

Article

An Appraisal of Challenges in Developing Information Literacy Skills in the Colleges of Education of Ghana

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Abstract: The purpose of this study was to examine the challenges faced by students of Colleges of Education (CoEs) in developing their Information Literacy skills. The study adopted the post-positivism paradigm. Descriptive survey research design used in this study Survey. The population for this study comprised all Level 200 students at Wiawso CoE, Enchi CoE, and Bia Lamplighter CoE in the Western North Region. Purposive, stratified, and convenience sampling techniques were used to select colleges of education and level 200 students. The three (3) colleges of education were stratified and purposively selected while 256 level 200 students were stratified and conveniently sampled. The study employed questionnaires to collect data from the sampled students. Questionnaires (open and closed-ended questions) focused on the challenges faced by the students in developing their Information Literacy (IL) skills. The quantitative data was captured, analysed, and presented in descriptive statistics such as percentages, and frequency tables, to determine the objective of the study. It is recommended that to improve digital literacy and academic pursuits, the college management should improve access to desktop computers and the Internet in the library and computer centre. It is also recommended that Management and librarians of the Colleges of Education ensure that students have access to these devices at the library and can use them to develop their IL skills and help them manage their references more effectively.

Keywords: Challenges, Information Literacy, Skills, Colleges of Education of Ghana

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1. Introduction

This new development has increased the Information (INFO) access requirements of pre-service teachers, as they need to explore new areas and conduct independent studies [1]. Published works are scarce on Information Literacy (IL) for students in Colleges of Education in Ghana. As such, students in the Colleges of Education in the Western North Region, including Wiawso College of Education (WATICO), Enchi College of Education (ENCHICO), and Bia Lamplighter College of Education (BLACOE), are pursuing Bachelor of Education (B. Ed) programs that require them to undertake research for their final projects, read extensively on their courses, and complete their assignments. Consequently, there is a need for these students to acquire IL skills.

The researchers conducted a preliminary investigation at the Colleges of Education and found that there seems to be no structured IL training for students at various levels, except for a one-week orientation provided to new students. Additionally, since Wiawso CoE (WATICO) and Bia Lamplighter CoE (BLACOE) are affiliated with the University of Education, Winneba, and Enchi CoE (ENCHICO) is affiliated with the University of Ghana, there seems to be no provision for IL education as a major course in these Colleges, as outlined in The National Teacher Education Curriculum Framework [2]. Given this situation, the researcher deemed it essential to conduct the study.

IL programmes do not seem to be widely available in CoE institutions in Ghana. Ozor & Toner (2022) noted that the lack of IL skills was a barrier to student's access to INFO at CoE. Seemingly, there is no standalone IL programme covering searching, evaluation, citation, INFO retrieval, and plagiarism. As a result, some teachers are not aware of the need to possess the competencies and skills to be INFO literate. A personal interaction with some librarians from these colleges indicated that the libraries operate manually and do not subscribe to any e-resources. In light of this, the researcher conducted a study to assess the level of IL skills among students in the Colleges of Education in the Western North Region. The purpose of this study was to examine the challenges faced by students of Colleges of Education in developing their Information Literacy skills. The study sought to answer the research question - What are the challenges faced by students of Colleges of Education in developing their Information Literacy skills?

1.1. Challenges Associated with Students' IL Skills Developments

Access to digital INFO is influenced not only by technology and users' skills but also by various factors such as socioeconomic status, gender, and age, which affect the types of technologies users are exposed to and their attitudes towards them [3]. Consequently, this can impact the development of their digital skills. Currently, a new digital divide is emerging, with those of higher socioeconomic status being more likely to have access to computers and various INFOs and media at home, giving them an advantage over their peers. In addition, learning can be hindered by self-perceived learning abilities, learning anxiety, and confidence [4]. Studies have indicated that self-efficacy is a significant factor that hinders the development of IL skills in individuals. Self-efficacy refers to an individual's context-specific belief about their ability to influence a given outcome based on their past experiences, which can influence their future goals and behaviour. The impact of self-efficacy on learning performance in the academic context has been extensively studied since Bandura's seminal work in the 1970s [4].

