



**INFORMATION SKILLS ASSESSMENT OF FRESHMEN STUDENTS:
BASIS FOR LIBRARY INFORMATION
LITERACY DEVELOPMENT**

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Abstract:

This study sought to assess the information skills of Tagoloan Community College freshmen students as basis for an information literacy program. Students were asked questions about their Information literacy skills like knowing, accessing, evaluating, using and citing information. The participants of this study were 173 Freshmen College Students enrolled in Purposive Communication Classes during the first semester of School Year 2019-2020. Transferees were excluded from the study. The study used purposive sampling method since all the Purposive Communication Sections were involved in the study. Correlational research design was used in this study. The Association of College and Research Libraries information literacy skills instrument was used to determine their information skills and the Pearson Product Moment Correlation (r) was used to determine the relationships of the variables between the participants' information skills, frequency of library visits and their Purposive Communication grades. The study found that the participants' achievement in Purposive Communication was significantly related with their skills in evaluating and citing information and their frequency of library visits was also significantly related to their information literacy skills except citing information. The findings of the study showed that the participants were very capable in knowing, accessing, evaluating, using and citing information. Based on the findings of the study, an Information Literacy Program for freshmen students was developed to be implemented by the library to enhance the needed skills not being taught in Purposive Communication classes.

Keywords: information skills, assessment, freshmen college students, knowing, accessing, evaluating, using and citing information.

Introduction:

Information literacy (IL) involves the competencies of knowing why and when information is needed. It incorporates the ability to locate, evaluate, and use information efficiently, effectively, and in an ethical manner. Scientific and technological advancement, the growth of digital information, the focus on lifelong learning, the demand for highly skilled workers have highlighted the need for information-related competencies. Thus, students need to be equipped with strong IL skills to be able to

succeed in their academic and future professional endeavors. They need to have a constellation of skills revolving around information research that will allow them to master content and extend their investigations, become more self-directed, and assume greater control over their own learning.

For many years, Tagoloan Community College Library has relied on the Freshmen Library Orientation to develop the skills needed by students to use library resources for research. The orientation is composed of a series of lectures about the various resources and services of the library, the rules and regulations, as found in the Student Library Handbook. However, today libraries are confronted with technological advancement, exponential growth of information, availability of information resources in a variety of formats. Moreover, high school graduates, generally are technology proficient, with exposure to various media. As such, they have varied information needs. In the light of these conditions, it is necessary to revise and improve the orientation program to include new IL skills, to further develop the critical and analytical thinking of students; hence this study is conducted.

This study would provide the administration essential information which could be used for designing and implementing a complete information literacy program. The administration's role is vital in the launching of such program in the library. In addition, the library information literacy program output would help foster closer integration between classroom activities and library services; hence the program would assist the faculty in planning well-directed activities with available library resources as well as initiating new strategies for teaching through the library within the level of students' needs, competencies, and potential.

This study sought to assess the information skills of Tagoloan Community College freshmen students as basis for an information literacy program. Specifically, it attempted to answer the following questions:

1. What is the level of achievement in Purposive Communication Class of the college freshmen?
2. What is the frequency of the college freshmen's library visit?
3. How do the participants assess their information skills considering:
 - 3.1 knowing,
 - 3.2 accessing,
 - 3.3 evaluating,
 - 3.4 using, and
 - 3.5 citing?
4. Is there a significant relationship between the participants' information skills and their achievement in Purposive Communication Class and their frequency of library visit?

5. Based on the findings of the study, what information literacy module may be designed?

Conceptual Framework:

This study assumes that students who frequently visit the library and who have higher achievement in Purposive Communication have higher information skills. This assumption is in line with what Gratch–Lindauer (2005) stated that students who use the library reflect a studious work ethic and engage in academically challenging tasks that require higher-order thinking. Additionally, the information environment is now quite complex and changing exponentially to expect students to acquire information skills without a planned information literacy program.

Furthermore, Katz (2007), also found that college freshmen information literacy skills and general academic achievement correlated significantly.

Librarians may also assume that students entering college will have mastered the basic information literacy skills given to them during their high school studies. Yet librarians have observed that students do not possess adequate information skills for some of the course work they are required to do. Students may be coming to the library frequently, but they may not necessarily know what they want when they go to the library nor do they go to the library with a specific information need.

In this information age, information is increasing at a rapid pace and it is becoming increasingly clear that students cannot learn everything they need to know in their field of study within four or five years in school. In as much as information is easily and quickly available, it does not mean that all of it is worthwhile or even true. Thus, Information literacy is essential. Students will need the skills to find, retrieve, analyze, and use information to help them cope with information explosion. The information skills will help students deal with information overload, equip them with the critical skills that allow them to apply their knowledge from the familiar environment to the unfamiliar, empower them to learn for themselves long after they leave school, and equip them for success in their careers.

