

Influence of Area of Specialisation on Undergraduates' Access to and Attitude Towards the Utilisation of Social Media for Learning in South-West, Nigeria

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Abstract

The main objective of this study was to investigate influence of area of specialisation on undergraduates' access to and attitude towards the utilisation of social media for learning in Nigeria. The study investigated i. influence of area of specialisation on undergraduates' access to social media for learning and ii. influence of area of specialisation on undergraduates' attitude towards social media for learning. The study was a descriptive research of the survey method using stratified, proportional and random sampling techniques to draw a sample of 1,121 (592 males and 529 females) undergraduates from target population of 205,083 in nine universities in South-west, Nigeria. The main research instrument employed for data collection was a validated adapted questionnaire. Two research hypotheses were formulated and tested in the study using Analysis of Variance (ANOVA) at 0.05 significant level. The findings of the study indicated that there was significant difference in undergraduates' access to social media for learning based on area of specialisation with $F (df 3, 1,117 = 4.98, p < 0.05)$ in favour of education and there was significant difference in undergraduates' attitude towards social media for learning based on area of specialisation with $F (df 3, 1,117 = 12.04, p < 0.05)$ in favour of social sciences

Keywords: Access; Attitude; Area of Specialisation; Social Media; Undergraduates; Utilisation.

Introduction

Education is generally recognised as an important component of the development process. Hence, it is referred to as knowledge or skill acquired or developed through learning processes or activities and resources that support learning. However, an educated society is the one where growth, development and innovation are achieved by the best use of Information and Communication Technology (ICT). Learning is defined as the process of bringing about proportionally permanent change in the behaviour of individuals based on the interactional experience of such individuals with the environment, the learning can take any of these forms; formal (structured) learning, non-formal learning and informal leaning (Flad, 2010). Social media are types of electronic communication platforms using ubiquitous interpersonal relationships and communication, thereby enabling millions of users to actively engage in social media, text messaging, blogging, content sharing, online learning, and so on (Qingya, Wei & Yu, 2011). Henderson, Auld and Johnson (2014) asserted that social media allow ground-breaking instructional techniques in classrooms by making use of salient features of text collaborative construction, and equally constitute a number of ethical dilemma for students and instructors, thus the need for this study.

Literature Reviews

Area of specialisation is the chosen discipline or career of an undergraduate while in the university where he or she will eventually have his/her certificate. So, a graduate of physics is said to be specialized in science after graduation. However, it is assumed that people with science orientation or background are likely to have good knowledge with better understanding of ICT devices and this will make them use it more often and proficiently (Psunder and Virtic, 2010). In this study, area of specialisation is classified as: Arts, Education, Sciences and Social Sciences. Area of specialisation was described as a factor that has a strong connection to the use of ICT in education, hence, the particular differences of individual subject areas; the use of ICT differs among them (Psunder and Virtic, 2010). In a study conducted by Al-Sharqi, Hashim and Kutbi (2015) on perceptions of Impact of Social Media on Students' Social Behaviour, it was indicated that Arts student are mostly known with and engrossed in social media use; the findings as well indicated that Science group have respect for other peoples' opinions while the Arts group emphasized on freedom of expression.

Acar (2013) conducted an exploratory study on attitudes toward blended learning and social media use for academic purposes. The study indicated better attitude towards using social media for education in favour of Statistics and Global Business students. This indicated that area of specialization played greater role on their attitude towards the use of social media for education. Alison (2013) studied Student Attitudes towards Social Networks and Learning Modalities, it was found out that students' major/specialisation does not have any influence on students' attitude towards using social network for learning. Al-Khaddam (2013) in a study to investigate impact of social networks on interpersonal communication of the students of university college Irbid girls found no statistically significant differences related to impact of Facebook use on the students' interpersonal communication due to their specialisation. However, these varying findings among researchers bring to bear the need to further investigate the influence of undergraduates' area of specialisation on their access to and attitude to the use of social media for learning.

Materials and Methods

Research Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in undergraduates' access to social media for learning based on area of specialisation.
2. There is no significant difference in undergraduates' attitude towards social media for learning based on area of specialisation.

