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# A COMPARATIVE ANALYSIS OF INFORMATION LITERACY SELF-EFFICACY SKILLS OF POSTGRADUATE STUDENTS IN LIBRARY SCHOOLS IN SOUTH-SOUTH, NIGERIA

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**A COMPARATIVE ANALYSIS OF INFORMATION LITERACY SELF-EFFICACY  
SKILLS OF POSTGRADUATE STUDENTS IN LIBRARY SCHOOLS IN  
SOUTH-SOUTH, NIGERIA**

**BY**

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**ABSTRACT**

*The aim of the study is to investigate information literacy self-efficacy skills of postgraduate students. The study consists of 115 Library and Information Science Postgraduate Students in South-South, Nigeria. The information literacy self-efficacy scale (7 factors) developed by Kurbanoglu, Akkoyunlu & Umay (2006) was used to collect data. Descriptive statistics and Pearson Correlation Coefficients were used for analysis. Results indicated that the postgraduate students across the three institutions possess information literacy self-efficacy skills. However, there is significant variation in three out of the seven factors predicting information literacy self-efficacy skills. Therefore, the study recommends that information literacy self-efficacy should be given more attention especially in the use of metacognitive learning strategies that will enable postgraduate students increase their ability in initiating search strategy, assessing and comprehending information as well as to interpret, synthesize and use information.*

**Keywords:** *Information literacy, self-efficacy, skills, postgraduate students*

**Introduction**

Information literacy self-efficacy is an important concept in today's educational development especially in new media and information environments. Information literacy self-efficacy plays an important role among students in their academic pursuits, especially in accessing electronic information resources. There is the tendency that students who possess information literacy self-efficacy skills are likely to achieve their full academic potential. It is the competence and confidence exhibited to actualise specific goals or objectives. Hence, information literacy self-efficacy construct has been associated with higher levels of motivation in students (Pinto & Sales, 2010) and also with academic success (Bayram & Comek, 2009). Information literacy self-efficacy emphasizes the possession of information skills and the confidence to use these skills effectively. In other words, learning certain skills is not sufficient; individuals should also develop confidence in the skills that they are learning. Hence, besides possessing information

literacy skills individuals of today's societies must also be confident in the use of these skills. Therefore, attainment of high sense of self-efficacy beliefs is as important as possessing information literacy skills.

### **Literature review**

Various studies have shown that information literacy self-efficacy plays an important role in students' learning and educational achievements (De Meulemeester, 2013; Ross, Perkins & Bodey, 2013; Zinn, 2013). The importance of information literacy self-efficacy in the overall success of students cannot be over emphasized as it facilitates lifelong learning. This is because information literacy self-efficacy and academic motivation are both argued to play important roles in student academic development and lifelong learning. Lifelong learning consists of all of the formal and informal learning activities that students experienced to develop their knowledge, skills, and abilities individually and socially (Diker-Coskun and Demirel, 2010). Lifelong learning is a key part of individuals updating their knowledge and skills, in that, people can learn if they are continuously in need of learning (Colakoglu, 2002). Lifelong learning requires obtaining constantly information literacy skills and then having the confidence in using the skills in accessing and evaluating information effectively. To achieve this, one important factor for individuals is information literacy self-efficacy.

According to Ross *et al.* (2013), information literacy self-efficacy is a predictor of student academic achievement. As such, there is a relationship between information literacy self-efficacy and academic motivation. Information literacy self-efficacy is essential as it enable students to be sophisticated in their ability to access, evaluate and use information appropriately (Kiliç-Çakmak, 2010:193). Information literacy self-efficacy thus has a critical role, particularly in new media and information environment as it is associated with the competence and confidence needed in today's web environment where numerous electronic resources are domicile. This is because students with higher information literacy self-efficacy are more likely to have high library skills (Tang and Tseng, 2013:103) that will enable them make judicious use of library resources especially electronic information resources. The significance of information literacy self-efficacy is increasing rapidly in parallel with current needs due to technological changes, and increase and multiplication in information sources. Since information sources have become

