

Information Literacy Skills as a Predictor of Undergraduates' Creativity in Selected Federal Universities in Southwestern Nigeria

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Abstract The study, investigated information literacy skills as correlates of undergraduates' creativity in selected federal universities in southwestern Nigeria. Purposive sampling technique was used to select three common faculties from three first generation federal universities (University of Ibadan, Ibadan, University of Lagos, Lagos and Obafemi Awolowo University, Ile-Ife in southwestern Nigeria). Multistage sampling technique was used to select the sample population. The instruments for data collection were self-administered questionnaire and focus group discussions (FGDs). The proportionate to size technique was used to select 1318 undergraduates. Data were analysed using descriptive statistics, Pearson's product moment correlation and multiple regression at 0.05 level of significance and thematic respectively. The findings of the study showed that Information literacy skills ($r=0.35$) had significant positive relationships with undergraduates' creativity. Also, revealed that Information literacy skills ($\beta=0.28$) contributed to undergraduates' creativity. The study concluded that Information literacy skills influenced undergraduates' creativity in federal universities in southwestern Nigeria. The study recommended that universities administrator should not relent efforts in sustaining high levels of information literacy skills and creativity among undergraduates in the three selected federal universities in Nigeria, in order to prepare them for attaining good academic success that would make them relevant in their fields of knowledge and society at large.

Keywords Information literacy skills, Southwestern, Undergraduates' creativity, Universities

1. Introduction

Creativity is invaluable to undergraduates and as such cannot be undermined, especially in the 21st century. Leone (2020) as cited in Naveed, Igbal, Asghar, Shaukat and Seitamaa-Lakkarainen (2023) asserted that students are required to develop creative skills to survive and compete for employability in modern enterprises to achieve organizational goals, viable competitive advantage, and improve organizational performance and effectiveness. Creativity has been reported by scholars to be low among undergraduates in Nigeria. The reason being that creativity among undergraduates in Nigeria has been undermined because it is not explicitly integrated into the nation's educational curriculum; subsequently, undergraduates are unable to activate their creative potentials. As such as many lack critical thinking skills and are incompetent in carrying out independent work with a touch of creativity.

In addition, the resultant effects of this low level of creativity include: lack of entrepreneurial intention, career

immaturity, poor goal setting and "get-rich quick syndrome" among others. Creativity is a very broad concept which has been subjected to various definitions. However, the concept still needs to be defined in order to establish a functional meaning and thereby create an insight for proper understanding and connection.

Edokpolo (2016) defined creativity as the ability to produce through imaginative skill, create, invent, make and bring into existence something new. This submission was corroborated by Innaway (2019) who asserted that creativity is the act of channelling ones imagination into something concrete or real. Psychologists have had great difficulty reaching a consensus as to definitional components that reach beyond these two criteria of novelty and appropriateness (value) (Hennessey & Amabile, 2010). Therefore, creativity could be defined as the ability to produce ideas or products that are both novel and valuable. Ebong & Atamewan (2014) had blamed poor design output by a preponderance of undergraduates on inadequate creativity by Architectural students in the University of Uyo, Nigeria.

According to Dimnwobi & Ekesiobi (2016), Nigeria was not ranked in the 2015 global creativity index because the criteria for creativity ranking was not fulfilled. Meanwhile other relatively smaller African countries such as Kenya, Cameroon, Niger, Uganda, and Malawi were all ranked. No

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nation can experience sustainable development beyond the level of the creativity of its citizens. Evidently, creativity could be exploited and expressed for individual benefit and that of the society. According to Heriyanto, Yanuar Yoga Prasetyawan, Yuli Rohmiyati (2020), academic work may come in different forms, such as a result students should have good information skills that enable them to understand the topic of their assignment and solve related problems.

In a German study Bruce (2017) dwelt on cognitive aspect of searching and evaluating information and affirmed the importance of information literacy skills to undergraduates in digital age. This was corroborated by Yevelson-shorsher & Bronstein (2018) who described information literacy skills as crucial skills for academic work. The skills enable undergraduates to sieve through enormous amounts of information which is often unreliable, unfiltered and unsupported. Consequently, it has become more imperative for undergraduates to acquire the skill in order to obtain accurate information to produce ideas that are both novel and valuable.