Sample and Sampling Techniques

The population for the study comprised all undergraduates in Universities in South-west. The target population was all undergraduates in selected federal, state and private Universities located in the South-western states in Nigeria. Stratified sampling technique was used to classify the Universities into Federal, State and Private. Three universities were selected to represent each stratum based on the year of establishment making a total of nine universities sampled. The total number of undergraduates from all the sampled Universities as at the time of this study was 205,083. Using Israel's (2013) sample size determinant, a sample size of 1,111 determined at 95% confidence interval, and 3% margin of error was recommended for population of this magnitude. However, 1,219 respondents were randomly sampled for the study to cater for attrition and experimental mortality using proportional sampling technique to allocate number of respondents to each university based on the numbers of undergraduates and only 1,121 undergraduates adequately responded to the questionnaire items, their responses were analysed in the study.

Instrumentation

The research instrument that was used to gather the relevant data for this study was a validated adapted questionnaire with two sections A and B. Section A deals with respondents' personal information such as name of institution and Area of specialisation; while section B was divided into two (BI and BII). These are: BI. Undergraduates' access to social media for learning. BII. Undergraduates' attitude towards social media for learning. BI contained 10 items, items 1 and 2 required respondents to tick appropriately to indicate the devices they had and used to access social media, while item 3 required respondents to choose from the available options where they normally access social media and items 4 to 10 in B (I) required respondents to choose option that best explain their opinion and was graded using response modes of Always, Frequently, Sometimes and Seldom while BII contained 20 items numbered 1-20. The response mode to the items from section B (II) was graded using likert response modes of Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D).

The validity of the instrument was ensured by four experts from the Department of Educational Technology, University of Ilorin and three experts from the department of Computer Science, University of Ilorin. The reviewers helped to review the questionnaire to check the clarity of language and ensured it is relevant to

the study. Their suggestions and corrections were noted and effected on the final draft of the instrument administered.

The reliability of the research instrument was determined by administering fifty copies of the questionnaire to randomly selected undergraduates of University of Ilorin, Ilorin who share similar characteristics with the study sample but was not selected for the actual study. After the administration and retrieval of the completed instrument, the questionnaire items were subjected to statistical analysis using Cronbach alpha reliability statistics to check for the instrument’s internal consistency. The reliability was determined based on the dependent variables in the instrument which includes: access and attitude. The Cronbach’s alpha values obtained for these variables were 0.78 and 0.89 respectively at 0.05 level of significance.

Procedure for Data Collection

The copies of the research questionnaire were administered to the university’s undergraduates through personal contact by the researcher to ensure the questionnaire items were properly filled without delay. The completed copies of the questionnaire were collected and data gathered from the questionnaire were analyzed using Analysis of Variance (ANOVA). The Hypotheses were tested using ANOVA because they consist of independent variable of area of specialisation which occurred more than two levels.

Results

Hypothesis One

Ho₁: There is no significant difference in undergraduates’ access to social media for learning based on area of specialisation

Table 1: The ANOVA of Undergraduates’ Access to Social Media for Learning based on Area of Specialisation

Sources of Variance	Sum of squares	Df	Mean square	F	Sig.
Between Groups	177.37	3	59.12	4.98	.002
Within Groups	13257.10	1117	11.87		
Total	13435.37	1120			

Table 1 showed a significant difference in undergraduates’ access to social media based on area of specialisation because, {F (3, 1117) = 4.98, p = .002}. This implied that the null hypothesis was rejected because the significant value (.002) was found to be less than the alpha value of 0.05. This means that undergraduates’ access to social media for learning varied based on their area of specialisation. A further examination on the group difference was carried out using Duncan’s Multiple Range Test (DMRT), a post-hoc test.

