectively communicate that information to faculty and other students in the college community.

It was suggested that a set of specific outcomes be developed by faculty and librarians in a multi-disciplinary effort. The desired outcomes could be divided into two types: those associated with gathering the information and those related to using the information. Outcomes for gathering information would include the following: asking the right questions, checking the quality of one's sources, learning how to find authoritative sources, evaluating the information as one gathers it, and gaining facility with using the technology. Outcomes for using information would include filtering large amounts of information, learning to select and synthesize, thinking critically about the content of the information, learning to present information, and being aware of ethical issues. The revised student writing guide (see Appendix D) and the information literacy program booklet (see Appendix E) were developed to include measurable outcomes that would utilized both as standards for students and evaluative tools for faculty and information literacy program directors.

Conclusions

The development, implementation, and evaluation of an information literacy program in the undergraduate school at Philadelphia College of Bible is very likely to succeed. Students will be far more comfortable in the research process, faculty will be supportive as they see student improvement in course assignments, and the administration may see higher scores in student satisfaction with the Bible degree program. It is essential that the library staff and the faculty of the undergraduate school cooperate together in their efforts to see students learn. The information literacy program needs to be more than short bibliographic instruction sessions, but rather the effort should encompass the entire curriculum and involve every course instructor. The success of the information literacy program in the college will encourage other schools within the college to take advantage of the changes.

The key individual for determining the success or failure of an information literacy program will be the library director. The support of the college administration and the participation of the faculty will depend upon the ability of the library director to communicate the need, solicit the cooperation of the faculty, and press for continual evaluation and improvement in the area of information literacy.

An information literacy program needs to primarily address the information needs of students at Philadelphia College of Bible. The review of literature revealed that there are a variety of means to accomplish this task. Workshops and seminars continue to be a popular way of delivering the information, but other colleges and universities have moved into using computers to improve effectiveness and accessibility. A regular and comprehensive survey process is essential to measure whether or not the goals and objectives of the information literacy program are being met. The evaluation of the data collected needs to reinforce the importance of the program and the need for support from the administration and faculty.

Implications

The exponential growth in information resources and the new demands of the information age have put increasing demands upon faculty and students to access appropriate information quickly, process that information with critical thinking skills, and to communicate both verbally and in writing a product that is practical, interesting, and meaningful. The development of an information literacy program for the undergraduate school will begin to address the informational needs of the students and will positively impact their production of papers and oral reports. Graduates will have learned lifelong skills that will enhance their chances for survival in this information age.

The development of an information literacy program will be a significant challenge for faculty members. Expectations for students will be raised as students will be required to

demonstrate proficiency in research skills, critical thinking skills, and presentation skills. Improvement will be reflected in the quality of content in course assignments. Faculty members will also be expected to professionally demonstrate growth in information skills in their own research and preparation for classroom instruction.

In addition to the impact that an information literacy program will have upon students and faculty, it will also contribute to a change in the role of the director of the library at Philadelphia College of Bible. The director will no longer be perceived as a museum curator, but as an active and innovative member of the college team. Traditional lines of communication and management will have to be adapted to include information literacy specialists, such as the director of the library, as equal contributors to the learning process at the college.

The information literacy program could also impact recruitment and retention in the traditional undergraduate program at Philadelphia College of Bible. The sense of accomplishment and the feeling that they can succeed in any course of study will encourage students to not only finish their studies, but they will also enthusiastically recruit others for the undergraduate program.

Recommendations

Recommendations for Implementation

It is recommended that the academic dean and the members of the academic affairs committee of the undergraduate school of Philadelphia College of Bible work with the director of the Learning Resource Center in assessing and possibly revising the assignments given in courses throughout the undergraduate school curriculum. The criteria for information literacy skills would include research skills components, the demand for critical thinking, and the provision for innovative ways to promote presentation skills.

It is also recommended that the faculty library committee be trained further in the concepts of information literacy and be utilized as a promotional force within the college to encourage cooperation, participation, and support. The committee members could serve not only as liaisons within the college, but would also serve as area specialists to suggest applications within their own departments and divisions.

Faculty development workshops should be given at least twice by outside experts in the field of information literacy that would promote information literacy and provoke change. The office of the academic dean could make these arrangements with the assistance of the director of the Learning Resource Center. These outside speakers would be enlisted to suggest innovative ways to promote information literacy and to describe what they were doing at their college or university.

Recommendations for Dissemination

It is recommended that a copy of the revised student writing guide be distributed not only to all of the undergraduate faculty, but that it also be distributed to faculty and administration of the other schools within the college for the their input and scrutiny. It could be suggested that portions of this proposed program be studied for possible use in the graduate and non-traditional programs.

The information literacy program booklet should be distributed throughout the college constituency to encourage exposure to the concepts of information literacy. This booklet could also be used by the college admissions department in the recruitment of new students to present an additional lifelong benefit in enrolling at Philadelphia College of Bible.

Recommendations for Further Research

It is recommended that further study be done by the library director and the faculty library committee on how information literacy could be measured. Basic outcomes will need

to be drafted, approved by the faculty with the cooperation of the academic dean, and evaluated on an regular basis with the assistance of the faculty library committee. The library director will be expected to continue to lobby for further growth and improvement in this area.

Further research is also necessary on the variety of ways to deliver an information literacy program to students and faculty. Literature will need to be monitored to see what other colleges and universities are doing, but field trips and telephone calls on a regular basis will be helpful to examine firsthand the implementation of an information literacy program at nearby colleges and universities. The use of computers will need to be explored as a tool that could present information literacy skills in creative, exciting, and innovative ways.

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APPENDIXES

Appendix A

Questionnaire Regarding Information Literacy

Dear Faculty Library Advisory Committee Member:

I am involved in developing an information literacy program for PCB and I need your suggestions and comments regarding the design, implementation, and evaluation of such a program. An information literacy program is defined as the staff, faculty, and administration of the college working together to increase students' awareness of information sources, train students to critically assess the information that is gathered, instruct students on how to efficiently access information, and encourage students to effectively manipulate and communicate what they have learned to people in the world around them. I would appreciate any comments and suggestions that you may have in each of the areas below. After all of the comments and suggestions are compiled, we will meet as a committee with the Academic Dean to review the results.

A. The design of an information literacy program

1. Who should be involved in the design of an information literacy program?

2. To what varying degrees should administration, faculty, staff, and students be involved?

B. The implementation of an information literacy program

1. Which courses and programs need to see the information literacy program immediately?

2. What kind of training should be given faculty and students regarding the components of an information literacy program?

3. How long should it take to implement this program throughout the entire curriculum?

C. Evaluation of an information literacy program

1. What is the best way to evaluate the success of an information literacy program?

2. How often should the information literacy program be evaluated?

3. How should the results of an evaluation impact the curriculum?

4. Who should be responsible for disseminating the results of the evaluation?

5. Who should be responsible for making recommendations to the faculty on improving the design and implementation of the information literacy program?

Appendix B

Responses to Questionnaire

January 30, 1996- This is a compilation of the responses to the questionnaire.

Questionnaire Regarding Information Literacy

Dear Faculty Library Advisory Committee Member:

I am involved in developing an information literacy program for PCB and I need your suggestions and comments regarding the design, implementation, and evaluation of such a program. An information literacy program is defined as the staff, faculty, and administration of the college working together to increase students' awareness of information sources, train students to critically assess the information that is gathered, instruct students on how to efficiently access information, and encourage students to effectively manipulate and communicate what they have learned to people in the world around them. I would appreciate any comments and suggestions that you may have in each of the areas below. After all of the comments and suggestions are compiled, we will meet as a committee with the Academic Dean to review the results.

A. The design of an information literacy program

1. Who should be involved in the design of an information literacy program?

Faculty, staff, students, especially those familiar with the resources available

The teaching faculty with the assistance of the LRC personnel

All faculty to be sure that the proposed program meets all of the students' research needs

The faculty or the the ones who design and implement the curriculum, goals, and objects of courses and programs, those who are ultimately responsible for the learning in the institution

Administration, library staff, and a select group of particularly informed faculty members

Faculty, staff (LRC), MIS staff, students, administration

Interested faculty, staff, and students

The administration should also be a part of this effort

Those who have direct involvement in the academic program

2. To what varying degrees should administration, faculty, staff, and students be involved?

   Administration- necessary; faculty & staff- those interested; students- eventually all

   The faculty should articulate the research needs for the students; the LRC personnel should help to create the info-literacy program specifically to address those needs; the students should give feedback on the program and make helpful suggestions

   I think that faculty and students should be the most involved. Staff, other than library staff, would probably not add much to the process. I think library staff should use the fac/student response to further identify the needs

   The administration must declare what resources will be available and when The staff must assist in making the resource of information available to faculty and students. Students must be taught how to use information, and in the process must share with faculty where they are in the learning process so the programs developed are not beneath or above them. And knowing the students of this time, information literacy must be quite broad because of the range of abilities and backgrounds of various students. But the main responsibility rests with the faculty

   Administration- 30%, Library staff- 50%, Faculty- 20%

   Faculty- 50%, Students- 20%, Staff- 15%, Administration- 15%

   Heavily. I would like to see some students who are randomly selected be involved. That way we would see what their issues are

   Faculty and LRC director should work together with administration and students giving input

B. The implementation of an information literacy program

   1. Which courses and programs need to see the information literacy program immediately?

      All!!- Teacher ed. and social work probably need access to more info the most desperately

      Music history, social work, and grad school all have components on research. The info lit program will undoubtedly strengthen and refine the existing structures

English composition is the first avenue to "get" to new students. Professors who assign research projects/papers

Each faculty member will say, "Mine!" But in reality, those who have not developed any programs, or where students have no present resources (music, social work, and education have programs in place now) need to be given priority

Humanities, EN 131 particularly. However, I would think it should be phased with all three Divisions at the same time

Intro course in General Education (writing and speaking, intro Bible courses, Professional Ed (major) courses

English Comp. Introduction course in social science/behavioral sciences

Those most closely affected by it (I don't know which those would be)

Education in research skills needs to continue from English Comp to other courses throughout the four years

2. What kind of training should be given faculty and students regarding the components of an information literacy program?