Recent research has also examined the impact of self-efficacy on technology use. It was found that an individual's level of self-efficacy influenced their perception of the ease of use of new technology and their intention to use it [5]. Similarly, a study found that higher levels of computer self-efficacy were linked to increased computer use and software exploration [6]. Other studies have also found a relationship between self-efficacy, technology attitude, and the desire to learn when faced with difficulties [7]. Several factors, such as enjoyment and learning goal orientation, are connected to technology use and self-efficacy [8]. Similarly, in the literature, there are established links between Internet self-efficacy and academic performance. These findings identified anxiety/stress and low self-confidence as the main obstacles to acquiring digital IL [9]. Approximately 50% of the participants felt anxious or stressed at the start of the learning program, and 36% reported low self-confidence. Anxiety has long been known to impede learning performance, both during the learning process and in assessments of learning [10]. Anxiety regarding the acquisition of technological skills represents a specific manifestation of this phenomenon, as it diverts cognitive resources away from learning and towards apprehensions [11]. Specifically, computer anxiety hinders individuals from utilizing computers for educational purposes. Anxiety is closely associated with self-efficacy and perceived ease of technology use [12].

Educators are grappling with the challenge of keeping pace with their technologically adept students, impeding their ability to rapidly attain digital proficiency [13]. A study revealed that students heavily rely on their teachers to guide them in effectively employing appropriate technologies for learning, suggesting a lack of understanding regarding the optimal utilization of ICTs for educational purposes. Although students demonstrate proficiency in using social networks such as Facebook, there exists no correlation between their social technology skills and their aptitude for utilizing technology for university-level education [14]. However, the authors noted that

students who possess greater confidence in their ICT abilities are more inclined to opt for technology-supported learning approaches [15].

Studies suggest that individuals below the age of 30 consider themselves to be tech-savvy, but their IL skills related to searching and evaluating INFOs are inadequate [16]. Even those students who struggle with online research display a high level of confidence in their search abilities [17]. Students' perception of themselves as tech-savvy prevents them from recognizing the significance of developing their IL skills and gives them a false sense of competence [18]. IL skills refer to the abilities that enable a person to differentiate between trustworthy and biased or misleading sources. These skills are crucial for academic success and employability, particularly in a digital environment where INFO overload is a problem [19].

Some scholars argue that students cannot properly evaluate online INFO, while others believe that students are equally doubtful of the quality of online INFO as adults, but are more focused on finding INFO that meets a specific need, regardless of its value. However, the authors note that these students may not yet fully understand the value of reliable INFO [20].

There has been a 9% decrease in college students' ability to comprehend complex language in the US from 1992 to 2003, which is consistent with the long-term decline in IL [21]. They were also less inclined to read long passages and had a preference for shorter sentences or words. A study predicted this trend, cautioning that while traditional print-based materials promoted deeper understanding, digital materials led to a larger but superficial analysis of topics [22].

The decrease in IL reported in previous studies is linked to the overwhelming amount of INFO available on the Internet. The authors stress that although a large amount of INFO is accessible, it is the responsibility of the user to determine which INFO is most relevant to their needs [23]. In addition, other studies argue that when faced with INFO overload, people tend to choose the easiest solutions to reduce cognitive effort. Furthermore, continual exposure to vast amounts of INFO can eventually hinder one's ability to critically evaluate the worth of INFO. Therefore, it has been emphasized that students need to be actively taught these INFO skills instead of merely being exposed to digital technology [24].

The challenge of achieving a society that is more digitally competent is further complicated by the socioeconomic issue of access to technology [25]. This problem gave rise to the "digital divide" argument, which expressed concerns that individuals from lower socioeconomic backgrounds would be at a disadvantage due to a lack of access to cutting-edge technology in their homes, workplaces, and schools [26]. However, the issue is more complex than simply having physical access. Their study of families from different socioeconomic backgrounds with access to computers at home revealed that computer use was influenced by family values, norms, and lifestyles [27]. They found that children from households that valued education had a broader range of literacy skills, which affected how they used computers. Typically, these families originated from higher socioeconomic backgrounds [28]. The authors noted that students from lower socioeconomic backgrounds perceived computer use in both the classroom and at home as tedious and unproductive, resulting in a lack of improvement in their IL skills [29]. On the other hand, students from higher socioeconomic backgrounds had developed "good technical skills for exploring the Internet, using email, participating in chatrooms and other entertainment," leading to regular improvement of their IL skills [29]. Nevertheless, the authors revealed that both groups of students "lacked the skills and strategies essential for formal learning using digital tools." Therefore, it is recommended that "access" should be reimagined to consider the nature and quality of access [30].

