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## Academic Self-Efficacy and Information Needs Satisfaction of Undergraduates in Universities in South-West Nigeria.

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# **Academic Self-Efficacy and Information Needs Satisfaction of Undergraduates in Universities in South-West Nigeria.**

## **Abstract**

Provision of information services by university libraries to patrons has been around in Nigeria since the establishment of the first university library in 1948 and users' satisfaction has been a subject of research. However, studies on academic self-efficacy in relation to information needs satisfaction of patrons is rare. This study therefore investigated academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria. The design for the study was survey, involving multistage sampling technique. Two questionnaires were used to sample 1,086 undergraduates across three faculties in six universities in South-West Nigeria. 1,045 responses were analysed statistically. The study found that academic self-efficacy of undergraduates in universities in South-West Nigeria is high. The students also expressed satisfaction with their university libraries in meeting most of their information needs. There was however low positive (Pearson  $r = 0.059$ ) relationship between academic self-efficacy and information needs satisfaction of the students. This study concluded that, for academic self-efficacy of undergraduates in universities in South-West Nigeria to be higher, there is need for university administrators to make learning environment more conducive and make provision for more facilities on campuses. Also, university libraries should embark on extensive user education to equip users with the requisite skills needed to maximize the use of and satisfaction with the services provided.

**Keywords:** Academic self-efficacy, information needs satisfaction, university libraries, South-West Nigeria

## **Introduction**

Librarians have been involved in delivering instructions that not only teach university students basic searching skills but also inculcate in them a positive attitude and strong motivation to continue to practise those skills on their own (Wen-Hua, 2000). Such a positive attitude and self motivation, according to Badura (1997), can best be achieved by enhancing self efficacy, which means the belief of an individual in his or her capability to perform a specific task. University students need academic self-efficacy to be able to sieve gamut of information available to them through their mobile devices in order to satisfy their information needs.

Bandura (2018) proposed that perceived self-efficacy influences what coping behaviour is initiated when an individual is met with stress and challenges, along with determining how much effort will be expended to reach one's goals and for how long those goals will be pursued. It means that self-efficacy is a self-sustaining trait; when a person is driven to work through his problems on his own terms, he gains positive experiences that in turn boost his self-efficacy even more.

The methodology adopted by undergraduates in satisfying their various information needs may have positive or negative effect on their academic success (Chen et al., 2013; Mashhadi & Kargozari, 2011; Brown, 2011 and López, 2010). The effect may be negative if students spend most of their time online accessing resources that will not benefit them academically. At this point, it could be thought that their academic self-efficacy in using these technologies is important in order that their information needs can be satisfied and consequently lead to academic success.

How knowledgeable university students are stems majorly from the information acquired from teachers in classroom and studying on their own. In seeking needed information, information resources of university libraries are major primary sources for them. It is therefore not unusual for undergraduates who have high academic self-efficacy to go an extra length in satisfying their information needs. In modern societies, information is understood to be a key factor of any production endeavour.

Man, first and foremost, needs information on how to acquire all the other traditional "factors of production" which for the economist include capital, land, labour and man (Brynjolfsson & Hitt, 1995). This, therefore, presupposes that information is essential for the growth and developmental activities of individuals, groups, organizations and societies. It is a weapon that is vital for the survival of most of all human daily transactions in the process of decision making. For undergraduates, easy access to digital information raises concerns

related to whether they put forth the academic self-efficacy expected of them and if they know how to find scholarly resources that measure up to academic assignments (Denison & Montgomery, 2012).

Academic self-efficacy has been investigated in relation to various domains, including gender, academic motivation and academic success. However, there seems to be paucity of research on relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria. This study therefore, investigates academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria.

### **Purpose of the Study**

The main purpose of this study is to investigate the relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria. Specifically, this study is to:

- i. find out the level of academic self-efficacy of undergraduates in universities in South-West Nigeria;
- ii. find out the level of information needs satisfaction of undergraduates in universities in South-West Nigeria; and
- iii. Determine the relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria.