A training seminar could be implemented in this situation. Do the library staff and faculty first. Then students by seniority, need, or interest until everyone has attended

In the age of exploding technology and increasingly sophisticated software, both faculty and students can benefit from a continuing education from the LRC on improving research

There should probably be overall general training followed by training in specific areas, i.e., history, Bible

It is hard to limit this- and to describe because the components change. Whereas 10 years ago the area was limited, in general, to books and microforms (printed material), recently it has gone from visual material or disk to CD ROM and to the WWW. Who knows what will be next? And, may students and faculty have not yet mastered the printed material stage. For, our major resources are now in printed material. It would be unwise to bypass this in favor of training in online materials and the WWW

A workshop for faculty. I am not sure what you have in mind for students

Faculty meeting with hands on and lots of time for questions

What is involved and how it can be accessed. Probably a hands-on program.

Students need hands-on experience in info lit or research skills.

3. How long should it take to implement this program throughout the entire curriculum?

Making everyone aware of info that is available (through the seminar or some other means) could be accomplished in a year (and then all incoming students each successive year). But, as far as the whole curriculum, that would be up to the faculty cooperation and usage of the program. I think that serious students would be very interested

Perhaps 1 to 2 years to get everyone involved; then a built-in structure to make sure we keep current

A good question! One possibly is to begin with the new freshmen and develop the program over four years. The other possibility is to orient freshmen with the general and specific training- making it mandatory. Perhaps the students could opt to attend training. (It seems like a time consuming endeavor to involve all students in 1 year)

It will never be complete, for technology is ever advancing. We can hope to give basics in these areas to students and faculty, but the development will have to be on their time and in their responsibility. We must begin and provide basics for all (faculty and students). The difficulty here will be doing it. We now do not have a place in some curricula for information literacy. Those programs that do include it offer specialized training that relates to their area, not to the total sources available in the College LRC. It may become necessary, then, to include something in information literacy in each course. But, as this becomes more complex with multiple resources of print, technology, and visual materials, it is doubtful if a student will be able to gain a comprehensive literacy during college years. In reality, it is a life-long task

One or two years

I have no idea as I don't know what it will look like

C. Evaluation of an information literacy program

1. What is the best way to evaluate the success of an information literacy program?

Course-specific questionnaire

Professors' analysis of improved research skills. Students' self-analysis of research skills

If a student (or faculty member) has learned to gain the information he/she needs, and is able to use it properly, the activity is successful. In general, few students demonstrate this with research projects. But research projects are only one phase of information literacy

Each faculty member should be able to determine this by methods appropriate to his or her discipline

Establishing competency based evaluation

Let all parties evaluate after they have been exposed and then a year later focusing in on their use of the LRC

Is it used by students and do they find it helpful

2. How often should the information literacy program be evaluated?

Once every three years

Students - yearly (end of year) and probably faculty

Continually

Why not at the end of each semester?

4 years

2 years

Annually

3. How should the results of an evaluation impact the curriculum?

Help faculty make better research assignments

I think it will first affect the program- changes that are needed. Then, it will affect those profs directly concerned with implementing the program

Results impart changes. Weakness demonstrated should encourage development of alternate activities to increase acquisition of knowledge

I'm not sure what you mean by the curriculum. The results would shape the way each course is taught in the future by evaluating faculty/student progress

We should assume that evaluation will lead to modification

If it is found that students aren't better able to use the LRC, then increase exposure

It should be changed in light of the evaluation

4. Who should be responsible for disseminating the results of the evaluation?

Director of LRC

The Academic Dean- since this is a faculty-instruction issue

Faculty

Academic Dean

Dean and/or Division chairs

Planning and Research should evaluate and disseminate the results

The person who oversees the program

5. Who should be responsible for making recommendations to the faculty on improving the design and implementation of the information literacy program?

Students should have some input

Director of LRC

The Academic Dean. Can the faculty improve the design? It would seem that this would be the Head Librarian?!

Faculty

Librarian

Academic Affairs committee

Don't know

I don't understand enough about what this program will look like to make a judgment

Appendix C

Proposal to Academic Affairs Committee

An Information Literacy Program at PCB

Submitted by Lyn Brown, Director of Learning Resources

Background

One of the many requirements for students majoring in Bible in the undergraduate school is the writing of research papers. These papers or reports are designed to develop research skills, sharpen writing skills, encourage critical thinking, and promote problem-solving skills. These skills are the classic components of what is defined as information literacy. The skills needed for each of the papers assigned by individual professors should ideally be taught and reinforced throughout the curriculum.

The problem is that the students are not adequately prepared to write their research papers. First, the freshman English Composition course encourages research skills, in general, with limited time spent on research strategies and the utilization of specific tools within a library. The director of the library is given one class hour to present a session on research strategies along with a brief library tour. Library staff often finds that the students who attend these one class hour presentations are unable to locate information resources for similar topics in classes other than English Composition. In addition, students often return to the director of the library for clarification on the use of the library catalog or with additional questions because there was not enough time following the original presentation.

Second, students seem to lack critical thinking skills and see the information that they memorize as useful only for examinations and short reports. They are unable to find information in the library under related subject headings and are often satisfied with books and other materials that are not scholarly. The biggest complaint that faculty and library staff hear from students is that the library does not have the amount of information resources to meet the needs of the student body. Librarians often find that students failed to understand that their particular topic may be found as a part of a book, rather than the sole topic within a work.

Doctoral Program

I am currently writing my dissertation which is the last requirement for an Ed.D. in Higher Education Administration from Nova Southeastern University. I hope to complete the dissertation by the end of this semester. This developmental project is the design, implementation, and evaluation of an information literacy program for the undergraduate school at PCB.

An information literacy program is defined as the staff, faculty, and administration of the college working together to increase students' awareness of information sources, train students to critically assess the information that is gathered, instruct students on how to efficiently access information, and encourage students to effectively manipulate and communicate what they have learned to people in the world around them. As you can see, this is much more than

the traditional bibliographic instruction or research skills instruction most often provided by library staff.

One of the requirements for this doctoral project is the review of my proposal by the academic affairs committee and the academic dean. What I need is your tentative approval for the implementation of the beginning stages of such a program, with your recommendations and guidance for the future. I need the initial approval to satisfy the requirements of the doctoral program and then I will continue in years to come to fully develop this program with the faculty and the library serving as partners in a program that will benefit both our students and our faculty.

Program Proposal

The initial phase of the information literacy program would include the following:

1. The development of an enhanced writing guide which would include a revision of the current writing guide and additional materials on research skills and presentation skills. This is currently being developed by Lyn Brown, Jean Minto, Renee Younger Mayk, Howard Laing, and Bob Wenger.
2. The writing of a program guide to be used by faculty, library staff, and students to understand the goals and objectives of an information literacy program at PCB. I would present a general overview of what information literacy includes along with suggestions and examples. This would a brief overview for anyone to use for guidance.
3. The presentation of a faculty workshop by Lyn Brown and Jean Minto (others?) on suggestions for research skills instruction and writing skills competencies. This would be an enhanced follow-up on a previous session conducted by the Humanities faculty.
4. The utilization of the library committee in developing further ideas on how to implement further enhancements and improvements to our information literacy program at PCB. This would also include the development of an evaluation process to determine on an annual basis the progress of the program and its continued emphasis in the curricula at PCB.

Bottom Line

What I need, first, is your tentative approval to proceed with the initial phase of the information literacy program in the undergraduate school. Second, I need your recommendations and guidance as I continue to develop this program beyond the requirements of my doctoral program. It is my vision that the libraries at PCB become more than just information repositories, but that we all work together as partners (faculty, staff, and administration) in the teaching and development of lifelong skills such as information literacy for our students.

Appendix D

Writing Guide

PCB RESEARCH HANDBOOK

Humanities Department

Masland Learning Resource Center

Philadelphia College of Bible

March, 1996

TABLE OF CONTENTS

BY WAY OF INTRODUCTION

Your work at Philadelphia College of Bible will include assigned papers, projects, and oral presentations of various kinds. These assignments are important: they exercise your ability to express your ideas clearly; to make sound, independent evaluations; and to locate and use with increasing competence the information resources needed in developing your topics.

It is absolutely vital in today's rapidly changing world to develop the skills necessary to handle the challenges of tomorrow. The staff, faculty, and administration are committed to increasing each student's awareness of information sources, to train students on how to critically assess the information that is gathered, and to encourage students to effectively manipulate and communicate what has been learned to people in the world around them.

This research guide has been developed to serve both as an introduction that is new to some students and as a constant reminder to students on how to effectively and competently complete the assigned papers, projects, and oral presentations that are assigned by professors. The guide is divided into three major sections:

1. Research skills. A brief presentation will be given regarding a research strategy that will enable a student to effectively and quickly locate the kinds of information needed to competently complete an assignment.

2. Critical thinking skills. This will include some ideas on how to select appropriate and valid information, encouragement on making judgments on the value of information sources, and some reminders on drawing the right conclusions.

3. Presentation skills. Guidelines and suggestions will be presented to enable each student to exercise their abilities to clearly express ideas orally and in writing. This will include tips on grammar, outlining, and highlights on questions on form and style frequently asked by students.

Some suggestions on how to get further assistance and a brief bibliography will conclude this guide.

RESEARCH SKILLS

Gathering information that will enable you to write a paper or prepare for a speech requires hard work, sound preparation, and a strategy. Whether you are physically walking into a library or you are surfing the Internet, it is essential that you know HOW to find the information you need and WHERE to locate the best information for your topic. Knowing how to find what you need requires a research strategy and knowing where to locate what you need demands an awareness of the resources available both inside and outside the libraries at PCB.