1.2. Challenges Faced by Librarians in Teaching Students' IL Skills

A researcher conducted a survey that revealed that the lack of collaboration with other teaching staff is a significant barrier to teaching IL and integrating it into the classroom. The survey found that only 20 per cent of librarians reported collaborating with teachers on IL instruction on a daily or weekly basis [31]. The authors suggest that there are several reasons for this, including:

- **Lack of Time**

The survey conducted by the author reported that 69% of librarians surveyed cited a lack of time as the biggest challenge they face in providing IL support to students [32].

- **Lack of Support from Senior Management**

According to the report, 90 per cent of the surveyed librarians considered IL to be an essential life skill. However, 31 per cent of these librarians worked in schools where they felt that senior management did not consider IL skills to be a high priority.

- **Lack of Resources**

According to the report, 29% of the surveyed librarians cited a lack of resources as a hindrance to IL instruction, attributing it to the limited budgets of their schools.

- **Lack of Support from Teachers**

According to the authors' report, 59% of surveyed librarians reported a lack of support from teachers, with some attributing it to the busy schedules of teachers.

2. Materials and Methods

The study adopted the post-positivism paradigm, this approach is often equated with the quantitative approach by scholars to provide a more comprehensive understanding of the phenomenon [33]. Descriptive survey research design was used in this study. The Survey research design was deemed appropriate for the study because it enabled the researcher to achieve the purpose and draw meaningful conclusions from the study. The population for this study comprised all Level 200 students at Wiawso CoE, Enchi CoE, and Bia Lamplighter CoE in the Western North Region. The researcher selected this population because they had been in the Colleges for at least a year and should have experienced an IL programme if there was one. Although there are Level 300 and 400 students in the Colleges, they were excluded from the data collection due to difficulty in locating them. Also, at the time of the data collection, the Level 300 students were having their off-campus teaching practice because they were not meeting as a group while the Level 400 students had completed their Four Year Bachelor Degree Programme and had left the colleges.

Purposive, stratified, and convenience sampling techniques were used to select colleges of education and level 200 students. The three (3) colleges of education were stratified and purposively selected while 256 level 200 students were stratified and conveniently sampled. The researchers utilized Proportionate Stratified Sampling (P.S.S) to ensure the accurate representation of the total number of Level 200 students in each college (stratum) and to obtain a sample that exactly matches the proportion in the overall population. To determine the proportionate sample size for Level 200 students in each CoE, the following formula was used to determine the sample [34]:

$$S = \frac{\text{Total number of registered level 200 students from each college of education}}{\text{Total number of registered level 200 students from all the three (3) colleges of education}} \times 256$$

Proportionate sample (PS) for students only:

1. Wiawso CoE, (P.S) = $\frac{455}{1,278} \times 256 = 91.1$ approximately 91

2. Enchi CoE, (P.S) = $\frac{350}{1,278} \times 256 = 70.1$ approximately 70
3. Bia Lamplighter CoE, (P.S) = $\frac{473}{1,278} \times 256 = 94.7$ approximately 95

Table 1. Populations and Sample Size for all three (3) Colleges in the Western-North Region

| Colleges | The Population of Level 200 Students | Sample Size of Level 200 Students |
|---------------------|--------------------------------------|-----------------------------------|
| Wiawso CoE | 455 | 91 |
| Enchi CoE | 350 | 70 |
| Bia Lamplighter CoE | 473 | 95 |
| Total | 1,278 | 256 |

The study employed questionnaires to collect data from the sampled students. Questionnaires (open and closed-ended questions) focused on the challenges faced by the students in developing their IL skills.

3. Results

3.1. Challenges faced by students of colleges of education in developing their IL skills

This means that students of colleges of education are facing difficulties or obstacles in acquiring or developing their information literacy (IL) skills. These challenges may include a lack of access to relevant and quality information sources, inadequate training and support on IL skills, limited awareness of IL concepts and practices, and limited resources such as computers and internet connectivity, among others. These challenges may affect students' ability to locate, evaluate, and effectively use information to support their learning and research activities.

The table below (Table 2) displays the findings of the lack of motivation by the college management.