### **Scope of the Study**

This study covers academic self-efficacy of undergraduates, other form of self-efficacy such as computer self-efficacy are not part of this study. The information needs covered in this study is academic information needs, other information needs such as health

information needs are not part of this study. This study is limited to universities in South-West Nigeria; universities in five other geopolitical zones in Nigeria are not part of the study.

### **Research Questions**

This study provided answers to the following research questions.

1. What is the level of academic self-efficacy of undergraduates in universities in South-West Nigeria?
2. What is the level of information needs satisfaction of undergraduates in universities in South-West Nigeria?
3. What is the relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria?

### **Literature Review**

Self-efficacy is the belief we have in our own abilities, specifically our ability to meet the challenges ahead of us and complete a task successfully (Akhtar, Ghayas, & Adil, 2012). Bandura (2018) confirmed that self-efficacy is a differentiated set of self-beliefs linked to distinct realms of functioning, such as academic performance. Thus, academic self-efficacy is a set of individual beliefs regarding one's own academic competence, persistence, and motivation. It reflects an individual's confidence in his or her ability to complete academic tasks at the required level (Pajares & Schunk, 2001).

Bandura (2018) concluded that academic self-efficacy may predict students' learning engagement, and investment in and maintenance of effort. General self-efficacy refers to overall belief in our ability to succeed, but there are many more specific forms of self-efficacy as well (e.g., academic, parenting, sports). It is generally reported that individuals with higher self-efficacy perceive difficult tasks as meaningful challenges, despite the fact that others may find similar tasks discouraging. In Bandura's (1994) understanding, high self-

efficacy “fosters intrinsic interest and deep engrossment in activities” (p.71); on the contrary, a lack of self-efficacy may cause people to have low aspirations, slacken their efforts, and give up easily.

Academic self-efficacy is a construct that was developed within the context of Bandura’s social cognitive theory. It is the belief that students have about their abilities and skills as to acquire information and process them into knowledge. Student’s self-efficacy has become an important characteristic of the student and one strongly related to success in learning. Self-efficacy beliefs are among the knowledge structures that act as a pervasive influence on personal’s successful development especially in academic performance (Caprara, Barbaranelli, Pastorelli, & Cervone, 2004). Students’ judgments of their capability to perform academic tasks, that is, their self efficacy beliefs, predict their capability to accomplish such tasks (Bandura, 1984).

Zaied (2012) defined satisfaction as an overall affective response to a perceived discrepancy between prior expectations and perceived performance after consumption. In contrast, satisfaction should be judged based on the difference between prior expectations and actual performance after consumption. Thus, if performance after the use of a system or service exceeds expectation before use, one can say that satisfaction has been derived and vice versa. This is why the more satisfied a user is with a service, the greater his desire to continue utilizing the service. It is therefore obvious that use and satisfaction are vital and non-negligible variables in the assessment of the effectiveness of libraries’ e-services in meeting parent institutional goals as well as students’ expectations.

Information needs satisfaction is that sense of fulfilment that stems from locating information that contributes to understanding and meaning. University library has always serve as a major source for meeting the information needs of undergraduates and all other categories of patrons (Fatima & Ahmad, 2008). Information needs satisfaction is also a

process that entails getting the right answers by an inquirer from an information system, by performing such processes consciously or unconsciously. The amount of information available to an undergraduate at any given point in time may not be satisfying even though there is abundance of information. The right information, therefore, must be made available on time, accessible at the right location and in the most appropriate format.

According to Kakai, Ikoja-Odongo and Kigongo-Bukenya (2004) students' information seeking behaviour involves purposeful information seeking as a result of the need to complete course assignments, prepare for class discussions, seminars, workshops, and write final-year research papers. Taylor (2000) noted that the information sources (e.g. the library) that a user actually needs may not eventually tally with what is practically available, due to constraints either in the stock or the user's own inability.