Most researchers follow this strategy:

1. Define your terms -- use the reference collection. In other words, you are going to look in encyclopedias and dictionaries to get an idea about what you are working on.

   Hint--IT IS ABSOLUTELY ESSENTIAL THAT YOU BEGIN HERE!
   You will be able to not only get a concise overview of your topic, you will also be able to write down a list of key words, related subjects or topics, and a list of resources that are listed in a bibliography at the end of the encyclopedia article.

2. Broaden your horizon -- use the main circulating collection. This is where the books are located that you can check out from the library. THIS SHOULD NEVER BE THE FIRST STEP. Because you began your research in the reference section, you will be able to quickly search for authors, titles, and subjects that you found in your initial investigation of the topic. Access to the books in the library is found through the computerized catalog workstations located throughout the library.

   Hint-- Use the topics that you noted in your research in the encyclopedias and other reference materials as subject headings or keywords in your search on the catalog. You may initially experience some difficulty in looking up your topic, but you will be able to persist in your search for what you need because you began your research in the reference section of the library.

3. Keeping current -- use the periodical collection. Periodicals include journals, magazines, and newspapers that are primarily published on a regular or periodic basis. Most professors will require some references in your papers or projects to articles found in periodicals. This research step is not the easiest, but you can learn how. You must keep in mind that this area requires a lot of work, time, and some patience. You must use the periodical indexes to find the information you need to complete your assignment. Indexes are primarily subject indexes that list magazine or journal articles under topics.

   Hint--Your search strategy will be similar to what you accomplished in the library catalog. You will utilize the words related to your topic that you found

in the reference works as you search the indexes. You may initially experience some difficulty in looking up your topic, but you will be able to persist in your search for what you need because you began your research in the reference section of the library. Today's technology is rapidly working to make this process easier by utilizing computers and CD-ROM indexes. Ask your librarian for help in this area.

A few more hints--Use the library photocopiers to make a copy of journal and magazine articles that you need. DO NOT cut out what you need or rip out the article. This permanently damages the periodical and frustrates other students when they find the article missing. Carefully note all of the information you need to properly make a citation in your paper and in your bibliography. Check the listing of periodicals subscribed to by the library to make sure you are looking for a journal found in this particular library.

When looking for Bible references, you may need to look under "Bible--OT--Genesis" for something in Genesis. What would it be for something in Romans?

Look for materials outside the library. Literature may be obtained at organizations such as embassies, travel agencies, and other public relations organizations. Use the telephone book.

Look for information from other people. Ask a librarian or ask for help from professors who may be experts in your subject area.

RESEARCH SKILLS CHECKLIST

YES	NO	
		Reference Section
[ ]	[ ]	1. Dictionaries and encyclopedias. Did I start here first in my research on my assignment?
[ ]	[ ]	2. Dictionaries and encyclopedias. Did I find out more about my topic by looking for similar terms and related subjects?
[ ]	[ ]	3. Bibliography. Did I find a listing of authors, titles, and related resources listed in the encyclopedia articles?
		Main Circulating Collection
[ ]	[ ]	1. Catalog. Did I look here <u>after</u> doing my research in the reference collection?
[ ]	[ ]	2. Catalog. Did I use the listing of authors, titles, and related subject headings in my search of the catalog?
		Periodical Collection
[ ]	[ ]	1. Indexes. Did I search the periodical indexes after gathering information in the reference collection?
[ ]	[ ]	2. Indexes. Did I use the subject headings that I found in the dictionaries and encyclopedias?
[ ]	[ ]	3. Citations. Did I write down the complete citation for the articles that I found?
[ ]	[ ]	4. Articles. Did I make photocopies of the articles that I needed rather than tearing them out of the periodical?
		Additional Considerations
[ ]	[ ]	1. Other resources. Did I check to see if I could gather information from other organizations or people outside the library?
[ ]	[ ]	2. Librarians. Did I check with the library staff to see if they could help me?

CRITICAL THINKING SKILLS

The writing of a paper or the giving of a speech includes more than gathering ten to fifteen quotations and listing them in any order for the professor's approval. In expressing your ideas in an assignment, you need to not only select your topic, you need to state your purpose and support it with evidence from your research. Whether you are presenting an argument or not, it is important that you select information resources that will enable you to clearly and persuasively convince your audience (i.e., professors) that you have exhaustively investigated your topic, wrestle with the various facts and opinions related to your topic, and then arrive at a personal conclusion.

There are at least seven critical thinking steps that are necessary in writing a research paper or preparing for an oral presentation. The steps are as follows:

1. Survey your information and clarify any unfamiliar terms. Have you gained an increased knowledge and understanding of your topic?

2. Determine the quality of your resources by examining the credentials of the authors presenting the facts and their opinions. Are the sources primary or secondary? Is the presentation scholarly, practical, or meaningless?

3. Make sure that you have collected more than one viewpoint on the subject. Are all sides of the issue being presented in your paper or project?

4. Look for more than just facts. Seek expert opinions and testimony that will either support or argue against your conclusion. Can you apply the facts, ideas, and opinions that you have gathered to your topic?

5. Analyze your research to determine if you are comprehensive, complete, and fair.

6. Synthesize where necessary. Your research may not produce exactly what you were trying to prove, but you may be able to combine two or more ideas from other sources to support your ideas.

7. Compare your conclusions with recognized experts in your subject area and determine if what you have concluded is accurate, consistent, and logical.

CRITICAL THINKING SKILLS CHECKLIST

YES	NO	
		Knowledge
[ ]	[ ]	1. Information. Did I survey my information and clarify any unfamiliar terms?
[ ]	[ ]	2. Facts. Did I gain an increased knowledge and understanding of my topic?
		Comprehension
[ ]	[ ]	1. Quality. Did I examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly or incomplete?
[ ]	[ ]	2. Sources. Are the sources primary or secondary?
		Application
[ ]	[ ]	1. Support. Do the expert opinions gathered support or argue against my conclusion?
[ ]	[ ]	2. Apply. Can I apply the facts, ideas, and opinions that I gathered to my topic?
		Analysis
[ ]	[ ]	1. Overview. Was my research comprehensive and complete?
[ ]	[ ]	2. Differences. Am I able to distinguish between facts and opinions?
		Synthesis
[ ]	[ ]	1. Process. Was I able to work with pieces and parts from my research and combine them into one whole idea?
[ ]	[ ]	2. Product. Is my project a result of my work and not the simple compilation of numerous facts and ideas?
		Evaluation
[ ]	[ ]	1. Comparison. How does my conclusion compare with recognized experts in the subject area?
[ ]	[ ]	2. Conclusions. Is what I concluded accurate, consistent, and logical?

PRESENTATION SKILLS

Your work at Philadelphia College of Bible will include assigned oral presentations and writing projects. These projects give you an opportunity to express your ideas clearly in either a written or oral forum. The following information is designed to enable you to successfully complete these assignments in a manner that reflects your ability to research a topic, competently organize and think through the issues, and then present the results of your work to others.

Writing Assignments

Here are a few general suggestions that will help you to succeed in writing assignments:

1. Writing is not effortless. Finding the best approach, form, language, and ideas for a specific assignment require a great deal of work.

2. Allow yourself sufficient time. Arrange to complete your first draft at least three days before it is due. Put it aside temporarily (while you recover your critical objectivity), then revise and edit it. If you omit these important steps, your professor will have to do the editing for you, and you will probably be asked to rewrite your paper.

3. Use fresh, clear language. Choose words for their ability to express precisely what you wish to say. Resist the temptation to let words master you. Overworked phrases and jargon add nothing but vagueness; using them robs your writing of precision and originality. Pretentious words call attention only to themselves, not to the point you are trying to clarify. Your ideas deserve better.

4. Make certain that your paper has a central idea that is fully and logically supported or developed. This central idea is referred to as your thesis statement, and it is the one important point of view that your paper is expressing and upholding.

5. Unless you are otherwise instructed, type all of your papers. Always double space, using 8 - 1/2 by 11-inch non-erasable paper. Be sure to use a ribbon that produces legible type. Most instructors prefer that you not use a binder; simply staple your pages together. You are encouraged to use the PCB Computer Lab for typing and revising your paper.

Form and style

PCB has adopted the MLA format found in Writing Research Papers (Lester) as the standard reference in matters of form and style. This text is required for all composition and literature classes and is available in the PCB bookstore. Unless your professor stipulates otherwise, you should refer to this concise, illustrated manual for the answers to questions that arise while you are preparing papers.

Here are a few highlights on questions frequently raised by students. Some of this information, particularly that which applies to papers on biblical subjects, is not included in Writing Research Papers.

1. A separate title page is not required for your college papers. Your name, box number, the title and number of your course, your professor's name, and the date are typewritten (double-spaced) in the upper left portion of page one. If your professor prefers a separate title page, he or she will provide instructions.

2. The new MLA format requires no footnote or endnote. Endnotes are used only for explanatory purposes. Replace endnotes with the author's last name, either introduced in the body of the paper, or included in parentheses with the page number of the text quoted: (Brown 24). If the author's last name is incorporated within the text, only the page number is placed in parentheses: (24). The Works Cited section at the end of your paper will then provide complete bibliographic information.

3. Use initials without spacing or periods when referring to a frequently mentioned organization or publication that has three or more letters in its usual abbreviation. When there are only two letters, it is customary to use periods, but no spacing. Abbreviations ending in a small letter, however, should be followed by a period.

PCB	B.C.	Mr.
NEB	U.S.	Dept.

Note, however, that the first mention of the name of the publication, organization, etc., should be spelled out in full.