more complex, students in their academic studies are confronted with various and abundant information which require information literacy self-efficacy for effective and efficient utilization. The use of library and its resources depends heavily on the students' personal conviction of information literacy self-efficacy skills. Therefore, information literacy self-efficacy has become crucial in this information age where electronic resources are inevitable especially for students' research. As such, the degree by which a given user could search successfully and in different spans of time is highly related to the concept of information literacy self-efficacy. Hence, Kurbanoglu, Akkoyunlu & Umay (2006) noted that information literacy self-efficacy is an integrated concept that enhances people's belief and skills in accessing, using, sharing and evaluating information.

Information literacy self-efficacy enhances the critical attitude of the student, and therefore, could motivate the student for autonomous lifelong learning (De Meulemeester, De Sutter & Verhaaren, 2012). It plays an important role in how individual undertake a given task. It is a great determinant of success in today's organizational and professional performances and workflows. In today's world, in order for people to brilliantly execute their information-problem solving actions or to become self-guiding, motivating, and life-long learning individuals, they are expected to cultivate a positive self-efficacy perception on information skills (Akkoyunlu and Kurbanoglu, 2002).

The importance of information literacy cannot be overemphasized. It is a skill required for finding, utilizing, and evaluating information. Individuals with this skill are aware of the information required and the source of the solution to any problem, accessing that source, and using and evaluating that information effectively (Kurbanoglu *et al.* 2006). However, individuals must be confident and willing to use these skills. This is connected to information literacy self-efficacy. Considering that self-efficacy is a person's judgment, perception, or belief about what extent s/he can do efficiently (Oguz 2012), information literacy self-efficacy can be explained as an individual's belief regarding their competence for obtaining, using, and evaluating information. Individuals must develop a positive perception of self-efficacy in terms of information skills in order to apply the information problem solving activities successfully and to be self-leading, self-motivating and lifelong learner (Akkoyunlu & Kurbaoglu, 2003). Similarly,

self-efficacy plays a critical role on information literacy skills. This is because individuals who are competent and confident about their information literacy skills will willingly undertake and easily solve information problems. Due to the increasing use of information and communication technologies (ICT) and the society's transition towards an information or knowledge society, new challenges have emerged (Anderson, 2008). Thus, the need for students to develop relevant skills and confidence in order to participate effectively in the digital age is constantly gaining importance. Therefore, a place should be given for activities that will develop students' information literacy self-efficacy and improving their lifelong learning skills. This will enable students to be information literate and self-confident to cope with the rapid information growth and to choose and use information in the most appropriate manner.

### **Objective of the Study**

The aim of the study is to determine postgraduate students' information literacy self-efficacy skills and to establish whether it differed significantly according to institutions.

### **Method**

In determining the postgraduate students' information literacy self-efficacy skills, the information literacy self-efficacy scale developed by Kurbanoglu, Akkoyunlu & Umay (2006) was used. The scale is composed of 7 factors and 28 items. However, the 7 factors were employed in this study. The questionnaire was used to solicit data on participants' information literacy self-efficacy skills. Participants were postgraduate students in the three Library Schools in South-South region of Nigeria namely Delta State University, Abraka; University of Calabar, Calabar and University of Uyo, Uyo which are the only institutions in the region accredited by the National University Commission (NUC) and the Librarians' Registration Council of Nigeria (LRCN) to offer Library and Information Programmes at postgraduate level.

### **Analysis of questionnaire data**

This section contains analysis of data from the administered questionnaires.

### **Study respondents**

This section contains the total number of questionnaires administered to the study population in the three institutions under study and the actual number of questionnaires completed and retrieved by the researcher. This is presented in Table 1.