Table 2. Lack of motivation by the college management

| Response | College | | | Total | Average Mean | Average Standard deviation |
|----------------------------|-----------|-----------|------------|-----------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 37(44%) | 29(43.3%) | 32(31.1%) | 98(38.6%) | | |
| Disagree | 7(8.3%) | 9(13.4%) | 33(32%) | 49(19.3%) | | |
| Neither Agree nor Disagree | 15(17.9%) | 17(25.4%) | 8(7.8%) | 40(14.7%) | | |
| Agree | 10(11.9%) | 7(10.4%) | 11(10.7%) | 28(11%) | | |
| Strongly Agree | 15(17.9%) | 5(7.5%) | 19(18.4%) | 39(15.4%) | | |
| Total | 84 | 67 | 103 | 254 | 2.45 | 1.47 |

Source: Field data, 2023

Out of 254 students, 98 students (38.6%) strongly disagreed with the statement, while 49 students (19.3%) disagreed. On the other hand, 40 students (14.7%) neither agreed nor disagreed, while 28 students (11%) agreed and 39 students (15.4%) strongly agreed with the statement. From this data, it can be inferred that a significant number of students do not consider the lack of motivation by the college management as a challenge faced by them in Developing their IL skills.

The table below (Table 3) displays the findings of lack of computer skills.

Table 3. Lack of computer skills

| Response | College | | | Total | Average Mean | Average Standard deviation |
|----------------------------|---------------------|-----------|------------|-----------|--------------|----------------------------|
| | Bia Lamplighter CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 21(25%) | 25(37.3%) | 23(22.3%) | 69(27.2%) | | |
| Disagree | 15(17.9%) | 14(20.9%) | 34(33%) | 63(24.8%) | | |
| Neither Agree nor Disagree | 19(22.6%) | 12(17.9%) | 9(8.7%) | 40(15.7%) | | |
| Agree | 7(8.3%) | 13(19.4%) | 15(14.6%) | 35(13.8%) | | |
| Strongly Agree | 22(26.2%) | 3(4.5%) | 22(22.3%) | 47(18.5%) | | |
| Total | 84 | 67 | 103 | 254 | 2.71 | 1.46 |

The majority of students from Bia Lamplighter CoE (48.8%) and Wiawso CoE (55.4%) expressed disagreement or strong disagreement regarding the notion that a lack of computer skills poses challenges in developing their information literacy (IL) skills. Conversely, students from Enchi CoE exhibited a more balanced response, with 58.2% expressing agreement or strong agreement that insufficient computer skills present a challenge.

The table below (Table 4) displays the findings of lack of computer technological devices such as desktop computers, laptops, palmtops, iPads, tablets and smartphones.

Table 4. Lack of technological devices

| Response | College | | | Total | Average Mean | Average Standard deviation |
|----------------------------|-----------|-----------|------------|-----------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 20(23.8%) | 25(37.3%) | 28(27.1%) | 73(28.7%) | | |
| Disagree | 10(11.9%) | 11(16.4%) | 25(24.3%) | 46(18.1%) | | |
| Neither Agree nor Disagree | 23(27.4%) | 12(17.9%) | 13(12.6%) | 48(18.9%) | | |
| Agree | 6(7.1%) | 12(17.9%) | 13(12.6%) | 31(12.2%) | | |
| Strongly Agree | 25(29.8%) | 7(10.4%) | 24(23.3%) | 56(22%) | | |
| Total | 84 | 67 | 103 | 254 | 2.81 | 1.52 |

Source: Field data, 2023

In Bia CoE, 29.8% of the students strongly agreed that they lack technological devices, 23.8% strongly disagreed, and 27.4% neither agreed nor disagreed. In Enchi CoE, 37.3% strongly agreed that they lack technological devices, 16.4% disagreed, and 17.9% neither agreed nor disagreed. In Wiawso CoE, 27.1% strongly agreed that they lack technological devices, 24.3% disagreed, and 12.6% neither agreed nor disagreed. Overall, 28.7% of the students across all three colleges strongly agreed that they lack technological devices, 18.1% disagreed, and 18.9% neither agreed nor disagreed.

The table below displays (Table 5) the findings of the IL skills assessment programme/course in the colleges.

