Vol.12 (2) Apr-Jun, 2022 ISSN: 2231-4911

Information Literacy Competency of Secondary School Students: A Case Study of Vijayapura District

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Received: 20-Apr-2022, Manuscript No. IJLIS-22-61336; **Editor assigned:** 22-Apr-2022, PreQC No. IJLIS-22-61336 (PQ); **Reviewed:** 06-May-2022, QC No IJLIS-22-61336; **Revised:** 13-May-2022, Manuscript No. IJLIS-22-61336 (R); **Published:** 23-May-2022, DOI:10.35248/2231-4911.22.12.832.

Abstract-*The study investigated the information literacy competencies possessed by secondary school students in Vijayapura District with a focus on the knowledge and skill level. Information literacy is very important, especially in the field of education where the students required to be updated in accessing the information and knowledge required for their academic work. This is possible only with the development of information literacy competencies. In the present study survey method was adopted for the study. A structured questionnaire was used for data collection and purposive sampling technique was used to select sample size of 200 students, from selected two secondary schools in Vijayapura District. The main objective of the study was to determine the student's information literacy competencies such as, ability to access the information, ability to identify different information resources and the awareness about search strategies. The paper highlight on the problems of students in accessing information and attempt to know the preferred mode of accessing information.*

Keywords: Information, Information Literacy, Competency, Skills, Information Resources, Search Strategies, Secondary School Students, Vijayapura District.

Introduction

Information literacy is best addressed at multiple levels in the education process. Information literate students are more effective consumers of information sources. It has become a lot

evident that students cannot learn everything they have to grasp in their field of study. The term information literacy competency and information literacy skills though often used interchangeably are not the same (Force, 2016). Information literacy competency is a combination of knowledge, skills and attitudes towards recognizing when and why information is needed, where to find it, how to evaluate, manage and apply it, synthesize, use and communicate it ethically and legally. On the other hand, skill is a component of competency which includes other component (Anunobi & Obiora, 2014; Onyeneke & Charles, 2017).

The value of Information literacy to students' success cannot be overemphasized. Information literacy as noted by University of Liverpool Learning and Teaching Committee (2007), allows students to develop the capacity for independent critical analysis that is the characteristic of a school education, and equips them with the capability to update their knowledge and skills after graduation. An literate student is capable to : Recognize a need for information; determine the extent of information needed; access information efficiently; critically evaluate information and its sources; classify, store, manipulate and redraft information collected or generated; incorporate selected information into their knowledge base; use information effectively to learn, create new knowledge, solve problems and make decisions; access and use information ethically and legally; use information and knowledge for participate citizenship and social responsibility; and experience information literacy as part of independent learning and lifelong learning (Bundy, 2004).

Competency according to Bruce (2003) has to do with knowledge, skills and attitude which are drawn upon and applied to a particular context for successful learning and living. Based on the above definitions of competency and information literacy, information literacy competency therefore, has to do with knowledge, skills and attitude towards recognizing when and why information is needed, where to find and access it, how to evaluate, synthesize, use and communicate it ethically and legally.

Information literacy has been identified to include the capability of individuals to identify, locate and critically evaluate information for decision-making, knowledge creation and problem solving (Bruce, 2003). It encompasses the strategies, skills, knowledge and adoption

of appropriate information behaviour needed to define information needs, and to locate, evaluate, synthesize, organize, use and communicate information in ethical manner (Johnston & Shiela, 2003).

The present study focused on Secondary Schools in Vijayapura District, being information literate is very necessary so that the students would be able to sieve through and identify relevant and reliable information they get from the internet, newspapers, television and even friends for their school work. With the increasing trend of information digitization and the manner Information and Communication Technologies (ICTs) are being used in our daily lives, information literacy becomes increasingly necessary competency to equip the students with the required skills to navigate in the endless offer of information to meet their information needs in school (Majid & Yun, 2020).

This study, therefore, aims to investigate and gather data about information literacy competency of secondary school students in Vijayapura District. The study investigated the students' skills in searching, evaluating and using information in their academic quests life endeavours.

Competency based education and information skill

Main thought behind competency based education is training school students who not only know things but they are also able to do required jobs in a well-organized manner. This refers towards more functional and practical aspect of teaching learning process. According to this idea education and curriculum is to empower students to get hold of their education and training. They are able to access and deal with knowledge and skills outside the formal settings of the classrooms. Currently implemented curriculum in Pakistan is also focusing on certain competencies. For example, core competencies till secondary school level are focused to develop:

- Critical thinking.
- Problem solving.
- Logical reasoning.
- Scientific literacy.