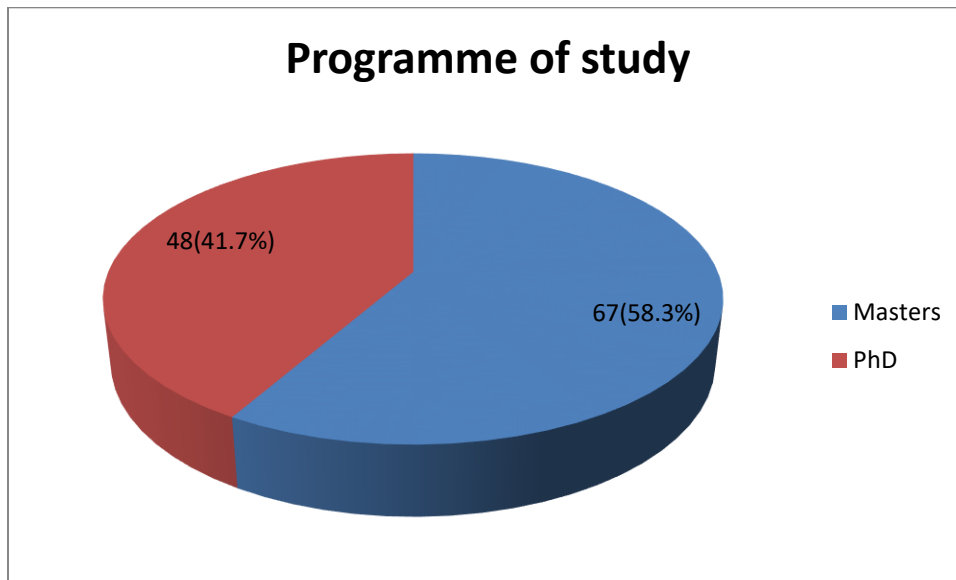
**Table 1: Response rate from the three institutions**

<b>Institutions</b>	<b>Expected Respondents (N=124)</b>	<b>Actual Respondents (N=115)</b>	<b>% of Actual Respondents</b>
DELSU	40	37	92.5
UNICAL	38	36	94.7
UNIUYO	46	42	91.3
<b>TOTAL</b>	<b>124</b>	<b>115</b>	<b>92.7</b>

Table 1 show that 115(92.7%) questionnaires were completed and retrieved by the researcher out of the 124 that were administered. Data analysis revealed that 37(92.5%) were returned from DELSU, 36(94.7%) from UNICAL and 42(91.3%) from UNIUYO. This indicates that UNICAL with 94.7% had the highest returns rate.

**Study programme of respondents**

Respondents were asked to indicate their programme of study. The results are presented in Figure 1.



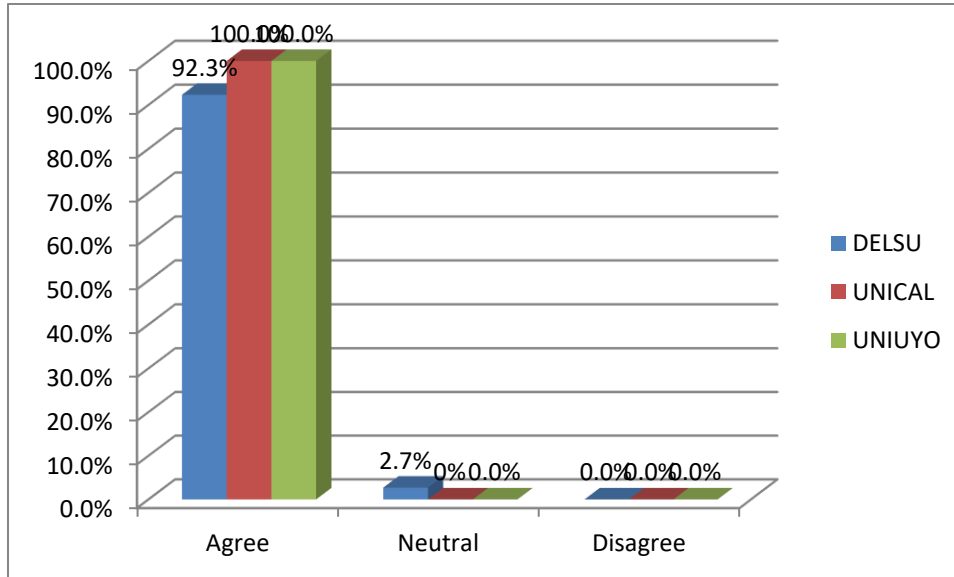
**Figure 1: Respondents’ programme of study (N=115)**

The responses revealed that 67(58.3%) were in Masters programme and 48(41.7%) were in PhD programme. The result shows that majority of respondents are in Masters programme.