## **Methodology**

The research design adopted for this research work is the survey research design. 372,000 undergraduates of the 42 universities in 6 states of South-West Nigeria constituted the population of this study. The multi-stage sampling technique was adopted to choose the sample for this study. A purposive choosing of six universities with one university per state was carried out. This purposive selection included two federal universities, two state universities and two private universities. These universities were chosen because of their year of establishment and developed state of information and communication technology infrastructures. The selected universities are those established not later than year 2001 and have Internet connectivity for their students.

Proportionate random sampling technique was used to choose 1.5% of the total population of undergraduate in each of the six universities. Proportionate random sampling method was considered suitable for the study because of the heterogeneous nature of the

number of undergraduates in the six universities as some have large number of undergraduate while others have not too large number. The 1.5% fraction is considered adequate for this study because Dierckx (2013) recommended that for an investigative study at 95% confidence level and high response rate the sample size can be between 1% and 5% of the total population.

The sample for each university was chosen across three faculties (Arts/Engineering, Science and Social Science/Environmental Science) with each faculty having equal representation. These three faculties were chosen because they are common to the six universities. The samples in each faculty were chosen through random sampling technique. The total sample size for this study amounted to one thousand and eighty-six (1,086).

The instruments for data collection are adapted University of Kansas Center for Research on Learning Academic Self-efficacy Scale and researcher-designed students' information needs satisfaction questionnaire. All items of the instrument for academic self-efficacy was measured at the nominal level using a five point Likert scale of 'Strongly Agree', 'Agree', 'Undecided', 'Disagree', and 'Strongly Disagree', while those of the instrument for information needs satisfaction were measured using 'Very Satisfied', 'Satisfied', 'Undecided', 'Dissatisfied' and 'Very Dissatisfied'.

To ensure that the instruments yielded valid data, they were assessed for face validity at the initial and modified versions. The internal reliability of the final versions was then assessed and confirmed adequate through the following Cronbach's alpha test statistics: academic self-efficacy scale (0.786) and information needs satisfaction (0.841).

## Results

### Response Rate

Table 1: Responses from the six sampled universities

| S/<br>N      | University                                       | Science    | Arts/Engineering | Social<br>Science/Environmental<br>Tech | Total        |
|--------------|--|------------|------------------|---|--------------|
| 1            | University of<br>Ibadan                          | 62         | 59               | 61                                      | <b>182</b>   |
| 2            | Federal<br>University of<br>Technology,<br>Akure | 71         | 70               | 73                                      | <b>214</b>   |
| 3            | Ekiti State<br>University                        | 72         | 73               | 70                                      | <b>215</b>   |
| 4            | Lagos State<br>University                        | 92         | 90               | 91                                      | <b>273</b>   |
| 5            | Babcock<br>University                            | 35         | 33               | 32                                      | <b>100</b>   |
| 6            | Bowen<br>University                              | 20         | 21               | 20                                      | <b>61</b>    |
| <b>Total</b> |  | <b>352</b> | <b>346</b>       | <b>347</b>                              | <b>1,045</b> |

**Research Question 1:** What is the level of academic self-efficacy of undergraduates in universities in South-West Nigeria?