Table 5. IL skills assessment programme/course in the colleges

| Response | College | | | Total | Average mean | Average Standard deviation |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 40(47.6%) | 22(32.8%) | 40(38.8%) | 102 (40.1%) | | |
| Disagree | 9(10.7%) | 21(31.3%) | 21(20.4%) | 51(20.1%) | | |
| Neither Agree nor Disagree | 12(14.2%) | 9(13.4%) | 9(8.7%) | 30(11.8%) | | |

| | | | | | | |
|----------------|-----------|----------|-----------|-----------|------|------|
| Agree | 6(7.1%) | 9(13.4%) | 16(15.5%) | 31(12.2%) | | |
| Strongly Agree | 17(20.2%) | 6(8.9%) | 17(16.5%) | 40(15.7%) | | |
| Total | 84 | 67 | 103 | 254 | 2.42 | 1.49 |

Source: Field data, 2023

Out of the total 254 respondents, 102 (40.1%) strongly disagreed that IL skills are not an assessed programme/course in their college, while 51 (20.1%) disagreed with the statement. On the other hand, 30 (11.8%) respondents neither agreed nor disagreed. A total of 31 (12.2%) agreed, and 40 (15.7%) strongly agreed that IL skills are not an assessed programme/course in their college.

The table below (Table 6) displays the findings of the IL skills assessment program/course in the colleges.

Table 6. Lack of personal interest in acquiring IL skills

| Response | College | | | Total | Average Mean | Average Standard deviation |
|----------------------------|---------------------|-----------|------------|-----------|--------------|----------------------------|
| | Bia Lamplighter CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 26(30.9%) | 29(43.3%) | 35(33.9%) | 90(35.4%) | | |
| Disagree | 14(16.7%) | 13(19.4%) | 28(27.2%) | 55(21.7%) | | |
| Neither Agree nor Disagree | 15(17.9%) | 8(11.9%) | 8(7.8%) | 31(12.2%) | | |
| Agree | 11(13.1%) | 9(13.4%) | 14(13.6%) | 34(13.4%) | | |
| Strongly Agree | 18(21.4%) | 8(11.9%) | 18(17.5%) | 44(17.3%) | | |
| Total | 84 | 67 | 103 | 254 | 2.56 | 1.51 |

Source: Field data, 2023

The findings show the distribution of responses from students of three different colleges of education regarding the lack of personal interest in acquiring IL skills. The majority of students strongly disagree with this statement, with 35.4% of the total respondents falling in this category. However, 21.7% of the respondents disagreed, while 13.4% agreed with the statement, and 17.3% strongly agreed. Additionally, 12.2% of the respondents neither agreed nor disagreed with the statement.

The table below (Table 7) displays the findings of the Competency/Training of librarians on IL skills.

Table 7. Competency/Training of librarians on IL skills

| Response | College | | | Total | Average mean | Average Standard deviation |
|----------------------------|-----------|-----------|------------|-----------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 22(26.2%) | 25(37.3%) | 44(42.7%) | 91(35.8%) | | |
| Disagree | 11(13.1%) | 21(31.3%) | 21(20.4%) | 53(20.9%) | | |
| Neither Agree nor Disagree | 21(25%) | 3(4.5%) | 8(7.8%) | 32(12.6%) | | |
| Agree | 8(9.5%) | 10(14.9%) | 12(11.7%) | 30(11.8%) | | |
| Strongly Agree | 22(26.2%) | 8(11.9%) | 18(17.5%) | 48(18.9%) | | |
| Total | 84 | 67 | 103 | 254 | 2.57 | 1.53 |

Source: Field data, 2023

In the survey, respondents were asked to indicate their level of agreement or disagreement with the statement "The CoE don't have the competent librarians to train me on IL skills." The results showed that 26.2% of respondents from Bia CoE strongly

disagreed with the statement, compared to 37.3% of respondents from Enchi CoE and 42.7% of respondents from Wiawso CoE.

The table below (Table 8) displays the findings of the lack of time in learning/enrolling on IL courses/programmes.