## Results

In determining postgraduate students' information literacy self-efficacy skills, the information literacy self-efficacy scale developed by Kurbanoglu, Akkoyunlu & Umay (2006) was used. The scale is composed of 7 factors and 28 items. However, the 7 factors were employed in this study.

The results are presented below



**Figure 2: Defining the need for information (N=115)**

**Table 2: Chi-square test on defining the need for information**

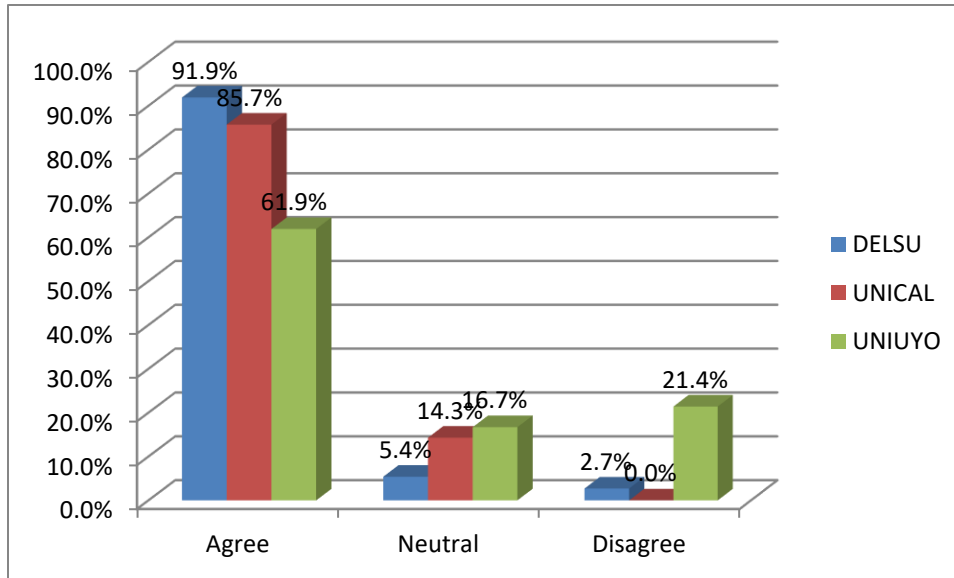
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.235 <sup>a</sup>	4	.693
Likelihood Ratio	2.395	4	.664
Linear-by-Linear Association	.075	1	.784
N of Valid Cases	115		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .31.

b.

Data obtained shows the distribution of respondents' ability in defining the need for information across the institutions. Data indicated that 36(92.3%) in DELSU were affirmative on their ability in defining the need for information with only 1(2.7%) neutral. UNICAL and UNIUYO recorded 36(100%) and 42(100%) agreed respectively. The result of the chi-square statistics in Table 2

shows that there is no significant difference ( $X^2 = 2.235$ ,  $N = 115$ ,  $df = 4$ ,  $p = 0.693$ ) in their ability in defining the need for information across the three institutions.