**Table 2 Academic Self-efficacy**

|                                     | N    | Minimum | Maximum | Mean   | Std. Deviation |
|-------------------------------------|------|---------|---------|--------|----------------|
| Figure out anything                 | 1045 | 1.00    | 5.00    | 4.6325 | .72112         |
| Develop just any skill              | 1045 | 2.00    | 5.00    | 2.2593 | .67062         |
| Achieve academic goals              | 1045 | 1.00    | 5.00    | 3.6593 | .55253         |
| Focus on progress                   | 1045 | 2.00    | 5.00    | 4.2794 | .63307         |
| Succeed in career                   | 1045 | 2.00    | 5.00    | 3.5990 | .66451         |
| Succeed in University courses       | 1045 | 1.00    | 5.00    | 4.4172 | .90215         |
| Hard work pays off                  | 1045 | 3.00    | 5.00    | 4.6813 | .57974         |
| Ability grows with effort           | 1045 | 3.00    | 5.00    | 4.4000 | .63336         |
| Brain develops as muscle            | 1045 | 2.00    | 5.00    | 2.2775 | .85069         |
| You can change your level of talent | 1045 | 2.00    | 5.00    | 4.4373 | .69835         |
| Change basic level of ability       | 1045 | 3.00    | 5.00    | 4.2995 | .64122         |
| i can learn what is taught          | 1045 | 3.00    | 5.00    | 4.6785 | .50852         |
| Keep trying to accomplish a task    | 1045 | 2.00    | 5.00    | 4.5187 | .75613         |
| Valid N (listwise)                  | 1045 |         |         |        |                |

The level of academic self-efficacy of undergraduates in universities in south-west Nigeria is high. Most of the constructs that were used to determine academic self-efficacy returned high mean values ( Table 2). Majority of the students believe in hard work (Mean = 4.68), can learn whatever they are taught (Mean=4,67), figure out anything (Mean=4.63), keep trying to accomplish a task (Mean=4.51) and succeed in university courses (Mean=4.41). The mean scores for some constructs such as ability to develop just any skill (Mean=2.25) and brain develops as muscle (Mean=2.27) are however low. This means that the academic self-efficacy of the students in these areas is low.

**Research Question 2:** What is the level of information needs satisfaction of undergraduates in universities in South-West Nigeria?

**Table 3: Information Needs Satisfaction**

|   | N    | Minimum | Maximum | Mean   | Std. Deviation |
|---|------|---------|---------|--------|----------------|
| Information on workshop                             | 1045 | 1.00    | 5.00    | 2.2086 | 1.41032        |
| Information on course registration                  | 1045 | 1.00    | 5.00    | 3.5483 | 1.36837        |
| Academic time table                                 | 1045 | 1.00    | 5.00    | 3.1904 | 1.40576        |
| Resources on career prospects                       | 1045 | 1.00    | 5.00    | 2.3086 | 1.20858        |
| Social interaction platforms on university websites | 1045 | 1.00    | 5.00    | 2.1699 | 1.30952        |
| Electronic resources for assignment                 | 1045 | 1.00    | 5.00    | 3.6900 | 1.24858        |
| Electronic resources for study                      | 1045 | 1.00    | 5.00    | 3.9880 | 1.17031        |
| Electronic Resources for seminar                    | 1045 | 1.00    | 5.00    | 3.4880 | 1.17977        |
| Platform for group discussion                       | 1045 | 1.00    | 5.00    | 2.3292 | 1.28309        |
| Electronic resources for research                   | 1045 | 1.00    | 5.00    | 3.7493 | 1.17048        |
| Printed material for assignments                    | 1045 | 1.00    | 5.00    | 3.9301 | 1.16950        |
| Printed materials for study                         | 1045 | 1.00    | 5.00    | 3.9703 | 1.17121        |
| Valid N (listwise)                                  | 1045 |         |         |        |                |

The results in Table 3 show the level of information needs satisfaction of undergraduates in universities in South-West Nigeria. The students expressed satisfaction with electronic resources for study (Mean=3.98), printed materials for study (Mean=3.97), electronic resources for research (Mean=3.74), electronic resources for assignments (Mean=3.69) (Mean=3. information on course registration (Mean=3.54), electronic resources for seminar (Mean=3.48). The students were however dissatisfied with information need on workshop (Mean=2.20), career prospects (Mean=2.30), platforms on websites for social interaction (Mean=2.16) and platform for group discussions (Mean=2.32).