4. Although book titles are to be underlined, sacred writings are exceptions to this rule. When referring to the Bible itself, books of the Bible, or versions of the Bible, do not underline.

Old Testament:

Gen.	1 Sam.	Esther	Lam.	Mic.
Exod.	2 Sam.	Job	Ezek.	Nah.
Lev.	1 Kings	Ps.	Dan.	Hab.
Num.	2 Kings	Prov.	Hos.	Zeph.
Deut.	1 Chron.	Eccles.	Joel	Hag.
Josh.	2 Chron.	Song of Sol.	Amos	Zech.
Judg.	Ezra	Isa.	Obad.	Mal.
Ruth	Neh.	Jer.	Jonah	

New Testament:

Matt.	1 Cor.	1 Thess.	Heb.	3 John
Mark	2 Cor.	2 Thess.	James	Jude
Luke	Gal.	1 Tim.	1 Pet.	Rev.
John	Eph.	2 Tim.	2 Pet.	
Acts	Phil.	Titus	1 John	
Rom.	Col.	Phile.	2 John	

5. In giving references to biblical books, chapters, and verses, use arabic numerals. Separate chapter and verse by a colon.

   2 Tim. 3:16 Prov. 27:1

   When using a series of references, use a semicolon to separate references from each other.

   James 3:6; Ps. 39:1; Prov. 4:24

6. When a biblical reference is a substantial part of your sentence, spell out the name of the book.

   In Matthew 5:16 we read of the importance of light.

   When using a biblical reference to support what you have written, you may abbreviate the name of the book.

   The heavens reveal God's glory (Ps. 19:1).

7. When referring to a version other than the King James, include initials that identify the version used.

   Matt. 11:28 (NASB)

8. Always capitalize the following words:

   God (except in this kind of reference: "Money is his god.")
   Gospel (when referring to one of the first four books of the New Testament or to the Christian message)
   Christ, Christian, Christianity
   Bible, Scripture, the Scriptures (when referring to sacred writings; but not in this kind of reference: "That handbook is his bible.")
   He, Him, His, You, Your, Yours, Thou, Thee, Thine (when referring to God, Jesus, or the Holy Spirit)

Do not capitalize the following:

who, whom, whose (even when referring to deity)
biblical, biblically
scriptural, scripturally
scripture, scriptures (when referring to verses, as in "The following scriptures support my point: Gen. 1:1; 2:1; 31." But: "We are taught in Scripture to love one another." Or: "We are taught in the Scriptures . . . .")

Note: Journalistic practices differ from the above with regard to capitalization. Those given here, however, reflect the practices in academic writing.

Using scriptural references in outlines of biblical passages

1. Every division in your outline must be followed by a reference to the chapters or verses that it covers.

2. Do not omit any of the verses from the passage you are outlining; be sure they are all included somewhere.

3. Do not skip around in the passage you are outlining, except in very unusual circumstances. Doing so results in a topical study rather than an outline.

4. References should not overlap in your outline. Do not, for example, include a particular verse as the last one under point one and also as the first one under point two. Note the error in the following:

    1. --------, 2:1-3
    2. --------, 2:3-6

5. Do not include in a subdivision any references that are not covered in the heading under which the subdivision falls.

6. Do not list chapters or verses individually if there is more than one. Write "6-9" (not, "6, 7, 8, 9").

    Use a hyphen to indicate "through," when there are two or more chapters or verses to be included. Use a comma (meaning "and") only where verses are not consecutive, as in the following:

    John 3:5-7, 9, 12

7. If your beginning reference includes both chapter and verse, and if the passage extends into the following chapter, your concluding reference must also include chapter and verse.

   8:1-9:19 (not 8 to 9:19)
   8:4-9:19 (not 8:4-9)

   But if all verses are contained in the same chapter, there is no need to repeat the number of the chapter.

   8:4-17 (not 8:4-8:17)

8. You need not write "chapter" or its abbreviation after a heading.

   I. The Church in Christ, 1
   (Not I. The Church in Christ, Chapter 1)

9. You need not write "verse" or its abbreviation after your subheadings.

   I. Paul's plans, 3:1-7 (or just 1-7)
   (Not I. Paul's plans, verses 1-7 or vv. 1-7)

10. If a division falls within a verse, indicate parts of the verse by uncapitalized letters.

    1. --------, 1-3a
    2. --------, 3b-5

Procedure

Most college writing is persuasive or argumentative; it expresses a point of view and then argues for it. The following is an abbreviated description of the step-by-step process of writing a persuasive paper. Admittedly simplified, it omits mention of the false starts and detours that all writers experience. It provides a guide, however, because it is based upon the kind of organization that underlies most nonfiction writing, whether short or book length. It is capable of holding together innumerable varieties of content.

1. Ponder your subject deeply. If necessary, do some reading in the library until you know enough about your subject to form an opinion, a point of view, on one aspect of it.

2. This opinion is your thesis. Write it at the top of a legal-sized pad and work with it until it is worded clearly, precisely, and economically. Be sure that you have written a single statement. (A compound sentence would make two statements, so it would be unacceptable.)

   Example: Everyone should study at least one foreign language.

3. Ask yourself why you hold the point of view expressed in your thesis, and write down as many one-sentence "reasons" as you can think of. Work with these reasons, eliminating overlapping thoughts and making sure they are parallel. Arrange them in an order of increasing interest or importance.

   Examples: (Reason 1) One may very well find a practical use for this kind of knowledge.
   (Reason 2) Studying a foreign language reveals a great deal about the people who speak it.
   (Reason 3) Knowing the grammar and vocabulary of a second language provides a point of comparison that enriches one's understanding of English.

4. Begin with an introduction that will be sure to create interest in your thesis. Lead up to it smoothly, and write it out as the last sentence in your paragraph.

5. If you wish to: 1) explain anything further about your thesis, 2) define any words that you are using in an unusual way, or 3) make a (polite) comment about those who hold views that differ from the one expressed in your thesis, write a paragraph that fulfills this purpose.

6. Now use your first "reason" as a topic sentence, writing it at the beginning of the next paragraph. Follow this topic sentence with examples or illustrations and with discussion, all of which clarify the point made in the topic sentence. (Note: In research writing, the examples, illustrations, and discussion are chiefly from library sources and must be documented.)

7. Do the same with reasons 2, 3, 4, etc. (Note that in a longer paper each point will undoubtedly be subdivided and will require several paragraphs rather than only one.)

8. Summarize your position in conclusion, but try to do so without being obviously repetitious. If possible, push your point a little further, creating an upbeat ending. You may do this by referring briefly to some value that will follow if your point of view (thesis) is accepted.

9. Make sure that you use transition phrases and words to "smooth out" your discussion, to link sentences, paragraphs, and ideas together, and to relate everything to your thesis. Here are a few examples of transition phrases:

for example	finally
moreover	not only . . . but also
in fact	that is

10. Type the paper and put it away for two or three days. Finally, proofread, revise, and retype it. A good paper often begins with your third draft.

Note: You will probably notice that the same principles and procedures involved in writing a coherent paper apply to constructing an effective oral message. Learning to write well will enhance your ability to speak well.

Plagiarism

In your written themes and term papers you will sometimes present and discuss the ideas of others. Intellectual honesty, the first principle of scholarship, requires that you clearly acknowledge the source of all "borrowed" material. Failure to do so is a kind of stealing that is called plagiarism. This very serious form of misconduct may take the following forms:

1. Copying word for word the published or unpublished work of another writer. This kind of plagiarism is deliberate and is therefore inexcusable, whether the unacknowledged borrowing is extensive or is limited to a sentence or two.

2. Presenting as your own an outline, an argument, or a striking phrase that originated with someone else.

3. Paraphrasing or summarizing information without disclosing its source. Changing the wording does not release you from the obligation to acknowledge the source through clear documentation.

4. Failing to distinguish clearly the point at which your own discussion ends and the cited material begins, or vice versa. Consider the following:

> Another disturbing development in the world of business is the overseas relocation of some operations of large corporations. Many companies are closing down plants in the States and are building new ones in foreign countries, where they enjoy tax advantages and are able to cut their labor costs by as much as 75 percent (Brown 50).

How much of the above information is to be attributed to the source that is indicated by the numeral at the end of the passage, and how much originates with the writer of the paper? There is no way to tell!

This form of plagiarism is extremely common and usually results from a failure in preciseness rather than from a deliberate desire to appropriate another person's statements. Nevertheless, this ambiguous documentation is unacceptable.

You may clear up this problem by simply inserting an introductory phrase so that the phrase immediately precedes the cited portion:

> Another disturbing development in the world of business is the overseas relocation of some operations of large corporations. Many companies are closing down plants in the States and are building new ones in foreign countries,

where they enjoy tax advantages and, as one authority points out, are able to cut their labor costs by as much as 75 percent (Brown 50).

The position of the phrase, "as one authority points out," clearly indicates that the only "borrowed" material is the information concerning the percentage of decrease in labor costs (not the moving of plants and not the idea of tax advantage).

MLA format for PCB papers

In-text Citations:

When the author is known - (Author page)

The....."....." (author page).

OR

According to Smith, "....." (page).

When the author is unknown - (Title page)

Nonprint sources (speeches, song lyrics from a CD, TV programs, etc.) - Introduce the type of source in the text so that the reader does not expect a page number.

Thompson's **lecture** defined impulse as "an action triggered by the nerves without thought for the consequences."

Double references - Introduce the speaker and include a clear reference to the book or article where the quotation or paraphrased material is found.

Martin Greenburg says, "The interventions can be construed by the adolescent as negative, overburdening and interfering with the child's ability to care for himself" (qtd. in Petersen 9).

Spacing:

Double-space throughout the paper. Longer quotations (more than 4 lines) are set off from the rest of the text by indenting 10 spaces from the left margin. The right margin of longer quotations extends to the 1 inch mark. Do not single space long quotations.