**Figure 3: initiating the search strategy (N=114)**

**Table 3: Chi-Square Tests on initiating the search strategy**

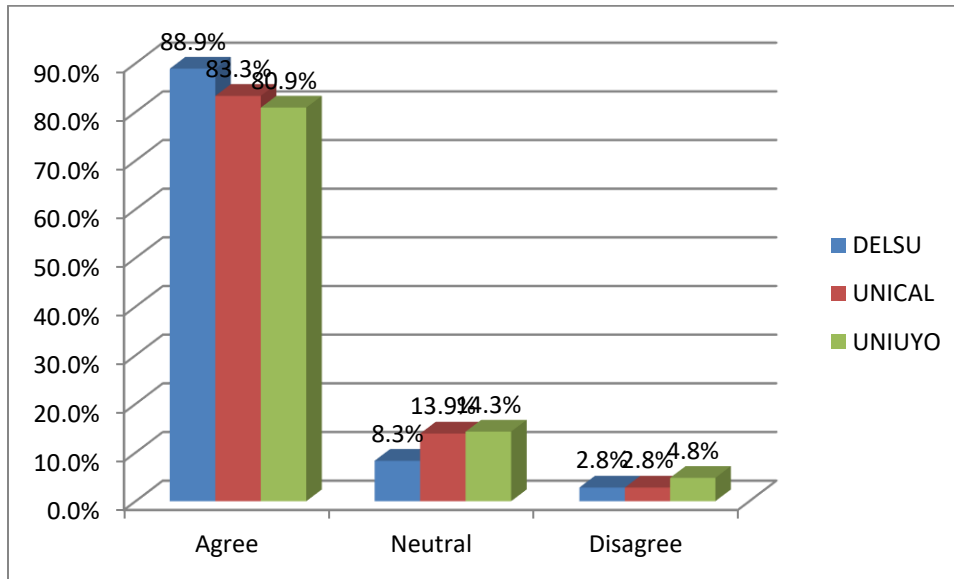
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.306 <sup>a</sup>	6	.008
Likelihood Ratio	19.099	6	.004
Linear-by-Linear Association	9.994	1	.002
N of Valid Cases	114		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is 3.07.

The responses revealed that majority of respondents 34(91.9%) in DELSU agreed on their ability to initiating the search strategy, 30(85.7%) and 26(61.9%) in UNICAL and UNIUYO respectively agreed. However, 1(2.7%) and 9(21.4%) in DELSU and UNIUYO disagreed respectively, while 2(5.4%), 5(14.3%) and 7(16.7%) in DELSU, UNICAL and UNIUYO were neutral respectively. The result of the chi-square statistics in Table 3 shows that there is a



significant difference ( $X^2 = 17.306$ ,  $N = 114$ ,  $df = 6$ ,  $p = 0.008$ ) in their ability in initiating search strategy.



**Figure 4: Locating and accessing the resources (N=114)**

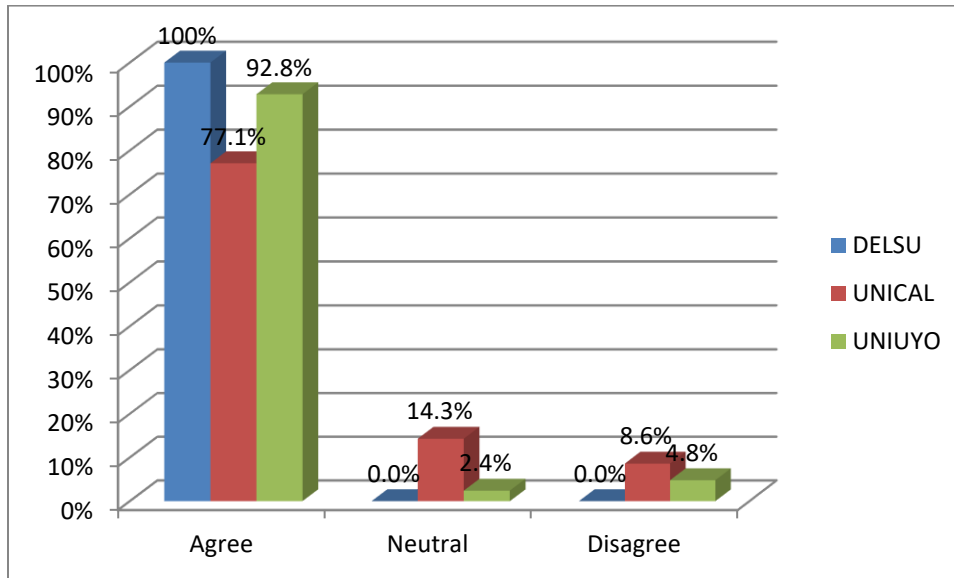
**Table 4: Chi-Square Tests on locating and accessing the resources**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.148 <sup>a</sup>	8	.631
Likelihood Ratio	7.133	8	.522
Linear-by-Linear Association	.008	1	.927
N of Valid Cases	114		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is .32.