These competencies are likely to give students a life skill and an attribute of independent and lifelong learning (National curriculum Pakistan, 2007).

Purpose of the study

The purpose of the study was twofold. First, it intended to determine the levels, of information literacy skills among high school students in Vijayapura District, which are student's general proficiencies in information handling information skills in accordance with some of the established generic information literacy competencies. Second, the study also sought to gain a border understanding of the information literacy practices in selected secondary schools, i.e. to develop a deeper insight of how information literacy skills are delivered and their position in school curriculum (Herring, 1996; Gekara, Ben & Cyprian, 2021).

Review of Related Literature

The Literature search indicates numbers of studies in the recent past which were carried out to find out the effects of information literacy skills on the use of e-library resources among school children of all over the world. In this study attempt has been made to review of the important studies were carried out during last two decades to make the study more simple and effective.

The study investigated information literacy competency of secondary school students in Owerri West, South East of Nigeria. The crux of the paper is to ascertain the level of information literacy knowledge and skills of the students, and their practical ability to effectively utilize information knowledge and skills (Onyeneke & Charles, 2017). This study revealed that the use of information literacy skills among the students of Alagappa University Central library users (Anunobi & Nwabueze, 2010). Simple random sampling technique is used in the study. The scope of the study covered various aspects like awareness in library sources and services, both printed document and electronic documents (Thanuskodi, 2018).

This study was only one of its kinds as, in addition to standard information literacy skills, it also discussed cyber wellness skills. It was desirable as now social media have become a popular source for information seeking and sharing. It appeared that integration of IL skills

into school curriculum showed limited success in imparting these skills. This paper suggests measures for improving the integration of IL skills into school curriculum (Majid & Yun, 2020).

The main purpose of this study was to evaluate this skill in high school students. Information literacy skill is known as a metacognitive ability. It is to be considered as an ability to understand the need of information, ways and sources to attain that information. It is considered to be a mandatory attribute for school students in earlier days. In this era of goal oriented education, students are expected to learn this kind of skill to compete in challenging professional life (Yousaf & Mumtaz, 2018). This is describing the information literacy skills among high school students: An exploratory study of six schools in the south east region of Botswana. The findings of the study indicate three main issues: first, poor information skills among the students; second, heavy reliance on the use of prescribed textbooks; and finally, the curriculum as a barrier towards the effective integration of information literacy skills into the educational system (Barry, 1997; Jorosi & Goitsemang, 2021).

Objectives of the study

The study sought to achieve the following objectives. These are:

- To determine the level of information literacy skills of secondary school students in Vijayapura District.
- To identify the information literacy programmes the students have been exposed to.
- To ascertain the availability and use of various libraries and other human information sources by the students.
- To find out the students level of knowledge about information ethics and collaborative information seeking.
- To identify the strategies adopted by the students in satisfying their information needs.
- To identify the challenges facing the students in their information literacy skills acquisition.

Vol.12 (2) Apr-Jun, 2022 ISSN: 2231-4911

Methodology

The survey method of research was used in the present study. Where in structured questionnaire has been designed to collect the data from school children. The questionnaire has been distributed among 200 students, in which 100 questionnaire were distributed for each of the school under study namely Daffodils School of Education, Vijayapura and PDJ High School, Vijayapura. The questionnaire was designed on a five point scale ranging from scale five strongly agree, four agree, three for strongly disagree, two for disagree and one for not at all. The essence was to test their level of information literacy skill. Data obtained from the study were analysed using descriptive and inferential statistics. Percentages, frequencies and mean rating were used to answer research questions. The entire 200 questionnaire were received from the students, with response rate of 100%.

Results and Discussion

Data analysis and interpretation

Based on the data collected from 200 respondents an attempt has been made to analyze and interpret the data in terms of information literacy competency of secondary school children.

Table 1: Class Wise Distribution

Class	Respondents	Percentage
IX std	100	50
X std	100	50
Total	200	100

The study population consists of school children of IX and X standard students at Daffodils school of education and Sainik School, Vijayapura District. It can be observed that the study population comprises (50%, N=100) of students were studying in IX class and the same number of students were studying in X class (Table 1).

Table 2: Gender Wise Distribution

Gender	Respondents	Percentage
Boys	99	49.5
Girls	101	50.0
Total	200	100.0

From the results revealed that (50%, N=101) of the students were Girls and it is followed by (49.5%, N=99) of the students were from Boys in Table 2.