The Works Cited or Bibliography section is also double-spaced. There is no additional spacing between entries. If an entry extends beyond one line, the additional lines are indented five spaces.

Punctuation:

Commas and Periods -- place commas and periods within the quotation marks unless the page citation intervenes.

Semicolons and Colons -- both semicolons and colons go outside the quotation marks.

Question Marks and Exclamation Marks -- when either mark comes at the end of a quotation, keep it inside the quotation. When possible, introduce the reference to author and page number in the text.

The philosopher Thompson (16) asks: "How should we order our lives?"

Single Quotation Marks -- when a quotation appears within another quotation, use single quotations to mark the shorter one. Should a quotation appear also within the shorter one, use double quotation marks for it.

Works cited page/bibliography:

Book Order (#s 1,3, and 8 are required; the rest as needed):

1. Author
2. Chapter or part of book
3. Title
4. Editor, translator, or compiler
5. Edition
6. Name of the series
7. Number of volumes
8. Place. publisher, date
9. Volume number of this book
10. Page numbers

Periodical Order:

1. Author
2. Title
3. Name of the periodical
4. Volume, issue, year, and page numbers (journal)
5. Specific date, year, page numbers

FORMAT

Book (one author):

Kissinger, Henry. The White House Years. Boston: Little, 1979.

Book (two authors):

Hodge, Robert, and David Tripp. Children and Television: A Semiotic Approach. Stanford UP, 1986.

Book (three authors):

Chenity, W. Carole, Joyce Takano Stone, and Sally A. Salisbury. Clinical Gerontological Nursing: A Guide to Advanced Practice. Philadelphia: Saunders, 1991.

Book (more than three authors):

Lewis, Laurel J., et al. Linear Systems Analysis. New York: McGraw, 1969.

Books with multi-volumes:

Show the number of volume with this particular title, if more than one, in Arabic numerals (vol.3, no. 3 or simply 3) followed by a period.

Brown, J.R., and Bernard Harris Restoration Theatre. Stratford-upon-Avon Studies 6. London: Arnold, 1965.

Bible:

The Bible. [denotes King James Version]
The Bible. New American Standard Version.

Classical Works:

Homer. The Iliad. Trans. Richmond Lattimore. Chicago: U of Chicago P, 1951.

Encyclopedias (well-known encyclopedias need only edition date, but less familiar works need a full citation):

Dickinson, Robert E. "Norman Conquest." The World Book Encyclopedia. 1976 ed.

Edition:

1. Note any edition beyond the first (edition is listed after the title, before publisher)
2. Indicate that the work has been prepared by an editor, not the original author:

Melville, Herman. Moby Dick. Ed. with Intro. by Alfred Kazin. Riverside ed. Boston: Houghton, 1956.

Editor:

List the editor first only if the in-text citation refers to the work of the editor (notes, introduction).

Anthology or Collection (component part):

Updike, John. "A & P." Fiction 100. Ed. James H. Pickering. 4th ed. New York: Macmillan, 1982.

Journal:

Spade, Joan Z. "Occupational Structure and Men's and Women's Parental Values." Journal of Family Issues 12 (1991) : 343-61.

Magazine (weekly):

Bull, Chris. "Citing the Bible: Federal Judge OK's Ban on Marriage." The Advocate 11 Feb. 1992: 20.

Newspaper article:

"In More Marriages, 'I Do' vs. 'I Did.'" New York Times 29 Aug. 1991: C11.

Art Work:

Wyeth, Andrew. Hay Ledge. [1957] Illustrated in The Art of Andrew Wyeth. Ed. Wanda M. Corn. San Francisco: The Fine Arts Museum, 1973. 31.

Computer Data-Bases:

Write an entry for material obtained from a computer service like other references to printed materials, but add a reference to the service, the file, or the accession number.

Allentuck, Marcia. "Leigh Hunt and Shelley: A New Letter." Keats-Shelley Journal 33 (1984): 50. Dialog file 71, item 842847-3804.

Information Services (ERIC, etc.):

Hansen, Tom. "Reclaiming the Body: Teaching Modern Poetry by Ignoring Meaning." ERIC, 1990. ED 329 992.

Interview (unpublished):

Babb, W. Sherrill. President, Philadelphia College of Bible. Interview. 1 Sept. 1993.

Letter (personal):

Smith, Thomas. Letter to the author. 1 Sept. 1993.

Film:

Robin Hood: Prince of Thieves. Warner Bros., 1991.

Musical Composition:

See instructor for details here.

Grading

Because your writing is both a means of learning and an indication or progress, your instructors will carefully read and comment upon your papers. Wise students utilize every evaluative comment.

So that you may better interpret your grades, the following descriptions suggest some of the criteria that have been adopted by the Humanities faculty and are customarily applied to your papers. They should not be interpreted mechanically, for the characteristics blend into one another in your writing, but they may nevertheless indicate some of the things your instructors will be looking for.

Grade	Description
SUPERIOR (A) VERY GOOD (B)	Main idea (thesis) is clearly stated and concretely supported. Paper is developed logically and has smooth transitions. Sentences are varied, forceful, and economical. Diction is fresh, precise, idiomatic, and free of cliches. Grammar, punctuation, and spelling are standard. "A" papers are more original and interesting than "B" papers.
AVERAGE (C)	Main idea is fairly clear, but not totally developed; occasional irrelevancies appear, and sometimes inappropriate emphases. Paragraphs are generally unified; transitions are usually appropriate. Sentences are correctly constructed, but lack distinction. Language is clear and reasonably free of cliches. There may be occasional problems in grammar, punctuation, and spelling.
UNACCEPTABLE (D or F)	Main idea is confused or is unsupported with sufficient detail. Development is inadequate or not attempted. Paragraphs are poorly constructed; transitions are unclear. Sentences are confused, incomplete, or monotonous. Diction is vague and sometimes nonstandard. Grammar, punctuation, and spelling are poor. The paper that receives a "D" will seem to have something to say, while the failing paper will not.

Outlining

1. Each division in your outline must have a written description.

2. This description must adequately cover the points that are included in its subdivisions.

3. Learn to make descriptive titles or statements brief. Try to use no more than six words in main headings.

4. Make sure that your descriptions are parallel. That is, do not mix phrases with complete sentences or other grammatical units when referring to points of equal importance. The second point below is obviously not parallel with the others:

   I. The depth of God's love
   II. God's love is wide
   III. The duration of God's love

5. Use a consistent hierarchical arrangement in assigning numbers and letters to the divisions in your outline. One of the most widely accepted systems is represented by the following:

   I.
   II.

      A.
      B.

         1.
         2.

            a.
            b.

               (1)
               (2)

                  (a)
                  (b)

6. Avoid having too many main divisions. Two to five are usually sufficient for a given passage. If you have more, perhaps some need to be combined under a single main heading.

7. No heading can have fewer than two subdivisions. Having only one simply duplicates the larger heading.

8. Every division must have a number or letter to show its proper relation to the rest of the outline.

9. For more information on outlining, see Writing Research Papers.

PRESENTATION SKILLS CHECKLIST
(Written Assignments)

YES	NO	
		Content
[ ]	[ ]	1. Introduction. Does it attract attention and clearly introduce the topic?
[ ]	[ ]	2. Organization. Is the paper well-outlined and are the main points logical in their order?
[ ]	[ ]	3. Clarity of subject. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. College-level. Is the paper more than a listing of facts and figures?
		Research
[ ]	[ ]	1. Quality of material. Did I examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly or incomplete? Are the sources primary or secondary?
[ ]	[ ]	2. Quantity of material. Is there an adequate amount of sources?
[ ]	[ ]	3. Analysis of material. Was my research comprehensive and complete? Am I able to distinguish between facts and opinions?
[ ]	[ ]	4. Variety of viewpoints. Did I present opposing viewpoints?
[ ]	[ ]	5. Application of sources. Can I apply the facts, ideas, and opinions that I gathered to my topic?
		Format
[ ]	[ ]	1. Appearance. Is the paper free of wrinkles and is the print dark enough? Is it easy to read?
[ ]	[ ]	2. Follows guidelines. Does the paper follow the MLA and PCB guidelines?
		Grammar
[ ]	[ ]	1. Sentence structure. Are the sentences clear and consistent? Can some of the sentences be combined or divided?
[ ]	[ ]	2. Grammar. Was I consistent in my tenses and use of pronouns?
[ ]	[ ]	3. Punctuation. Was I careful in the use of commas, periods, and quotation marks?
[ ]	[ ]	4. Spelling. Did I doublecheck my spelling with a dictionary, friend, or computer?
[ ]	[ ]	5. Word choice. Did I use vocabulary that effectively communicates the facts, my ideas, and conclusions? Did I use a thesaurus to find synonyms?

Oral Presentations

Some of your work at Philadelphia College of Bible will include opportunities to speak on a particular topic. It is important to realize the following:

1. Today's world is highly visual.
2. Communication skills are lacking around the world, especially within Christian organizations.
3. Individuals that want to be Christian leaders need to not only be able to communicate in writing what they want to accomplish, they also need to do it effectively by making oral presentations with visual aids and handouts.

It is also important to utilize resources within the audiovisual world. Ingenuity and artistry enhance any presentation of ideas to others. It may be helpful to speak with the director of media services or other teachers in the communications area to get some ideas.

The content of an oral presentation may be similar to a written paper or project, but the method varies with the effective use of verbal and nonverbal communication. Visual aids and handouts must be designed to support the oral presentation and not distract from the main ideas and the conclusion.

There are five major areas of concern that must be addressed prior to the actual giving of an oral presentation. They include

1. Content. The oral presentation must include an exciting introduction, be well-organized, clearly present the subject, provide valid support for the topic, and be on a college-level.