Information literacy skills are essential abilities to determine information need, find, evaluate, use and understand the legal ethical and economic issues of information use. Thus, in fostering undergraduates 'creativity, information literacy cannot be undermined. Many available researches have dwelt more on creativity models and definitions, graduates and employees' creativity. However, there is a dearth of studies on information literacy skills as predictors of undergraduates' creativity. This study set out to bridge that gap. It was against this backdrop that this study investigated computer and information literacy skills as predictors of undergraduates' creativity in selected federal universities in southwestern Nigeria.

2. Literature Review

Creativity could spur the interest of undergraduates to greater productivity which could result to ground-breaking performance in their various fields of study. Undergraduates with high creative potentials could be able to set realistic and achievable life goals and objectives. Creativity empowers undergraduates to acknowledge change and novelty, eagerness to entertain thoughts and conceivable outcomes, an adaptability of viewpoint, the propensity for appreciating the great, while searching for approaches to enhance it.

Some countries have realised the importance of creativity for students at all levels of education and have therefore, reformed their educational systems to include more creativity content in the undergraduate curriculum. For instance, in a study of United States undergraduates' creativity in the Colorado School of Mines, Patrick, Vincent, Kowalski and Kowalski (2011) affirmed that they have begun teaching an elective Physics course dedicated to improving the creativity of undergraduates in the Colorado School of Mines. Conversely, in an exploratory study of Australian undergraduates, Heidt (2015) found that all

respondents responded negatively to the question on creativity explicitly taught in the curriculum and asserted that of all the universities under study, there was no evidence of an aligned course designed in relation to creativity-oriented learning outcomes. Creative thinkers are needed globally in all disciplines who should be individuals that can handle difficult challenges and provide ground-breaking solutions to the world problems (Klawe, 2017).

Alizamar, Ifdil-Ifdil and Syahputra (2019) found that the overall creativity of Universitas Negeri padang (UNP) was fairly high. In the same vein, Oniye (2020) found that the undergraduate's creativity level of Kwara universities was average. In a Canadian study of undergraduates' creativity, Zizic, Cranic and Lukie (2017) found that some educational institutions are yet to give serious attention to the concept of creativity in the academic programme. In the same vein, in a study of Nigeria universities, Oniye (2020) also asserted that many Nigerian graduates are regarded as unemployable and far behind in contributing to the development of their society compared to their counterparts around globe. Recently, National Bureau of Statistics (2022) report indicated that the unemployment rate is 37.7%, which is an indication that the rate of unemployment in the nation is quite alarming and as such drastic action must be taken in order to avert imminent calamity. There is therefore, the need for rapt attention to enhance undergraduates' creativity to save them from unnecessary anxiety of unemployment upon graduation and also make them more relevant globally. Klawe (2017) suggested some strategies to foster undergraduates' creativity, universities should design creativity-supportive courses which may include changing elements of session or changing elements of the university curriculum.

Howard (2012) believed that the information literate undergraduates should have attributes of judgment, responsibility, and the skills to amalgamate and generate new facts or knowledge that could enhance creative outcome. It is evident that accessing quality information would go a long way in the creative process of undergraduates. Amegashie and Ankamah (2020) affirmed that the acquisition of information literacy skills empowers students to understand the content, extent their research and assume greater control over their learning. Kowalsky & Baer (2021) opined that information literacy involves the complex skills and understandings needed when seeking, evaluating, selecting and using information for a particular purpose. Thus, possession of information literacy skills will enable undergraduates to develop and enhance critical thinking skills which are essential abilities to analyse the way one thinks and presents evidence for one's ideas. In a study of undergraduates of Pakistan, Naveed, Iqbal, Asghar, Shaukat and Kishwer (2023) found that information literacy of medical students had a direct and indirect positive influence on the respondents' creative skills.

Contrarily, Amegashie and Ankamah (2020) reported that undergraduates of Ghana Business school, Legon and Ghana and Ghana Institute of Management and Public Administration Business School were not information

literate. However, the study found that information literacy has a significant connection with creativity. Critical thinking is the core of information literacy, Rayhanul (2015) asserted that critical thinking promotes creativity and cognitive flexibility.

Objectives of the study

The objectives of this study are to:

1. determine the level of information literacy skills possessed by undergraduates in federal universities in southwestern Nigeria;
2. find out the level of creativity of undergraduates in federal universities in southwestern Nigeria;
3. find out the relative contributions of computer literacy skills and information literacy skills to the creativity of undergraduates in southwestern Nigeria.

Research questions

The following research questions were answered in the study.

1. What is the level of creativity of undergraduates in federal universities in southwestern Nigeria?
2. What is the level of information literacy skills possessed by undergraduates in federal universities in southwestern Nigeria?