Figure 4 indicated that 32(88.9%) in DELSU agreed on their ability in locating and accessing the resources. 30(83.3%) and 34(80.9%) of respondents in UNICAL and UNIUYO also agreed, while 3(8.3%), 5(13.9%) and 6(14.3%) in DELSU, UNICAL and UNIUYO were neutral. However, few respondents 1(2.8%), 1(2.8%) and 2(4.8%) in DELSU, UNICAL and UNIUYO disagreed respectively. The result of the chi-square statistics in Table 4 shows that there is no

significant difference ( $X^2 = 6.148$ ,  $N = 114$ ,  $df = 8$ ,  $p = 0.631$ ) in their ability in locating and accessing resources.



**Figure 5: Assessing and comprehending the information (N=114)**

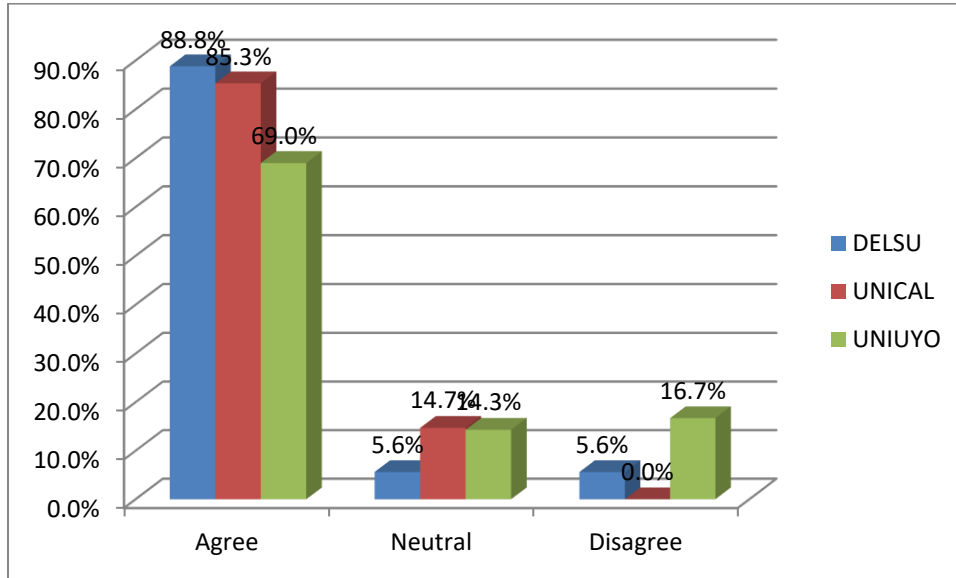
**Table 5: Chi-square tests on assessing and comprehending the information**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.691 <sup>a</sup>	8	.047
Likelihood Ratio	17.422	8	.026
Linear-by-Linear Association	.022	1	.882
N of Valid Cases	114		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .31.

With respect to the statement on respondents' ability in assessing and comprehending the information, all respondents 37(100%) in DELSU confirmed their ability in assessing and comprehending the information. Also, 27(77.1%) in UNICAL agreed, 5(14.3%) were neutral, while 3(8.6%) disagreed. Similarly, 39(92.8%) in UNIUYO agreed that they could assess and comprehend information, 1(2.4%) were neutral, while 2(4.8%) disagreed. Data obtained from

Chi-Square test in Table 5 shows that there is a significant difference ( $\chi^2 = 15.691$ ,  $N = 114$ ,  $df = 8$ ,  $p = 0.047$ ) in their ability in assessing and comprehending the information.