2. Method. The speaker must be well-prepared, keep everyone's attention, be creative, and consistently reinforce the main idea. The speaker should move smoothly from one point to another, establish eye contact throughout the presentation, use the voice to accentuate major points, and use posture (nonverbal communication) that does not distract from the presentation.

3. Visual aids. Visual aids should appear neat, reinforce the main ideas, be large enough to see by viewers in the back of the room, and enhance the overall presentation.

4. Handouts. Handouts should be considered seriously. Outlines can be given at the beginning of the presentation for notetaking while more detailed materials could be given to the audience following the presentation to support the subject.

5. Overall effectiveness. The oral presentation needs to be interesting and stay within time constraints. The speaker often may need to adapt the presentation to the audience, but this most effective if it can be done ahead of time. Most of all, the presentation needs to be persuasive. The speaker who is convinced of the importance of a topic must communicate that concern with arguments, visual aids, and a voice that reinforces that feeling.

PRESENTATION SKILLS CHECKLIST
(Oral Presentations)

YES	NO	
		Content
[ ]	[ ]	1. Introduction. Does it attract attention and clearly introduce the topic?
[ ]	[ ]	2. Organization. Is the speech well-outlined and logical in order?
[ ]	[ ]	3. Clarity of subject. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. Main points supported. Do I have at least two facts or opinions for each major point?
[ ]	[ ]	5. College-level. Is the speech more than a listing of facts and figures?
		Method
[ ]	[ ]	1. Well-prepared. Have I practiced enough and have I done enough research on the topic?
[ ]	[ ]	2. Kept class attention. What am going to do to really keep everyone focused upon me and my topic?
[ ]	[ ]	3. Creative. Am I doing something different or unique in my presentation?
[ ]	[ ]	4. Reinforced main idea. What am I doing in the introduction and the conclusion to remind people of my main idea? Are all of my main points supportive of the main idea?
[ ]	[ ]	5. Flowed well. Do I have good transition sentences?
[ ]	[ ]	6. Eye contact. Am I going to try to look every audience member in the eye throughout my presentation?
[ ]	[ ]	7. Voice. Am I going to vary the volume? Should I avoid "ums" and "uhs"?
[ ]	[ ]	8. Nonverbal communication. Should I sit down or stand up? Should I use my hands? What about my posture?
		Visual Aids
[ ]	[ ]	1. Appearance. Is the print large enough? Is it easy to read?
[ ]	[ ]	2. Effectiveness. Do the visual aids support the main ideas?
		Handouts
[ ]	[ ]	1. Appearance. Are they clear and easy to follow?
[ ]	[ ]	2. Effectiveness. Do they support or reinforce my presentation?
		Overall Effectiveness
[ ]	[ ]	1. Interesting. Is it an interesting topic and am I excited about it?
[ ]	[ ]	2. Within time limit. Have I practiced it with a stopwatch?
[ ]	[ ]	3. Adapted to audience. Am I communicating with my audience?
[ ]	[ ]	4. Persuasive. What can I do to persuade the audience to agree with me?

WAYS TO GET HELP

The WRITING LAB

Because the College desires to help you improve your writing skills, it has instituted the Writing Lab. If you write a paper that does not meet the standards listed below, it will be returned to you to be rewritten and resubmitted within one week from the day that it was returned to you.

Your written assignments must have:

-clearly defined ideas with supporting evidence
-unified paragraphs
-no sentence fragments
-no more than three spelling errors per page
-no more than three grammatical/usage errors per page
-no more than three punctuation errors per page

If a professor specifies that a paper is to be formal, it must adhere to the standards stipulated in Writing Research Papers.

If your paper is unacceptable, you will be asked to go to the Writing Lab for assistance in improving that paper.

* The Writing Lab will also offer assistance before a paper has been submitted to a professor, for any writing concern (grammar, usage, organization, development, brainstorming, etc.).

The Masland Learning Resource Center and libraries

The libraries of Philadelphia College of Bible contain a significant amount of resources that will assist you in the preparation of your written assignments or your oral presentations. In addition to the resources, it is important to note that these libraries are staffed by professional librarians and student staff who are eager and willing to assist you in your research projects. Utilize them to your advantage.

AN ANNOTATED BIBLIOGRAPHY

Badke, William B. The Survivor's Guide to Library Research. Grand Rapids, Michigan: Zondervan Publishing House, 1990. A complete, concise, and humorous guide to the process of using the library and the writing of research papers.

Hodges, John C. Harbrace College Handbook. 11th ed. New York: Harcourt Brace Jovanovich, 1990. A reasonably comprehensive handbook of grammar and usage. You will need this book, or a similar handbook, so that when you are in doubt you may look up the answers to your questions.

Lester, James D. Writing Research Papers: A Complete Guide. 7th ed. Glenview, Illinois: Scott, Foresman and Company, 1993. An excellent and comprehensive guide to all kinds of research writing. Indispensable for the student who has a solid interest in research.

MLA Handbook for Writers of Research Papers, Theses, and Dissertations. 3rd ed. New York: Modern Language Association, 1988. Required text in rhetoric courses and authoritative handbook on matters of form in college writing.

Trimmer, Joseph F. Writing With A Purpose. 10th ed. Boston: Houghton Mifflin Company, 1992.

Webster's Tenth Collegiate Dictionary. Springfield, Mass.: G. & C. Merriam, 1993. Make sure you have this dictionary or one that is comparable in size and has a recent publication date.

Appendix E

Information Literacy Handbook

A Guide to INFORMATION LITERACY at PCB

Masland Learning Resource Center

Philadelphia College of Bible

March, 1996

Introduction

Philadelphia College of Bible is a private non-denominational college offering traditional and non-traditional programs of study. The college began in 1913 to provide an opportunity for men and women to learn more about the Bible and to train them to more effectively minister in local churches. By 1970, the college had expanded to include professional programs in music, teacher education, and social work. In 1992, the college expanded again to include a graduate school and a degree-completion program. Additional campuses are located in New Jersey and Wisconsin.

The bachelor of science in Bible degree is designed primarily for high school graduates and is intended to build a foundation of religious instruction for graduate study and ministry opportunities. The program is designed to give the student the skills necessary to function in today's world with all of its demands for effective utilization and communication of information. The goals of this program have been repeated in the graduate school, the degree-completion program, and the two programs located in New Jersey and Wisconsin.

Nature of the Problem

One of the many requirements for students studying at Philadelphia College of Bible is the writing of papers. These papers or reports are designed to develop research skills, sharpen writing skills, encourage critical thinking, promote problem-solving skills, and provide for the enhancement of oral and written presentation skills. These skills are the classic components of what is defined as information literacy. The skills needed for each of the papers assigned by individual professors is taught and reinforced throughout the curriculum.

The problem is that most students enter college without fully developed information literacy skills. They struggle in their preparation and production of written assignments. The freshman English Composition course, research methods courses in music, social work, and the graduate school, and library orientation sessions are all designed to further develop students' skills in information literacy skills. Assignments are given by instructors that demand constant improvement in research skills, encourage critical thinking skills, and provide for opportunities to further hone oral and written presentation skills.

Definition

An information literacy program is defined as the staff, faculty, and administration of the college working together to increase students' awareness of information sources, train students to critically assess the information that is gathered, instruct students on how to efficiently access information, and encourage students to effectively manipulate and communicate what they have learned to people in the world around them.

Information literacy is more than simply teaching library skills. It is a process that enables students to effectively access appropriate information and to apply information to problems found in life. Students need the ability to understand what information is, when they need to access it, how and where to access it, and how to use it. The 1989 Final Report of the American Library Association Presidential Committee on Information Literacy was written in response to A Nation at Risk, a report that defined information literacy and its impact upon individuals. It states that ". . . a person must be able to recognize when information is needed and

have the ability to locate, evaluate, and use effectively the needed information. Ultimately, information-literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in a way that others can learn from them" (p. 1).

Students should be expected to efficiently access information, critically evaluate it, and effectively manipulate and communicate knowledge to others. Some scholars believe that information-literate students are able to understand the importance of information, to articulate and focus their information needs, to recognize where to find access to information, to develop strategies for research, to evaluate, manipulate, and analyze the information that was gathered, to synthesize, process, and report their results, and to continue to develop their information literacy skills. The concepts included within an information literacy program became a policy on information literacy that was adopted at Cleveland State University. There the librarians and faculty worked together to incorporate the concepts of information literacy into the curriculum.

Overview

Information literacy is a term that has become very popular among librarians and information specialists. Paul G. Zurkowski is credited with first using the term in 1974 in his work on information service.

Many information literacy proponents observe that the roles of libraries must change in this information age. They suggest that libraries can more effectively grapple with the information challenges of the future with the cooperation of concerned faculty. In the case of college libraries, they should be empowered with the faculty to help institutions of higher learning achieve their goals and objectives.

Other scholars insist that librarians must be an integral part of what is defined as the information literacy chain. One of the steps in the information literacy chain is the ability to interpret, organize, and synthesize information. Another step is the ability to use and communicate information, which includes the writing of papers and the presentation of oral reports. Librarians and faculty members want to see PCB students graduate with the necessary information literacy skills to function in a world that desperately needs people who can efficiently conduct research, skillfully synthesize the information they have gathered, and effectively communicate what they have learned to people around them.

2 Timothy 3:16-17 tells us that the Word of God was given to us to be useful in our lives and to equip us for whatever ministry God wants us to work in. It is essential that all PCB students learn how to research the truths of God's Word, analyze the guidance and principles given throughout its pages, make applications as necessary, and then effectively communicate God's truth to the citizens of this world. Information literacy skills will maximize the potential that each student will have wherever they go following graduation.

How to Measure Information Literacy

Many scholars express some misgivings on how to measure information literacy. Some simply assume that information literacy can be measured through pre- and post-testing. Surveys can also be administered to measure the effectiveness of the program or a Senior Project can be assigned that would require the use of information literacy skills. Self-assessment is highly suggested, but it must be admitted that this type of evaluation cannot be totally reliable.