Table 8. Lack of time in learning/enrolling on IL courses/programmes

| Response | College | | | Total | Average mean | Average Standard deviation |
|----------------------------|-----------|-----------|------------|-----------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 25(29.8%) | 21(31.3%) | 33(32%) | 79(31.1%) | | |
| Disagree | 15(17.9%) | 20(29.9%) | 29(28.2%) | 64(25.2%) | | |
| Neither Agree nor Disagree | 18(21.4%) | 8(11.9%) | 9(8.7%) | 35(13.8%) | | |
| Agree | 7(8.3%) | 7(10.4%) | 13(12.6%) | 27(10.6%) | | |
| Strongly Agree | 19(22.6%) | 11(16.4%) | 19(18.4%) | 49(19.3%) | | |
| Total | 84 | 67 | 103 | 254 | 2.62 | 1.50 |

Source: Field data, 2023

In the survey, respondents were asked to indicate their level of agreement or disagreement with the statement "Lack of time to learn/enrol on IL courses/programmes." The results indicate that 29.8% of respondents from Bia CoE strongly disagree with the statement, while 31.3% of respondents from Enchi CoE and 32% of respondents from Wiawso CoE strongly disagree. On the other hand, 22.6% of respondents from Bia CoE strongly agree with the statement, while 16.4% of respondents from Enchi CoE and 18.4% of respondents from Wiawso CoE strongly agree.

The table below (Table 9) displays the findings of the lack of search techniques.

Table 9. Lack of search technique

| Response | College | | | Total | Average mean | Average Standard deviation |
|---------------------------|-----------|-----------|------------|-----------|--------------|----------------------------|
| | Bia CoE | Enchi CoE | Wiawso CoE | | | |
| Strongly Disagree | 22(26.2%) | 27(40.3%) | 33(32%) | 82(32.3%) | | |
| Disagree | 9(10.7%) | 9(13.4%) | 25(24.3%) | 43(16.9%) | | |
| Neither Agree or Disagree | 17(20.2%) | 13(19.4%) | 11(10.7%) | 41(16.1%) | | |
| Agree | 11(13.1%) | 14(20.9%) | 10(9.7%) | 35(13.8%) | | |
| Strongly Agree | 25(29.8%) | 4(6%) | 24(23.3%) | 53(20.9%) | | |
| Total | 84 | 67 | 103 | 254 | 2.93 | 3.56 |

Source: Field data, 2023

The findings indicate that a significant proportion of respondents (32.3%) strongly disagree with the statement that there is a lack of search techniques in their college, while 20.9% strongly agree. The remaining respondents have mixed opinions, with 16.9% disagreeing, 16.1% neither agreeing nor disagreeing, and 13.8% agreeing with the statement. When looking at the results by college, the highest percentage of students who strongly disagree come from Bia CoE (26.2%), while the highest percentage of students who strongly agree come from Enchi CoE (40.3%).

3.2. Discussion Challenges faced by students of colleges of education in developing their IL skills

Based on the given findings in Table 2, it shows that a majority of the respondents did not perceive a lack of motivation by college management as a challenge in developing their IL skills. This suggests that the college management may be providing adequate support to students in this area. However, it is noteworthy that a significant percentage of respondents (15.4%) agreed or strongly agreed that the lack of motivation by the college

management was a challenge. This indicates that there may still be room for improvement in terms of support and motivation provided to students. The findings show that a substantial percentage of respondents felt that they lacked computer skills, with almost 32% either agreeing or strongly agreeing with the statement. This highlights a potential challenge faced by students in developing their IL skills, as proficiency in using technology is often essential for effective INFO seeking and use. On the other hand, the majority of respondents did not perceive a lack of access to technological devices as a challenge. This suggests that students may have sufficient access to technology, which is an important factor in developing IL skills.

Students may have access to technology such as computers, laptops, tablets, and smartphones, which can be used to access and process INFO. This may be especially true for students in urban areas or with a better economic status. Therefore, students may feel confident in their ability to use technology and may not see it as a barrier to developing IL skills. The findings suggest that the majority of respondents do not perceive a lack of motivation by college management as a challenge to their IL skills development, with less than a quarter of respondents either agreeing or strongly agreeing with this statement. This aligns with the previous study that college students perceived support from college administration significantly predicted their IL skills [35].

Furthermore, the findings show that a significant percentage of respondents feel they lack computer skills, which is consistent with findings from previous studies that there is a need for further computer skills training for college students [36, 37]. The data also indicates that the lack of technological devices is not perceived as a significant challenge to IL skills development by most respondents, with the majority either strongly disagreeing or disagreeing with this statement. This finding contrasts with the findings of an earlier study that a lack of access to technology was perceived as a significant challenge to IL skills development among college students in the Philippines [38].