Table 2: Duncan Multiple Range Test Showing the Magnitude of Differences in Undergraduates’ Access to Social Media for learning based on Area of Specialisation

Area of Specialisation	Mean	N	Group	Duncan’s Grouping
Education	21.85	255	1	B
Sciences	21.01	362	2	A
Arts	21.00	249	3	A
Social Sciences	21.75	255	4	B

Table 2 showed the magnitude of differences in undergraduates' access to social media for learning based on area of specialisation. The information on the table revealed that groups 2 (Sciences) and 3 (Arts) have slightly different mean scores of 21.01 and 21.00 respectively, but significantly differed from groups 1 (Education) and 4 (Social Sciences) with mean scores of 21.85 and 21.75 respectively. Hence, it can be concluded that undergraduates from Education and Social Sciences contributed to the difference noted in Table 2 and thus had more access to social media for learning than Sciences and Arts.

H₀₂: There is no significant difference in undergraduates' attitude towards social media for learning based on area of specialisation

Table 3: The ANOVA of Undergraduates' Attitude towards Social Media for Learning based on Area of Specialisation

Sources of Variance	Sum of squares	Df	Mean square	F	Sig.
Between Groups	1455.30	3	485.10	12.04	.000
Within Groups	44998.20	1117	40.29		
Total	46453.50	1120			

Table 3 showed a significant difference in undergraduates' attitude towards social media for learning based on area of specialisation because, {F (3, 1117) = 12.04, p = .000}. This implied that the null hypothesis was rejected because the significant value (.000) was found to be less than the alpha value of 0.05. This means that undergraduates' attitude towards social media for learning varied based on their area of specialisation. A further examination on the group difference was carried out using Duncan's Multiple Range Test (DMRT), a post-hoc test.

Table 4: Duncan Multiple Range Test Showing the Magnitude of Differences in Undergraduates' Attitude towards Social Media for Learning based on Area of Specialisation

Area of Specialisation	Mean	N	Group	Duncan's Grouping
Education	49.66	255	1	A
Sciences	50.00	362	2	B
Arts	49.44	249	3	B
Social Sciences	50.91	255	4	C

Table 4 showed the magnitude of differences in undergraduates' attitude towards social media for learning based on area of specialisation. The information on the table revealed that groups 1 (Education), 2 (Sciences) and 3 (Arts) have slightly different mean scores of 49.66, 50.00 and 49.44 respectively, but significantly differed from group 4 (Social Sciences) with mean score of 50.91. Hence, it can be concluded that undergraduates from Social Sciences contributed to the difference noted in Table 4 and thus had positive attitude towards social media for learning than undergraduates in Education, Sciences and Arts.

Discussion of Results

Influence of undergraduates' area of specialisation on their access to social media for learning was confirmed with hypothesis 1. The result showed a significant different in undergraduates' area of specialisation on their access to social media use for learning. From the earlier literature reviewed, Al-Sharqi, Hashim and Kutbi (2015) indicated that Arts students are heavier users of social media; while Al-Khaddam (2013) in a study which investigated impact of social networks on interpersonal communication of university college students, the study revealed no statistically significant differences related to the impact of the use of Facebook, on the interpersonal communication of the students due to specialisation of the students. Finding

on influence of undergraduates' area of specialisation on their attitude towards social media for learning was tested with hypothesis 2 and the result revealed a significant difference in undergraduates' attitude towards the use of social media for learning based on area of specialisation. This result was in line with the study conducted by Acar (2013) which revealed that students from Statistics and Global Business had better attitudes toward social media use for education which implied that students' area of specialisation has influence on their attitude towards social media use for education. On the contrary, Alison (2013) studied Student's Attitude towards Social Networks and Learning Modalities, it was found out that students' major/specialisation does not have any influence on their attitude towards using social network for learning.

Conclusions

Based on the results of the study, it could be concluded that area of specialisation had influence on undergraduates' access to and attitude towards the utilisation of social media for learning.

Recommendations

The following Recommendations were made:

- i. undergraduates from arts and sciences should be encouraged to use social media for learning most often.
- ii. university administrators and lecturers should embrace student-centred learning approach by using social media devoid of specialisation bias in the teaching and learning process, this will encourage them to explore social media for learning therefore increasing their (undergraduates from Education, Sciences and Arts) attitude towards using it for learning

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