The struggle to define outcomes was revealed in the efforts of a blue ribbon commission for the Minnesota State University System. Examination scores at the end of a block of instruction on research skills led to so much criticism that they quickly adopted pre- and post-measures. Even then some educators expressed some dissatisfaction with the giving of examinations, when the students needed to demonstrate the application of information to real world situations. It was recommended that performance indicators be adopted that would measure both skill and knowledge, such as participation in field experiences, community service projects, or diverse learning opportunities.

Student Writing Guide

The information literacy handbook became a major revision of the current writing guide and includes sections on basic research skills, critical thinking skills, and presentation skills. The Humanities professors collaborated with the library staff to produce a handbook which clearly presented the basic concepts of information literacy.

For students, faculty, and friends of Philadelphia College of Bible, the following checklists will assist in measuring the degree of competency in information literacy skills. They include research skills, critical thinking skills, and and both oral and written presentation skills.

RESEARCH SKILLS CHECKLIST

YES	NO	
		Reference Section
[ ]	[ ]	1. Dictionaries and encyclopedias. Did I start here first in my research on my assignment?
[ ]	[ ]	2. Dictionaries and encyclopedias. Did I find out more about my topic by looking for similar terms and related subjects?
[ ]	[ ]	3. Bibliography. Did I find a listing of authors, titles, and related resources listed in the encyclopedia articles?
		Main Circulating Collection
[ ]	[ ]	1. Catalog. Did I look here after doing my research in the reference collection?
[ ]	[ ]	2. Catalog. Did I use the listing of authors, titles, and related subject headings in my search of the catalog?
		Periodical Collection
[ ]	[ ]	1. Indexes. Did I search the periodical indexes after gathering information in the reference collection?
[ ]	[ ]	2. Indexes. Did I use the subject headings that I found in the dictionaries and encyclopedias?
[ ]	[ ]	3. Citations. Did I write down the complete citation for the articles that I found?
[ ]	[ ]	4. Articles. Did I make photocopies of the articles that I needed rather than tearing them out of the periodical?
		Additional Considerations
[ ]	[ ]	1. Other resources. Did I check to see if I could gather information from other organizations or people outside the library?
[ ]	[ ]	2. Librarians. Did I check with the library staff to see if they could help me?

CRITICAL THINKING SKILLS CHECKLIST

YES	NO	
		Knowledge
[ ]	[ ]	1. Information. Did I survey my information and clarify any unfamiliar terms?
[ ]	[ ]	2. Facts. Did I gain an increased knowledge and understanding of my topic?
		Comprehension
[ ]	[ ]	1. Quality. Did I examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly or incomplete?
[ ]	[ ]	2. Sources. Are the sources primary or secondary?
		Application
[ ]	[ ]	1. Support. Do the expert opinions gathered support or argue against my conclusion?
[ ]	[ ]	2. Apply. Can I apply the facts, ideas, and opinions that I gathered to my topic?
		Analysis
[ ]	[ ]	1. Overview. Was my research comprehensive and complete?
[ ]	[ ]	2. Differences. Am I able to distinguish between facts and opinions?
		Synthesis
[ ]	[ ]	1. Process. Was I able to work with pieces and parts from my research and combine them into one whole idea?
[ ]	[ ]	2. Product. Is my project a result of my work and not the simple compilation of numerous facts and ideas?
		Evaluation
[ ]	[ ]	1. Comparison. How does my conclusion compare with recognized experts in the subject area?
[ ]	[ ]	2. Conclusions. Is what I concluded accurate, consistent, and logical?

PRESENTATION SKILLS CHECKLIST
(Written Assignments)

YES	NO	
		Content
[ ]	[ ]	1. Introduction. Does it attract attention and clearly introduce the topic?
[ ]	[ ]	2. Organization. Is the paper well-outlined and are the main points logical in their order?
[ ]	[ ]	3. Clarity of subject. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. College-level. Is the paper more than a listing of facts and figures?
		Research
[ ]	[ ]	1. Quality of material. Did I examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly or incomplete? Are the sources primary or secondary?
[ ]	[ ]	2. Quantity of material. Is there an adequate amount of sources?
[ ]	[ ]	3. Analysis of material. Was my research comprehensive and complete? Am I able to distinguish between facts and opinions?
[ ]	[ ]	4. Variety of viewpoints. Did I present opposing viewpoints?
[ ]	[ ]	5. Application of sources. Can I apply the facts, ideas, and opinions that I gathered to my topic?
		Format
[ ]	[ ]	1. Appearance. Is the paper free of wrinkles and is the print dark enough? Is it easy to read?
[ ]	[ ]	2. Follows guidelines. Does the paper follow the MLA and PCB guidelines?
		Grammar
[ ]	[ ]	1. Sentence structure. Are the sentences clear and consistent? Can some of the sentences be combined or divided?
[ ]	[ ]	2. Grammar. Was I consistent in my tenses and use of pronouns?
[ ]	[ ]	3. Punctuation. Was I careful in the use of commas, periods, and quotation marks?
[ ]	[ ]	4. Spelling. Did I doublecheck my spelling with a dictionary, friend, or computer?
[ ]	[ ]	5. Word choice. Did I use vocabulary that effectively communicates the facts, my ideas, and conclusions? Did I use a thesaurus to find synonyms?

PRESENTATION SKILLS CHECKLIST
(Oral Presentations)

YES	NO	
		Content
[ ]	[ ]	1. Introduction. Does it attract attention and clearly introduce the topic?
[ ]	[ ]	2. Organization. Is the speech well-outlined and logical in order?
[ ]	[ ]	3. Clarity of subject. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. Main points supported. Do I have at least two facts or opinions for each major point?
[ ]	[ ]	5. College-level. Is the speech more than a listing of facts and figures?
		Method
[ ]	[ ]	1. Well-prepared. Have I practiced enough and have I done enough research on the topic?
[ ]	[ ]	2. Kept class attention. What am going to do to really keep everyone focused upon me and my topic?
[ ]	[ ]	3. Creative. Am I doing something different or unique in my presentation?
[ ]	[ ]	4. Reinforced main idea. What am I doing in the introduction and the conclusion to remind people of my main idea? Are all of my main points supportive of the main idea?
[ ]	[ ]	5. Flowed well. Do I have good transition sentences?
[ ]	[ ]	6. Eye contact. Am I going to try to look every audience member in the eye throughout my presentation?
[ ]	[ ]	7. Voice. Am I going to vary the volume? Should I avoid "ums" and "uhs"?
[ ]	[ ]	8. Nonverbal communication. Should I sit down or stand up? Should I use my hands? What about my posture?
		Visual Aids
[ ]	[ ]	1. Appearance. Is the print large enough? Is it easy to read?
[ ]	[ ]	2. Effectiveness. Do the visual aids support the main ideas?
		Handouts
[ ]	[ ]	1. Appearance. Are they clear and easy to follow?
[ ]	[ ]	2. Effectiveness. Do they support or reinforce my presentation?
		Overall Effectiveness
[ ]	[ ]	1. Interesting. Is it an interesting topic and am I excited about it?
[ ]	[ ]	2. Within time limit. Have I practiced it with a stopwatch?
[ ]	[ ]	3. Adapted to audience. Am I communicating with my audience?
[ ]	[ ]	4. Persuasive. What can I do to persuade the audience to agree with me?

Implications of Information Literacy

The exponential growth in information resources and the new demands of the information age have put increasing demands upon faculty and students to access appropriate information quickly, process that information with critical thinking skills, and to communicate both verbally and in writing a product that is practical, interesting, and meaningful. The development of an information literacy program for the degree completion program has begun to address the informational needs of the students and will positively impact their production of papers and oral reports. Graduates will learn lifelong skills that will enhance their chances for survival in this information age.

The development of an information literacy program will be a significant asset for faculty members. Expectations for students will be raised as students will be required to demonstrate proficiency in research skills. Improvement will be reflected in the quality of content in course assignments. Faculty members will also professionally demonstrate growth in information skills in their own research and preparation for classroom instruction.

It is absolutely vital in today's rapidly changing world that students at Philadelphia College of Bible develop the skills necessary to handle the challenges of tomorrow. The staff, faculty, and administration of PCB are committed to increasing each student's awareness of information sources, to train students on how to critically assess the information that is gathered, and to encourage students to effectively manipulate and communicate what has been learned to people in the world around them. That is what information literacy is all about at Philadelphia College of Bible.

Appendix F

Faculty Workshop Presentation Outline

Dear Dr. Willis,

We are interested in presenting a faculty development workshop in the Fall 1996 semester on the concept of an information literacy program and the role that will play in the future of education at Philadelphia College of Bible, especially in the traditional undergraduate program. This workshop will take two hours and will be facilitated by Professors Jean Minto, Renee Younger Mayk, and Lyn Brown. It will serve as a follow-up to the workshop on writing which took place in the Fall 1995 semester. The topics covered will include:

Topic	Presenter	Style	Time
Review of writing survey results	Minto	Oral presentation	20 minutes
Information literacy	Brown	Audio-visual presentation	20 minutes
Research skills instruction	Brown	Audio-visual presentation	20 minutes
Critical thinking skills	Minto	Small group discussion	25 minutes
Presentation skills	Minto/Mayk	Oral presentation	30 minutes
Review/questions	Willis	Oral presentation	5 minutes

The individual topic areas will be developed throughout the summer and will be ready for your review prior to the scheduling of the workshop. Several meetings are planned with the three main facilitators this summer.

The presentation of an information literacy program will end up being a significant asset for faculty members. It will be conducted in a non-threatening manner, with many suggestions and examples from other colleges and universities. It is our desire to see expectations for students be raised so that they are required to demonstrate proficiency in research skills, critical-thinking skills, and presentation skills. Improvement will be reflected in the quality of content in course assignments. Faculty members will also learn to professionally demonstrate growth in information skills in their own research and preparation for classroom instruction with regularly scheduled workshops conducted by library staff on the new technology available today.