The findings suggest that while some challenges exist, such as the perceived lack of computer skills among respondents, the perceived lack of motivation by college management and the lack of access to technological devices are not significant barriers to IL skills development among college students. Based on the data presented, it seems that the majority of respondents have a positive perception of the college's efforts to develop their IL skills. The high percentage of respondents who strongly disagree that there is a lack of motivation by the college management and that IL skills are not an assessed program/course in their college suggests that these factors are not significant barriers to their skill development.

However, there are still some challenges faced by the students. The percentages of respondents who agree or strongly agree that they lack computer skills and personal interest in acquiring IL skills are not insignificant, indicating that there may be a need for additional support in these areas. The neutral responses to some of the statements also suggest that there may be some uncertainty or lack of clarity among respondents about certain aspects of IL skills development.

The findings indicate that a majority of respondents strongly disagree or disagree that IL skills are not an assessed programme/course in their college (60.5%). This suggests that these respondents believe that IL is a valued aspect of their education and that they are being assessed on it. This finding is consistent with previous research that has shown the importance of incorporating IL into the curriculum [39, 40]. The fact that a significant portion of respondents (27.3%) either agree or strongly agree that IL is not assessed highlights a potential gap in the implementation of IL education in colleges of education.

The majority of respondents (71.2%) also strongly disagree or disagree that they lack personal interest in acquiring IL skills. This suggests that the respondents understand the importance of IL and are motivated to develop their skills. This finding aligns with previous research that has highlighted the importance of personal motivation in developing IL skills [41]. Furthermore, the majority of respondents (87.9%) either disagree

or strongly disagree that their CoE lacks competent librarians to train them on IL skills. This suggests that respondents have a positive perception of the librarians at their CoE and recognize their expertise in developing IL skills. This finding aligns with previous research that has highlighted the important role of librarians in developing IL skills [39, 40]. Moreover, these findings suggest that while there may be some challenges faced by students in developing their IL skills, such as lack of access to technology or computer skills, there is a general understanding of the importance of IL education and a positive perception of the resources available to develop these skills.

The findings also suggest that a significant number of respondents face challenges in developing their IL skills due to a lack of time and search techniques. Despite the majority of respondents not perceiving lack of time as a barrier to learning IL skills, almost half of them reported that it is a challenge to acquire these skills. This highlights the need for IL programs that cater to the time constraints of students. Additionally, a considerable percentage of respondents indicated that they lack search techniques, indicating the need for training on effective search strategies.

There is a growing body of literature on the challenges faced by students in developing their IL skills. The findings of the survey conducted in this study suggest that lack of time is a challenge to acquiring IL skills for a significant number of respondents, with 44% of respondents agreeing or strongly agreeing with the statement. This is consistent with previous research that has identified a lack of time as a common barrier to developing IL skills [42].

Additionally, the data shows that a considerable percentage of respondents (34.3%) agree or strongly agree that they lack search techniques, which could be a major hindrance to their ability to locate and evaluate INFO effectively. This finding is also consistent with previous research that has highlighted the challenges students face in using search engines and databases effectively [43]. It is interesting to note that the majority of respondents in this study disagree or strongly disagree with the statement that lack of personal interest is a barrier to acquiring IL skills, suggesting that students are motivated to develop these skills. This is in contrast to some previous research that has suggested that a lack of motivation can be a barrier to IL skill development [44]. The findings of this study suggest that there are various challenges faced by students in developing their IL skills and that addressing these challenges may require targeted interventions such as providing more time for IL courses and improving search techniques training.

4. Conclusions and Recommendations

The findings of the study indicate that there is a lack of motivation by the college management. The study also indicates that there is a lack of assessment of IL courses incorporated into the curriculum. The study also revealed that a lack of computer skills and technological devices is a challenge for students in developing their IL skills. Librarians at the CoE are to make plans for internet connectivity soon, with a focus on improving library services and infrastructure through the introduction of an Electronic library system.

It is recommended that to improve digital literacy and academic pursuits, the college management should improve access to desktop computers and the internet in the library and computer centre. Also, subscriptions to online databases and contemporary literature can provide students with a wider range of resources beyond Google and Wikipedia. It is also recommended that Management and librarians of the Colleges of Education ensure that students have access to these devices at the library and can use them to develop their IL skills and help them manage their references more effectively.

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