Hypothesis

The following null hypothesis was tested at 0.05 level of significance:

There is no significant relationship between information literacy skills and undergraduates' creativity in the three selected federal universities in southwestern Nigeria.

3. Methodology

The study was carried out in Lagos, Oyo and Osun in southwestern, Nigeria. Institutions involved were the University of Lagos, University of Ibadan, and Obafemi Awolowo University. The study adopted a descriptive survey design of the correlational type to obtain data on information literacy skills and undergraduates' creativity in three federal universities in southwestern Nigeria. The study population comprised all 300 level undergraduates (14,440) in the selected universities. Multi-stage sampling technique was used to obtain the sample size of the study.

Participants in this study comprised 1169 (males 610=52.2%; female 559=47.8%) undergraduates from the three selected universities. Out of the 1,318 copies of questionnaire administered, 1,169 were properly filled and analysed giving a response rate of 88.7% which was considered to be adequate for the study. Ethical issues such as voluntary participation and confidentiality of responses and anonymity of respondents were duly ensured by the researchers. Data obtained through questionnaire was analysed using the Statistical Package for Social Sciences (SPSS) version 21.

Data collected was analyzed using simple descriptive statistics (frequency distribution, means and percentages). Cronbach Alpha method was used to calculate the reliability coefficient of the instrument which was 0.81. FGD analysis was based on the major themes identified in the study (undergraduates' creativity, self-concept, computer literacy skills and information literacy skills). FGD data was analysed thematically using content analysis.

4. Results and Discussion of Findings

Table 1. Test of norm on the creativity assessment levels as perceived by the undergraduates in federal universities in southwestern Nigeria

Interval	Range	level	Frequency	Percentage
1-50		Low	30	2.6
51-100	73.57	High	1139	97.4

Grand Mean = 73.57

Maximum score = 100

Interval = 100 = 50, Classification = High, Low

Results show that only 30 (2.6%) of the respondents possessed a low level of creativity, 1139 (97.4%) had a high level of creativity, which is suggestive of the fact that the creativity level of the respondents is high.

Table 2. Test of norm on the levels of information literacy skills possessed by the respondents

Interval	Range	level	Frequency	Percentage
1-50		Low	58	5.0
51-100	81.31	High	1111	95.0

Grand Mean=81.31

Maximum score=100

Interval=100/2=50, classification=High and Low

Study respondents 1111(95.0%) majorly indicated a high level of IL skills with only 58(5.0%) of the respondents possessing low levels of information literacy skills. It can therefore be deduced that the level of information literacy skills possessed by the respondents of this study is high.

Table 3. Contribution of information literacy skills to undergraduates' creativity in federal universities in southwestern Nigeria

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta Contribution		
(Constant)	49.039	1.880		26.081	.000
Information literacy skills	.227	.029	.286	7.871	.000

Table 3 presents the contribution of information literacy skills to creativity, expressed as beta weights. Information literacy skills ($\beta = .286$, $p(.000) < .05$). The implication is that information literacy skills independently predict creativity among the undergraduates in the study.

Table 4. Relationship between information literacy skills and undergraduates' creativity in federal universities in southwestern Nigeria

Variable	Mean	Std. Dev.	N	r	P	Remark
Information Literacy Skills	81.3062	12.5382	1169	.354*	.000	Sig.
Undergraduates' Creativity	73.5749	9.9542				

*Sig. at .05 level

Table 4: shows a positive statistically significant relationship between information literacy skills and undergraduates creativity in selected federal universities in South-Western, Nigeria ($r = .354^*$, $N = 1169$, $p < .05$). The null hypothesis was therefore rejected. The implication is that an improvement in the undergraduates' creativity in federal universities in southwestern Nigeria is a function of increased levels of information literacy skills possessed by study respondents.

FGDs question 1

How can you rate your creativity level?

When asked their opinions on their creativity level, the FGD discussants clearly opined that they had high level of creativity which supported the results of the quantitative survey.