Vol.12 (2) Apr-Jun, 2022 ISSN: 2231-4911

Table 3: Domicile Wise Distribution

Domicile	Respondents	Percentage
Rural	95	47.5
Urban	105	52.5
Total	200	100.0

Table 3 shows that domicile wise distribution of the study population. 52% (N=105) of the population hails from Urban area, where as the remaining (47.5%, N=95) has Rural background. It is observed from the above table majority of the students belongs to Urban area.

Table 4: Nature of School Wise Distribution

Nature	Respondents	Percentage
Boys school	00	00
Girls school	00	00
Co-education	200	100.0
Total	200	100.0

It is observed from the above table all students under study were studying in co-education school (Table 4).

Table 5: Age wise Distribution

Age in years	Respondents	Percentage
13-14 years	04	2.0
14-15 years	96	48.0
15-16 years	100	50.0
16 and above	00	0.0
Total	200	100.0

The age wise distribution of the population in table was grouped in four stages i.e., 13-14 years (2%, N=04), 14-15 years (48%, N=96), 15-16 years (50%, N=100) and no students belongs to the age group of 16 and above (Table 5).

Table 6: Student's Information Literacy Skills Level

Level	Respondents	Percentage
Highly skilled	00	0.0
Moderately skilled	158	79
Weakly skilled	33	16.5
Not skilled	09	4.5
Total	200	100.0

The above table majority of the students (79%, N=158) respondents observed that students' IL levels were moderately skilled because they were able to engage in class discussions and could complete their assignments without difficulties, (16.5%, N=33) respondents indicated that students' IL skills were weakly skilled since students accomplished their academic work and the rating was based on individual abilities, while (4.5%, N=9) indicated that students' IL levels were very low or not skilled since they entirely relied on teachers to help them to understand about assignments (Table 6).

From the findings, it can be deduced that there were glaring differences in IL levels of students in secondary schools as no students was assessed neither above average nor very high. This may negatively impact on their performance since they may be unable to independently seek for information for their studies. Student's low IL skills may be attributed to lack of training in the subject matter and its non-inclusion in secondary school programme. The integration of IL practices in secondary school education programme using the Big6 and Seven pillars constructs may help impart IL skills among students (Bent & Stubbings, 2011).

Table 7: Methods used to Acquire Information Literacy Skills.

Information literacy skills	Frequency	Percentage (%)
Assistance from my teachers	19	9.5
Guidance from library staff	11	5.5
Self-study (Users guide)	5	2.5
Training offered by my teacher/school	73	36.5
Formal education	27	13.5
Attending orientation programmes	15	7.5
By trial and error	50	25.0
Total	200	100.0

Students were asked which method they used to acquire Information Literacy skills. In Table 7 there were seven methods were given to students, in that more than 30% of the student community (36.5%, N=73) acquire IL skills through some of the training offered by my teacher/school, (25%, N=50) of the student community by using trial and error method and it is followed by (13.5%, N=27) of the student's use formal education method to acquire IL skills, and very less number of student community used the method of assistance from my teachers and it is followed by guidance from library staff, attending orientation programmes and self-study had less percentage.

Table 8: Students Rating their Competencies on Specific Information Literacy Aspects (N=200)

Aspects of Information Literacy	Strongly Agree	Agree	Strongly Disagree	Disagree	Not at all	Total	Mean	Rank
Ability to determine when information is needed.	11 (5.5%)	100 (50.0)	3 (1.5)	43 (21.5)	43 (21.5)	593	2.965	6
Ability to locate sources of needed information.	48 (24.0)	62 (31.0)	49 (24.5)	31 (15.5)	10 (5.0)	707	3.535	3
Ability to evaluate needed information.	22 (11.0)	72 (36.0)	15 (7.5)	42 (21.0)	49 (24.5)	576	2.88	7
Ability to understand the need to use information wisely.	50 (25.0)	90 (45.0)	3 (1.5)	32 (16.0)	25 (12.5)	708	3.54	2
Ability to retrieve information in any format from any source.	55 (27.5)	49 (24.5)	35 (17.5)	21 (10.5)	40 (20.0)	658	3.29	4
Ability to use information effectively to solve problems.	65 (32.5)	79 (39.5)	7 (3.5)	45 (22.5)	4 (2.0)	756	3.78	1
Ability to access information effectively.	33 (16.5)	57 (28.5)	17 (8.5)	70 (35.0)	23 (11.5)	607	3.035	5
Ability to understand ethical use of information	32 (16.0)	39 (19.5)	9 (4.5)	75 (37.5)	45 (22.5)	538	2.69	8

Note: Figures in the parentheses indicate percentages.