**Figure 6: Interpreting, synthesizing, and using the information (N=112)**

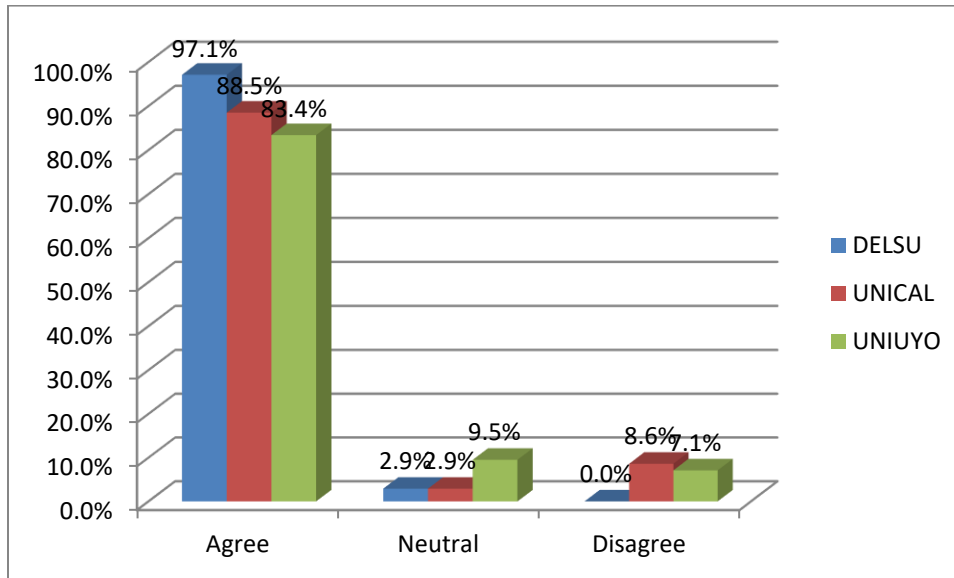
**Table 6: Chi-square tests on interpreting, synthesizing, and using the information**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.523 <sup>a</sup>	6	.051
Likelihood Ratio	14.643	6	.023
Linear-by-Linear Association	5.195	1	.023
N of Valid Cases	112		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is 2.73.

Figure 6 indicated that majority of respondents 32(88.8%) in DELSU were affirmative on their ability in interpreting, synthesizing, and using the information, 29(85.3%) and 29(69.0%) in UNICAL and UNIUYO respectively agreed. However, 2(5.6%) and 7(16.7%) in DELSU and UNIUYO disagreed respectively, while 2(5.6%), 5(14.7%) and 6(14.3%) in DELSU, UNICAL and UNIUYO were neutral respectively. The result of the chi-square statistics in Table 6 shows

that there is a significant difference ( $X^2 = 12.523$ ,  $N = 112$ ,  $df = 6$ ,  $p = 0.051$ ) in their ability to interpret, synthesize, and use information.