The following are the some of the submissions of the participants of FGDs from the three selected universities about their creativity level:

"Creativity is just like talent or potential. It deals with self-discovery. Most undergraduates have not discovered their talents. They have the singular attitude of coming to the university, graduate and get employed. I think the number one problem is self-discovery. Creativity level will be better when there is self-discovery. My level of creativity should be 80%"

(22-year-old 300L OAU female discussant)

"Creativity gives one an edge on how to search for information. If we are given an assignments in class everybody goes to a particular website to copy forgetting that, you can be creative by searching for other useful websites and bringing out new things from what you can read and deduce without copying word-for-word from the site" My creativity level is 90%

(24-year-old 300L UNILAG male discussant)

"Creativity is an important quality that learners must possess and I will approach it from two points. Creativity as an educational concept where we are taught some things: it takes creativity to take theoretical knowledge and merge with practical knowledge in order to understand fully; also some level of creativity is needed to understand abstract topics. From elementary to tertiary education creativity is necessary". My creativity level must be 80%"

(23-year-old 300L UI female discussant)

"It takes creativity to break down topics to pupils for them to understand, draw up hypothetical situations, and make learning aids and so on." I want to rate my creativity level to be 90%"

(22-year-old 300L OAU male discussant)

It is observed that the discussants acknowledged the importance of creativity and rated their creativity level as high.

Discussion of findings

Findings of the study revealed that creativity level of the undergraduates was high. Focus group discussions substantiated the quantitative finding that undergraduates' creativity was high. High level of undergraduates' creativity cannot be unconnected to an increased awareness of the importance of creativity by 21st century undergraduates. The findings support Kirsi, et.al (2017) submission that creativity has been one of the most important competences that undergraduates must acquire during their training in the universities. More importantly, creativity is now required in all sectors of the economy because it is seen to be the foundation of all innovations which all and sundry are clamoring for Dimnwobi & Ekesiobi, (2016) corroborate the opinion of Narayan (2012) that creativity is crucial to economic growth and is invaluable to society.

Ambali (2016) asserted that creativity still remains an essential tool to solve complex problems and is an important means for value creation. It is evident that the undergraduates had not remained inside the "box", but strived to think-out-of-box consistently in order to generate creative ideas that would be of great value and original. Both qualitative and quantitative findings affirmed that the respondents' creativity level was high. Thus, there is an indication that the undergraduates would have an edge over previous generations pertaining to job opportunities. Moreso, the importance of creativity as an antidote to the problem of unemployment has been generally acknowledged. Adeyanju (2015); Sadiq-Mabeko (2016) have affirmed that the high level of graduate unemployment in the country has been blamed on the lack of creativity among youths. Therefore, it is a remarkable development among undergraduates to overcome the menace of unemployment in Nigeria.

Findings of this study also revealed that the level of information literacy skills of the respondents was high. Conversely, the study of Boise State University institution team (2016) found that undergraduates' information literacy skills was inadequate. Interestingly, the study is in consonance with the findings of Okon, Etuk, Akpan (2014) who found that the undergraduates' information literacy skills level was relatively high. The likely explanation for the high level of information literacy skill possessed by the undergraduates could be as a result of the acknowledgement of the acquisition of the skills as essential tools to accomplish great tasks in their course work and make informed decisions on any task. In addition, lack of adequate information literacy skills could be more grievous if an undergraduate does not possess abilities to obtain accurate, timely,

information which could enhance his creativity level.

The relationship between information literacy skills and undergraduates' creativity in selected federal universities in southwestern Nigeria was found to be significant. The study has shown that information literacy skills predicts undergraduates' creativity. The implication is that undergraduates' high level of creativity is predicted by the information literacy skills proficiency of undergraduates. Therefore, information literacy skills play a crucial role in the fostering of undergraduates' creativity. This further substantiates the submission of Rayhanul (2015) that critical thinking promotes creativity and cognitive flexibility with critical thinking being at the core of information literacy skills. Supporting the relationship between information literacy skills and undergraduates' creativity level, Hepworth (2015) has described information literacy as a concept that is relevant in all disciplines with the term being widely used across various disciplines.

5. Conclusions

Information literacy skills contributed significantly to undergraduates' creativity levels in federal universities in southwestern Nigeria. There is a clear indication that information literacy skills are more crucial to undergraduates' creativity, as critical thinking and problem solving are the core of information literacy as well as creativity. There exists a positive statistically significant relationship between information literacy skills and undergraduates' creativity.

6. Recommendations

The following recommendations are proffered based on the findings of the study:

1. Universities administrator should not relent efforts in fostering undergraduates' creativity in order to prepare them for attaining good academic success that would make them relevant in their fields of knowledge and society at large.
2. University administrators should continue to provide enabling environments that would sustain the relatively high level of undergraduates' information literacy skills in universities in Nigeria. Since, undergraduates' self-concept increases in the university's environment.

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