Mittermeyer and Quirion (2003) observed certain shortcomings in the information research skills of students during their first year and King (2007) indicated that incoming students do not become information literate during their first year of study.

On one hand, Thirion and Pochet (2009) observed that the age of undergraduates do not show statistically significant effects on their information skills.

Being an information literate person is a prerequisite for students nowadays. With the vast amount of information increasingly available across all formats for free, there is a need to educate students in determining which and when an information is needed. Students are continuously challenged in their efforts to effectively identify and access

quality information in support of their studies. The library as a learning center plays a key role in helping students develop the necessary skills to access, locate, use and evaluate information effectively and efficiently. Knowledge of these information skills help enhance the students' academic success and may have a direct effect on their learning outcomes. Maughan (2001) and Williams and Wavell (2001) indicate in their study that information literacy, especially library usage, can impact positively not only on information handling skills but also on learning and academic achievement of undergraduate students. McDermott (2005) opined that students who do not experience anxiety and are willing to seek help from librarians will be academically more successful.

Assessment of information skills is the first step to information literacy. If the information skills of students are assessed, librarians can develop a structured information literacy initiative to ensure that students graduate with the required information skills and proficiencies. Generally, assessment of information skills is based on the five (5) standards like knowing, accessing, evaluating, using and citing information set by Association of College and Research Libraries (ACRL) the succeeding paragraphs explain these standards.

Knowing. The information literate student should be able to determine the nature and extent of the information needed. The performance indicators include articulating the need for information, identifying a variety of types and formats of potential sources for information, considering the costs and benefits of acquiring the needed information, re-evaluating the nature and extent of the information needed.

Accessing. The information literate student evaluates the information and its sources critically and incorporates selected information into his or her knowledge base and value system. The performance indicators include selecting the most appropriate investigative methods or information retrieval systems for accessing the needed information, constructing and implementing effectively designed search strategies, retrieving information online or in person using a variety of methods, refining the search strategy if necessary, and extracting, recording, and managing the information and its sources.

Evaluating. The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system. The performance indicators include summarizing the main ideas to be extracted from the information gathered, articulating and applying initial criteria for evaluating both the information and its sources, synthesizing main ideas to construct new concepts, comparing new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information. Determining

whether the new knowledge has an impact on the individual's value system and taking steps to reconcile differences, validating knowledge and interpretation of the information through discourse with other individuals, subject-area experts, and/or practitioners, and determining whether the initial query should be revised are also important considerations.

Using. The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose. The performance indicators include applying new and prior information to the planning and creating of a particular product or performance, revising the development process for the product or performance, and communicating the product or performance effectively to others

Citing. The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally. The performance indicators include understanding many of the ethical, legal and socio-economic issues surrounding information and information technology, following laws, regulations, institutional policies, and etiquette related to the access and use of information resources and acknowledging the use of information sources in communicating the product or performance.

Methods:

The participants of the study covered 173 freshmen students enrolled in Purposive Communication Class at Tagoloan College during the first semester of School Year 2019-2020. This study employed the correlational method of research. This research technique is used to relate two or more variables and allow predictions of outcomes based on causative relationships between the variables. This was deemed appropriate for this study considering that the study investigated between information skills, achievement in Purposive Communication Class and frequency of Library visits.

The questionnaire used in this study was derived from the performance indicators and outcomes that are part of the 5 ACRL standards for information literacy competency. The questionnaire was subjected to content validation by researchers and experts in the field.

To ascertain the students' information literacy skills, the means and weighted means were computed. To determine the relationships of the variables, the Pearson's Product Moment Correlation coefficient was used utilizing the Statistica program.

Discussion of Results:

1. Based on the data, most of the participants got grades ranging from 2.5 to 2.25. This means that most of the participants got grades which are “accepted and moderately good”. However, it is worth mentioning that 15.6 % or 27 of them got 2.75 described as fair and 6.4% or 11 of the college freshmen fell on the marginal level with the grades of 3.0. A number of them (21 or 12.1 %) however, got grades ranging from 2.0 described as good and 8.1 % or 14 of them got 1.75 interpreted as very good.

As a whole, the data would point to the need of coming up with intervention to improve the English proficiency of the college freshmen.