The above table presented data on student's response on their level of information literacy skills (Table 8). The above revealed that the skills majority of the students possess are the ability to use information effectively to solve problems with the mean score of 3.78, and ability to understand the need to use information wisely with the mean score of 3.54. The students also possess the ability to locate sources of needed information (mean score of 3.53). Few of the students possess the ability to retrieve information in any format from any source,

ability to access information effectively, ability to determine when information is needed, ability to evaluate needed information and also it is followed by ability to understand ethical use of information.

Based on the above findings students were of average competence in most of IL aspects corroborate observation that students would always inaccurately self-assess their IL competencies (Michalak & Monica, 2016). Students' awareness of their actual IL is useful as it would assist in designing an effective IL instruction programme for them. The assessment would help in putting into consideration all the weaknesses discovered among students with regard to IL Competencies.

School teachers and librarians were also asked to rate the performance of students basing on different IL facets. Although some of them had challenges in rating the performance of students, most of those who were interviewed rated students on issues including knowing about different sources and formats, how to use the different sources, analysing information, synthesizing information, evaluating information and using information ethically.

Table 9: Students Exposure to Information literacy programmes (N=200)

Variables	Strongly Agree	Agree	Strongly Disagree	Disagree	Not at all	Total	Mean	Rank
Library orientation/tours	47 (23.5)	56 (28.0)	17 (8.5)	47 (23.5)	33 (16.5)	637	3.185	7
Library instructions	70 (35.0)	40 (20.0)	14 (7.0)	56 (28.0)	20 (10.0)	684	3.42	5
Introductory lessons on information literacy	42 (21.0)	105 (52.5)	00 (0.0)	28 (14.0)	25 (12.5)	711	3.555	4
Information search skills	65 (32.5)	73 (36.5)	7 (3.5)	41 (20.5)	6 (3.0)	726	3.63	3
Research skills lessons	31 (15.5)	112 (56.0)	34 (17.0)	00 (0.0)	23 (11.5)	728	3.64	2
Online information search skills	28 (14.0)	98 (49.0)	24 (12.0)	30 (15.0)	20 (10.0)	684	3.42	5
Schools debating competition	58 (29.0)	78 (39.0)	16 (8.0)	36 (18.0)	12 (6.0)	734	3.67	1

Note: Figures in the parentheses indicate percentages.

The above table presents relevant data on student's exposure to information literacy programmes (Table 9). Results from the table show that students get exposure on Schools debating competition. This is confirmed by the mean scores of 3.67 and 3.64 for research skills. Other information literacy programmes that would have improved literacy skills of the students, such as information search skills, introductory lessons on information literacy, library instructions, online information search skills and library orientation/tours.

Table 10: Usage of the Library and Human Information Sources among Secondary School Students (N=200)

Variables	Strongly Agree	Agree	Strongly Disagree	Disagree	Not at all	Total	Mean	Rank
Uses the school library daily for information needs.	70 (35.0)	40 (20.0)	14 (7.0)	56 (28.0)	20 (10.0)	697	3.485	2
Uses the school library rarely for information needs	22 (11.0)	72 (36.0)	15 (7.5)	42 (21.0)	49 (24.5)	547	2.735	6
Uses the school library sometimes for information needs	47 (23.5)	56 (28.0)	17 (8.5)	47 (23.5)	33 (16.5)	629	3.145	4
Never used the school library for information needs.	65 (32.5)	79 (39.5)	7 (3.5)	45 (22.5)	4 (2.0)	758	3.79	1
Consults classmates and friends for information needs.	33 (16.5)	57 (28.5)	17 (8.5)	70 (35.0)	23 (11.5)	607	3.035	5
Consults teachers for information needs.	70 (35.0)	40 (20.0)	14 (7.0)	56 (28.0)	20 (10.0)	684	3.42	3
Note: Figures in the parentheses indicate percentages.								

The above table shows that majority (Mean score of 3.79) never used the School library for their information needs (Table 10). In the same vein, majority of them uses the School library

daily for information needs as confirmed by the mean scores of 3.48 and 3.42 Consults teachers for their information needs. All the other items in the table obtained a mean score of 3.14 for uses the School library sometimes for information needs and it is followed by mean score of 3.03 for consults classmates and friends for their information needs, 2.73 mean score of students uses the School library rarely for information needs.