**Research Question 3:** What is the relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria?

**Table 4: Pearson r on relationship between academic self-efficacy and information needs satisfaction**

| Source of Variation            | N    | Academic Self-efficacy | Information needs satisfaction | Remarks                        |
|--------------------------------|------|------------------------|--------------------------------|--------------------------------|
| Academic Self-efficacy         | 1045 | 1                      | .059                           | Very low positive relationship |
| Information needs satisfaction | 1045 | .059                   | 1                              |                                |

The composite scores on academic self-efficacy and information needs satisfaction were subjected to test of relationship; the analysis result is summarized and presented in Table 4. The result shows that there is a very low positive relationship between academic self-efficacy and information needs satisfaction of undergraduates.

### Discussion

The result from research question one shows that academic self-efficacy of undergraduates in universities in South-West Nigeria is high. This result is expected because South-West Nigeria consists of most of the high ranking universities in Nigeria where there are serious academic interventions. This result is consistent with the finding of Banks, Hsiao, Gordon and Bordelon (2019) who found out that there was high academic self-efficacy among students with high school interventions. Similarly, Celik (2015) posits that good students support leads to high academic self-efficacy. However, the environment of lack of some basic amenities that undergraduates in South-West Nigeria find themselves may be responsible for low academic self-efficacy in the areas of ability to develop any skill and brain development as muscles.

The result from research question two shows that students were satisfied with most of the information they got from their university libraries for their academic needs. The need for university libraries in Nigeria to remain relevant in the business of information provision has enabled them to be more efficient in meeting the information needs of their patrons, most of whom are undergraduates. This is in agreement with Zaied (2012) who posits that use and user satisfaction are vital and non-negligible variables in the assessment of the effectiveness of libraries' e-services.

The result from research question three indicates that undergraduates' academic self-efficacy has a direct relationship with their information needs satisfaction. In other words, as academic self-efficacy of undergraduates increases, the more they are able to access information that will satisfy their needs. Undergraduates who have the drive to succeed on their own will put in the extra effort needed to satisfy their information needs and vice versa. This result of the relationship between academic self-efficacy and information needs satisfaction of undergraduates in universities in South-West Nigeria is expected because it is in agreement with the findings of other related studies. Such studies include Terada and Kawamotor (2017) who examined the influence of rejection sensitivity and need satisfaction (autonomy, competence, and relatedness) on learning strategy and self-efficacy. The study found that competence satisfaction mediates the relationship between rejection sensitivity and self-efficacy.

The result obtained for research question three is also similar to that of Marie-Lourdes (2012), who investigated the role of self-efficacy in the information-seeking behaviour of high school students in Mauritius. Results obtained suggested a positive relationship between self-efficacy beliefs and information-seeking behaviour.

## **Conclusion**

The findings of this study present several implications both for theory and practice. University libraries are platforms for converging technologies and professions in order to deliver effective library services to their multidisciplinary patrons irrespective of time and place, but such services and the processes through which they are delivered should be programmed to satisfy information needs of patrons. The present study contributes to the theory by examining the relationship between students' academic self-efficacy and their information needs satisfaction.

For academic self-efficacy of undergraduates in universities in South-West Nigeria to be higher, there is need for university administrators to make learning environment more conducive and make provision for more facilities on campuses. Regardless of the commonly accepted recognition of the contribution of academic self-efficacy to students' success, the persistent gap in the reported academic achievements between them and typically achieving students, as well as their lower perceptions of competence and hope, should alert support providers to pay more attention to the entire spectrum of students' emotional needs.

University libraries should embark on extensive user education to equip users with the requisite skills needed to maximize the use of and satisfaction with the services provided. The continuous evaluation of the services provided by university libraries will, according to Ramos and Abrigo (2011), help to define quality services and introduce new assessment indicators for repositioning library services towards patrons' satisfaction.

As undergraduates academic self-efficacy increases, the need for libraries and other information services' providers to implement information systems that provide quick and easy access to information, irrespective of when and where an undergraduate places demand for information, becomes paramount if university libraries are to retain their users and stay relevant in an information-driven society that has become highly competitive. Such systems

must be flexible, readily available, easy to use and robust in terms of the e-services that are delivered to users.

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