Table 1

Frequency and Percentage Distribution of Participants’ Level of Achievement in Purposive Communication Class

Grades	Description	Frequency	Percentage
1.0	Excellent	0	0
1.25	Outstanding	2	1.2
1.5	Superior	4	2.3
1.75	Very Good	14	8.1
2.0	Good	21	12.1
2.25	Moderately Good	43	24.9
2.5	Acceptable	51	29.5
2.75	Fair	27	15.6
3.0	Marginal	11	6.4
5.0	Failure	0	0
Total		173	100

2. It can be gleaned from the table that 57 or 32.9% of the participants visited the library 2-3 times a week; followed by 24.9% or 43 of them who visited the library daily. However, it can be seen from the table that a good number of them visit the library weekly and 13 or 7.5% of them do not go to the library. This would imply that most of students enrolled in English 1 do not visit regularly the library.

Table 2

Frequency and Percentage Distribution of Participants’ Library Visit

Item	Frequency	Percentage
Daily	43	24.9
2-3 times a week	57	32.9

Weekly	23	13.3
Once a Month	37	21.4
Never	13	7.5
Total	173	100

3. The findings on their Information Skills advanced by the Association of College and Research Libraries (ACRL) are the following:

3.1 Overall, the participants were very capable of determining the nature and extent of information needed, although some indicated they were “quite capable” of knowing how information is produced, organized and disseminated. This area needs considerable attention in the drafting of the library information development module.

Table 3
Frequency and Mean Distribution of their Information Skills in Knowing Information

Indicator	Frequency					Mean	Description
	Most Capable	Moderately capable	Quite capable	Not Quite capable	Not at All		
1. I formulate questions based on the information need.	26	84	58	1	4	3.7	Very Capable
2. I explore general information sources to increase my familiarity with the topic.	47	76	47	3	0	4	Very Capable
3. I can identify key concepts and terms that describe the information I need.	15	76	74	7	1	3.6	Very Capable
4. I know how information is formally and informally produced, organized, and disseminated.	15	63	79	15	1	3.4	Quite Capable
5. I determine the availability of needed information.	26	77	61	8	1	3.7	Very Capable
6. I review the needed information to clarify, revise, or refine the question.	47	71	52	3	0	3.9	Very Capable
Overall Mean						3.7	Very Capable

3.2 As a whole, the participants were “very capable” of accessing information, although they also indicated that they were “quite capable” of constructing search strategies using the Boolean logic. Evidently, the data point to the need of assisting the participants’ skills in constructing a search strategy using appropriate commands.

Table 4
Frequency and Mean Distribution of their Information Skills in Accessing Information

Indicator	Frequency					Mean	Description
	Most Capable	Moderately capable	Quite capable	Not Quite capable	Not at All		
1. I select efficient and effective approaches for accessing the information needed.	46	74	49	4	0	3.9	Very Capable
2. I develop a research plan appropriate to the information I need.	21	69	77	5	1	3.6	Very Capable
3. I can identify keywords, synonyms and related terms for the information needed.	20	85	55	12	1	3.6	Very Capable
4. I construct a search strategy using appropriate commands for the information retrieval system selected	10	64	68	28	3	3.3	Quite Capable

(e.g., Boolean operators, truncation, and proximity for search engines; internal organizers such as indexes for books).							
5. I repeat the search using the revised strategy as necessary.	28	73	62	8	2	3.7	Very Capable
6. I use various technologies to manage the information selected and organized	47	63	58	4	1	3.9	Very Capable
Overall Mean						3.7	Very Capable

3.3 Overall, the participants were very capable in evaluating information but they were also “quite capable” in identifying verbatim material that can be appropriately quoted (3.3) and organizing the content in a manner that supports the needed purposes and format of the product or performance (3.5). Obviously, the figures suggest the need for participants to improve their skills in organizing content and in identifying materials that are appropriately quoted.

Table 5
Frequency and Mean Distribution of their Information Skills in Evaluating Information

Indicator	Frequency					Mean	Description
	Most Capable	Moderately capable	Quite capable	Not Quite capable	Not at All		
1. I restate textual concepts in my own words.	22	78	63	9	1	3.6	Very Capable
2. I identify verbatim material that can be appropriately quoted.	9	57	84	19	4	3.3	Quite Capable
3. I examine and compare information from various sources in order to evaluate its accuracy.	28	74	61	9	1	3.7	Very Capable
4. I determine whether to incorporate or reject viewpoints encountered.	37	80	48	7	1	3.8	Very Capable
5. I determine if original information need has been satisfied or if additional information is needed.	25	57	77	12	2	3.6	Very Capable
6. I organize the content in a manner that supports the needed purposes and format of the product or performance (e.g. outlines, drafts,).	22	79	62	9	1	3.5	Quite Capable
Overall Mean						3.6	Very Capable

3.4 From the data, it is evident that participants were “very capable” in manipulating digital data, using alternative strategies in accessing information, and using a range of information technology applications in creating a draft or outline. This is supported by the over-all mean of 3.6. On the other hand, they were also “quite capable” in transferring data from their original locations and formats to a new context, choosing a communication medium and format that supports the purpose of the product and the intended users.