Table 11: Strategies are adopted by the Students in Satisfying their Information Needs (N=200)

Variables	Strongly Agree	Agree	Strongly Disagree	Disagree	Not at all	Total	Mean	Rank
Consults primary and secondary sources for class assignments.	33 (16.5)	57 (28.5)	17 (8.5)	70 (35.0)	23 (11.5)	607	3.035	4
Consults books in the library for class assignments	28 (14.0)	96 (48.0)	24 (12.0)	31 (15.5)	21 (10.5)	679	3.395	2
Consults classmates in doing class assignments.	70 (35.0)	40 (20.0)	14 (7.0)	56 (28.0)	20 (10.0)	684	3.42	1
Consults family members in doing home works.	22 (11.0)	72 (36.0)	15 (7.5)	42 (21.0)	49 (24.5)	576	2.88	6
Browses the internet in doing home assignments	47 (23.5)	56 (28.0)	17 (8.5)	47 (23.5)	33 (16.5)	637	3.185	3
Consults the library catalogue in locating needed materials in the library.	33 (16.5)	57 (28.5)	13 (6.5)	70 (35.0)	23 (11.5)	595	2.975	5
Seeks librarians' assistance in locating needed information materials in the library.	16 (8.0)	70 (35.0)	15 (7.5)	42 (21.0)	49 (24.5)	538	2.69	7
Note: Figures in the parentheses indicate percentages.								

The above table provides information on the strategies adopted by the students in satisfying their information needs (Table 11). Mean scores of the respondents on the listed items indicate that the students consults classmates in doing class assignments (3.42), Consults books in the library for class assignments (3.39) and Browses the internet in doing home assignments (3.18), Consults primary and secondary sources (3.03) for their class assignments. The result further revealed that students adopt the practice of browsing library catalogue in locating needed materials in the library. Hence it is concluded by the above findings majority of these students consults their batch mates in preparing their class assignments.

Table 12: Challenges faced by the Students in their Information Literacy Skills Acquisition (N=200)

Variables	Strongly Agree	Agree	Strongly Disagree	Disagree	Not at all	Total	Mean	Rank
Students do not receive adequate library orientation and tours	47 (23.5)	56 (28.0)	17 (8.5)	47 (23.5)	33 (16.5)	637	3.185	3
Non-inclusion of information literacy lesson in the school curriculum.	47 (23.5)	56 (28.0)	15 (7.3)	50 (25.0)	31 (15.5)	635	3.175	4
Students lack access to effectively organized school library materials.	65 (32.5)	79 (39.5)	7 (3.5)	45 (22.5)	4 (2.0)	756	3.78	1
The negative influence of internet contents.	28 (14.0)	96 (48.0)	24 (12.0)	31 (15.5)	21 (10.5)	679	3.395	2

The above table shows challenges the students are often confronted with their information literacy skills acquisition (Table 12). The results indicates that three of the listed items in the table were considered as challenges to information literacy skills acquisition by the students

based on the observed mean scores. They are that students do not receive adequate library orientation program and tours (3.18), non-inclusion of information literacy lesson in the school curriculum (3.17) and lack of access to effectively organized information materials in the library (3.78). However the negative influence of internet contents is not regarded as a challenge to information literacy skills acquisition by the respondents (3.78).

Conclusion

Overall results prove that secondary school students do have information skills. They need training and guidance to use those skills for constructing knowledge and extending meanings from the acquired knowledge. Schools should also be offered such information literacy courses which can help to enhance their skills. On the other hand school teachers should also be trained in this regard. Trained school teachers who understand IL skills themselves better are in good position to teach these skills.

Teachers and policy makers can review curriculum and should consider addressing IL skills clearly in curriculum. For example, teachers might not teach information skill directly but they can assign tasks and assignments to make them learn. This activity can also help students to know how to avoid plagiarism etc. An experimental study can be helpful in this regard. Furthermore, various strategies can be adopted to develop and assess information skills, for instance, one-on-one interactive lessons, online sessions and encouraging the use of e-libraries. Such strategies can help students in learning and managing information.

Recommendations

There should be an organized some orientation programmes for capacity building and continuing education in Information Literacy for school teachers and library staff. Otherwise, IL should be included in the school curriculum in order to prepare school teachers with IL skills which they will in turn inculcate to secondary school students.

Schools should establish designated libraries and equip them with different information resources that will expose students to the challenge of finding the right sources hence

contribute to sharpening their IL competencies. Secondary schools should employ trained and qualified library staff to manage the school libraries and help in improving the students' IL competencies.

It is clear from the study teaching and learning of information skills can be helpful to attain those competency standards, as mentioned in curriculum, more easily. Equipping students with such kind of skill will enhance the chances of developing students as more competent professionals. It will also encourage independent learning or more popularly known self-learning.

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