As you are well aware, it is absolutely vital in today's rapidly changing world that students at Philadelphia College of Bible develop the skills necessary to handle the challenges of tomorrow. The staff, faculty, and administration of PCB are committed to increasing each student's awareness of information sources, to train students on how to critically assess the

information that is gathered, and to encourage students to effectively manipulate and communicate what has been learned to people in the world around them. That is what information literacy should be about at Philadelphia College of Bible.

May we have your approval of this idea and could you give us the time and date for this presentation? Thank you.

Lyn S. Brown
Director of Learning Resources

Appendix G

Information Literacy Evaluation Packet

An Evaluation Packet for INFORMATION LITERACY at PCB

Masland Learning Resource Center

Philadelphia College of Bible

April, 1996

How to Evaluate Our Information Literacy Program

Many scholars express some misgivings on how to measure information literacy. Some simply assume that information literacy can be measured through pre- and post-testing. Surveys can also be administered to measure the effectiveness of the program or a Senior Project can be assigned that would require the use of information literacy skills. Self-assessment is highly suggested, but it must be admitted that this type of evaluation cannot be totally reliable.

The struggle to define outcomes was revealed in the efforts of a blue ribbon commission for the Minnesota State University System. Examination scores at the end of a block of instruction on research skills led to so much criticism that they quickly adopted pre- and post-measures. Even then some educators expressed some dissatisfaction with the giving of examinations, when the students needed to demonstrate the application of information to real world situations. It was recommended that performance indicators be adopted that would measure both skill and knowledge, such as participation in field experiences, community service projects, or diverse learning opportunities.

At PCB, we would like to use the following criteria to evaluate the extent information literacy skills are being encouraged in the writing of syllabi and the assignment of research papers and reports. An evaluation schedule and guidelines are also given to provide direction for the faculty library advisory committee as it participates in the evaluation process.

Evaluation Criteria for Syllabi and Assignments

Research Skills

YES NO

[ ] [ ] 1. Are students encouraged or required to use the library to complete any of their assignments for the course?
[ ] [ ] 2. Are students instructed to start with dictionaries and encyclopedias to get an overview of their topic and to look for similar terms and related subjects?
[ ] [ ] 3. Are students made aware that a listing of authors, titles, and related resources may be listed in encyclopedia articles?
[ ] [ ] 4. Are students able to search for authors, titles, and related subject headings in the catalog?
[ ] [ ] 5. Are students required to use the periodical indexes after gathering information in the reference collection?
[ ] [ ] 6. Are students encouraged to check for information from other organizations or people outside the library?
[ ] [ ] 7. Are students told to ask for assistance from the library staff if they need help?

Critical Thinking Skills

[ ] [ ] 1. Are students required to survey their information and clarify any unfamiliar terms?
[ ] [ ] 2. Are students going to gain an increased knowledge and understanding of their topic?
[ ] [ ] 3. Are students expected to examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly or incomplete?
[ ] [ ] 4. Are the sources to be used by the students primary rather than secondary?
[ ] [ ] 5. Are the assignments requiring the gathering of expert opinions that support or argue against any conclusions?
[ ] [ ] 6. Must the students apply the facts, ideas, and opinions that were gathered?
[ ] [ ] 7. Are students given the opportunity to demonstrate that their research was comprehensive and complete?
[ ] [ ] 8. Are students required to demonstrate the difference between facts and opinions?
[ ] [ ] 9. Are students instructed on how to work with pieces and parts from their research and to combine them into one whole idea?
[ ] [ ] 10. Are student assignments and reports a result of critical thinking and not the simple compilation of numerous facts and ideas?
[ ] [ ] 11. Are students asked to compare their conclusions with recognized experts in the subject area?
[ ] [ ] 12. Are students told that in their assignments they must have conclusions that are accurate, consistent, and logical?

Evaluation Criteria for Student Presentations

Written Assignments

YES	NO	
[ ]	[ ]	1. Does the introduction attract attention and clearly introduce the topic?
[ ]	[ ]	2. Is the paper well-outlined and are the main points logical in their order?
[ ]	[ ]	3. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. Is the paper more than a listing of facts and figures?
[ ]	[ ]	5. Does the paper examine the credentials of the writers presenting the facts and their opinions? Is the presentation scholarly? Are the sources primary rather than secondary?
[ ]	[ ]	6. Is there an adequate amount of sources?
[ ]	[ ]	7. Was the research comprehensive and complete? Can you distinguish between facts and opinions?
[ ]	[ ]	8. Did they present opposing viewpoints?
[ ]	[ ]	9. Did the student demonstrate the ability to apply the facts, ideas, and opinions that were gathered for the topic?
[ ]	[ ]	10. Does the paper follow the MLA and PCB guidelines?
[ ]	[ ]	11. Are the sentences clear and consistent? Can some of the sentences be combined or divided?
[ ]	[ ]	12. Was the student consistent in tenses and use of pronouns?
[ ]	[ ]	13. Was the student careful in the use of commas, periods, and quotation marks?
[ ]	[ ]	14. Did the student doublecheck their spelling with a dictionary, friend, or computer?
[ ]	[ ]	15. Did the student use vocabulary that effectively communicated the facts, ideas, and conclusions?

Oral Presentations

YES	NO	
[ ]	[ ]	1. Does the introduction attract attention and clearly introduce the topic?
[ ]	[ ]	2. Is the speech well-outlined and logical in order?
[ ]	[ ]	3. Is the topic and are the main ideas clearly presented?
[ ]	[ ]	4. Are the main points supported with at least two facts or opinions for each major point?
[ ]	[ ]	5. Is the speech more than a listing of facts and figures?
[ ]	[ ]	6. Did the student practice enough and demonstrate an adequate amount of research on the topic?
[ ]	[ ]	7. Did the student keep everyone focused upon themselves and their topic?
[ ]	[ ]	8. Did they do something different or unique in their presentation?
[ ]	[ ]	9. What was done in the introduction and in the conclusion to remind people of their main idea? Are all of the main points supportive of the main idea?
[ ]	[ ]	10. Did the oral presentation flow well with good transition sentences?
[ ]	[ ]	11. Did the student establish and keep good eye contact?
[ ]	[ ]	12. Did the student effectively use their voice by varying the volume and avoiding "ums" and "uhs"?
[ ]	[ ]	13. Was the student's nonverbal communication an asset or a detriment to the presentation?
[ ]	[ ]	14. Did the student use visual aids that were neatly done and were effective? Did the visual aids support the main ideas?
[ ]	[ ]	15. Did the student use handouts that supported or reinforced their presentation?

Evaluation Schedule

The evaluation process should be conducted annually by the faculty library advisory committee. The following schedule can be used to ensure the initiation, implementation, and completion of the process.

January:	Library Committee meeting Selection of courses to be evaluated Assignment of committee members to courses to be evaluated Reminder of guidelines and procedures to follow
February:	Evaluation of specific courses
March:	Library Committee meeting Individual reports collected and combined
April:	Written and oral presentation of evaluations to Academic Affairs Committee and Academic Dean
May:	Presentation of evaluations by the Academic Affairs Committee to the Faculty with recommendations
September:	Review of status of information literacy program at PCB by library director and Library Committee

Evaluation Guidelines and Procedures

The library director and members of the faculty library advisory committee are responsible to the academic dean for the evaluation of the information literacy program on a semi-annual basis. The evaluation schedule should serve as an outline for pursuing excellence in this program by regularly involving the faculty in examining critically the progress the college is making in teaching students how to conduct research, think critically, and to present clearly their thoughts and ideas to others in the world about them.

The evaluation of the information literacy program will end up being a significant asset for faculty members. It should be conducted in a non-threatening manner, with many suggestions and examples from other colleges and universities. It is our desire to see expectations for students be raised so that they are required to demonstrate proficiency in research skills, critical-thinking skills, and presentation skills. Improvement will be reflected in the quality of content in course assignments. Faculty members should also learn to professionally demonstrate growth in information skills in their own research and preparation for classroom instruction with regularly scheduled workshops conducted by library staff on the new technology available today.

The library director is ultimately responsible to ensure the regular evaluation of the information literacy program. We should enlist the help of students and administrators to not only gather the information necessary to determine the progress of the program, but to also improve the evaluation process. Division chairs will need to be asked to give their guidance and recommendations regarding the choices of courses to examine and the direction that the faculty library advisory committee should take in its evaluation process.

Our greatest concern is that we effectively instruct our students in research skills, critical thinking skills, and presentation skills. No matter what process we use or evolve to, our primary focus must be upon the vision that we have for information literacy here at Philadelphia College of Bible.

BIOGRAPHICAL SKETCH OF STUDENT

Lyn Stephen Brown has worked for five years as the Director of Learning Resources at Philadelphia College of Bible in Langhorne, Pennsylvania. He previously served as the Director of Library Services for five years at Washington Bible College and Capital Bible Seminary in Lanham, Maryland. Prior to that he was a Baptist minister for over 10 years in the Seattle area.

Brown is a graduate of Western Baptist College in Salem, Oregon, where he earned a bachelor of science degree in Bible in 1975. He graduated with a M.Div. degree in New Testament Studies from Northwest Baptist Seminary in Tacoma, Washington, in 1981, and went on to earn a Ph.D. in Church Administration from the California Graduate School of Theology in Glendale, California, in 1983. In 1985, he graduated with a M.Lib. degree in Library Administration from the University of Washington.

Brown also serves as a chaplain with the Pennsylvania Army National Guard and resides in Newtown, Pennsylvania. He is married to Kathryn Reiter Brown, with whom he has two children, Christopher and Deanna.

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