Table 6
Frequency and Mean Distribution of their Information Skills In Using Information

Indicator	Frequency					Mean	Description
	Most Capable	Moderately capable	Quite capable	Not Quite capable	Not at All		
1. I manipulate digital and other data, as needed.	30	66	65	10	2	3.6	Very Capable
2. I manipulate transferring data from their original locations and formats to a new context.	20	76	56	16	5	3.5	Quite Capable
3. I reflect on past successes, failures, and alternative strategies in accessing information.	42	70	52	7	2	3.8	Very Capable
4. I choose a communication medium and	22	63	73	14	1	3.5	Quite

format that best supports the purposes of the product or performance and the intended audience.							Capable
5. I use a range of information technology applications in creating the product or performance I need.	22	75	67	8	1	3.6	Very Capable
6. I communicate the information that supports the purposes of the intended audience.	17	63	74	18	1	3.4	Quite Capable
Overall Mean						3.6	Very Capable

3.5 As a whole, the participants were very capable of understanding the ethical and legal issues surrounding the use of and access to information, as indicated in the over-all mean of 3.6 interpreted as “very capable”. It can also be gleaned in the table that the area or respecting the privacy and security of information in both print and electronic environments was self rated as only “quite capable”. It can be surmised that this aspect of library skill needs emphasis in the library information and literacy development.

Table 7
Frequency and Mean Distribution of their Information Skills in Understanding the Ethical and Legal Issues Surrounding Access and Use of Information

Indicator	Frequency					Mean	Description
	Most Capable	Moderately capable	Quite capable	Not Quite capable	Not at All		
1. I respect the privacy and security of information in both print and electronic environments.	11	52	80	27	3	3.2	Quite Capable
2. I demonstrate an understanding of intellectual property, copyright, and fair use of copyrighted material.	36	70	53	11	3	3.7	Very Capable
3. I legally disseminate the information.	21	81	55	14	2	3.6	Very Capable
4. I demonstrate an understanding of what constitutes plagiarism and do not represent work attributable to others as my own.	30	62	68	11	2	3.6	Very Capable
5. I use an appropriate documentation style consistently to cite sources.	28	77	53	12	3	3.7	Very Capable
6. I appropriately acknowledge copyrighted material.	32	62	60	15	4	3.6	Very Capable
Overall Mean						3.6	Very Capable

4. Data show that the hypothesis is partially supported with the significant relationships that exist between the students’ achievement in English 1 with their skills in evaluating ($r=0.194$) and citing ($r=0.177$). Furthermore, students frequency of library visits were found significant relationships with their skills in knowing ($r=0.227$), accessing ($r=0.169$), evaluating ($r=0.224$) and using ($r=0.179$). This finding is in consonance with the finding of Alharbi & Middleton (2012) which established the correlation (although low) between library usage and information skills among the students in three academic libraries in Kuwait.

5. Based on the findings of the study, the proposed information literacy module was designed for the college freshmen students.

Conclusions:

The information skills of college freshmen deserve considerable attention which could be possibly assisted by the proposed module on information literacy development and the Purposive Communication Class. Furthermore, the study emphasizes the importance of information skills in the learning process of the college freshmen.

Recommendations:

Based on the findings and conclusions of the study, the following recommendations are endorsed; that

1. an Information Literacy Program for freshmen students could be developed and implemented by the Library to enhance and fill in the needed skills not being taught in the Purposive Communication Classes;
2. an Information Literacy Program could include all the students of Tagoloan Community College;
3. an analysis or another study could be made to provide evident illustration of the development of the information literacy competencies of the freshmen students;
4. considering that the study is confined to Tagoloan College freshmen students, there could be a school-wide survey of the information literacy competencies of college students to establish an information literacy profile of the school's tertiary students.

Major References:

Association of College and Research Libraries. (2000). *Information Literacy Competency Standards for Higher Education*. Chicago: ACRL.
Retrieved 11 July 2019 from <http://www.ala.org/acrl/ilcomstan.html>

Mittermeyer, Diane and Diane Quirion (2003). *Information Literacy: study of Incoming First-Year Undergraduates in Quebec*. Conference of Rectors and Principals of Québec Universities.

Gross, Melissa and Latham, Don (2009). *Undergraduate perceptions of Information Literacy: Defining, Attaining, and Self-Assessing Skills*, College and Research Libraries, July.