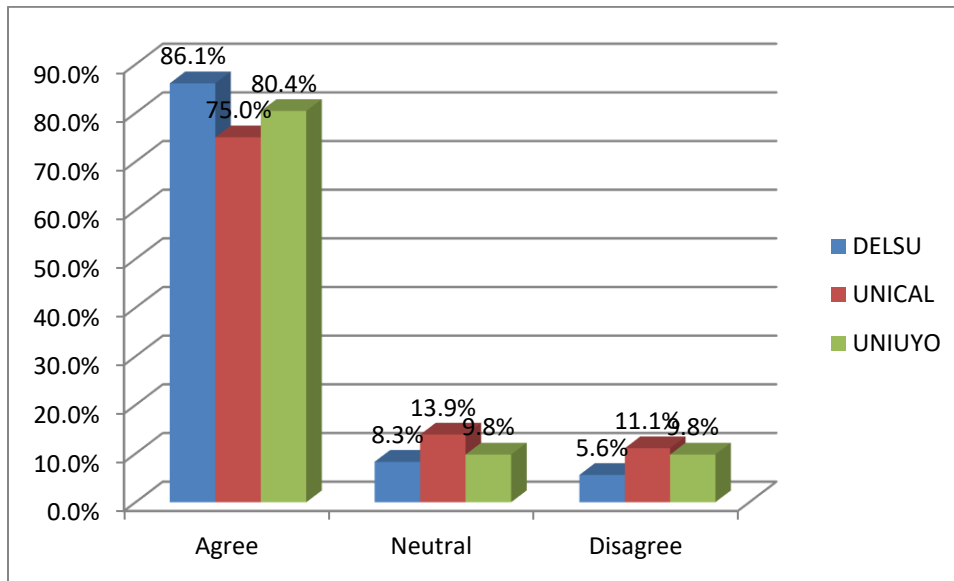
**Figure 7: communicating the information (N=112)**

**Table 7: Chi-square tests on communicating the information**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.009 <sup>a</sup>	8	.342
Likelihood Ratio	10.428	8	.236
Linear-by-Linear Association	1.357	1	.244
N of Valid Cases	112		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .31.

The responses revealed that 34(97.1%) respondents in DELSU agreed on their ability in communicating information. Similarly, 31(88.5%) and 35(83.4%) of respondents in UNICAL and UNIUYO agreed, while the duo of 1(2.9%) were neutral in DELSU and UNICAL, 4(9.5%) were also neutral in UNIUYO. However, 3(8.6%) and 3(7.1%) in UNICAL and UNIUYO disagreed. The result of the chi-square statistics in Table 7 shows that there is no significant difference ( $X^2 = 9.009$ ,  $N = 112$ ,  $df = 8$ ,  $p = 0.342$ ) on their ability in communicating information.



**Figure 8: Evaluating the product and process (N=113)**

**Table 8: Evaluating the product and process**

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.990 <sup>a</sup>	8	.858
Likelihood Ratio	4.647	8	.795
Linear-by-Linear Association	.121	1	.728
N of Valid Cases	113		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .96.

The responses revealed that majority of respondents agreed that they can evaluate information product and process. Figure 8 indicated that 31(86.1%) respondents in DELSU agreed on their ability to evaluate information product and process. Similarly, 27(75.0%) and 33(80.4%) of respondents in UNICAL and UNIUYO also affirmed their ability. However, 3(8.3%), 5(13.9%) and 4(9.8%) in DELSU, UNICAL and UNIUYO were neutral, while 2(5.6%), 4(11.1%) and 4(9.8%) in DELSU, UNICAL and UNIUYO disagreed. The result of the chi-square statistics in Table 8 shows that there is no significant difference ( $X^2 = 3.990$ ,  $N = 113$ ,  $df = 8$ ,  $p = 0.858$ ) in their ability to evaluate information product and process.

## **Conclusion and recommendation**

Information literacy self-efficacy is a core skill required for both academic achievement and also more broadly for effective intellectual functioning in an information dense world. Therefore, possessing information literacy self-efficacy skills have become crucial in our today information based world since such skills have become a fundamental determinant in coping and adapting to various information systems available to students. From the data generated, it is apparent that the postgraduate students across the three institutions possess information literacy self-efficacy skills. However, there is significant variation in their ability in initiating search strategy, assessing and comprehending the information as well as in their ability to interpret, synthesizing, and using the information. These three items recorded significant differences across the three institutions.

Therefore, the study recommends that information literacy self-efficacy should be given more attention especially in the use of metacognitive learning strategies that will enable postgraduate students manage information more appropriately. The use of metacognitive strategies shall enable learners to define the need for information; initiate the search strategy; locate and access the resources; assess and comprehend the information; interpret, synthesize and use the information; communicate the information as well as evaluate the product and process through interpreting information which are all dimensions of information literacy self-efficacy.

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