

UNDERGRADUATE STUDENTS' PERCEIVED USEFULNESS OF HYPERMEDIA AS CORRELATE OF SELF-REGULATED LEARNING AMONG STUDENTS IN UNIVERSITY OF MAIDUGURI, BORNO STATE

Ibrahim Wada

Department of Library and Information Sciences,
University of Maiduguri, Borno State- Nigeria

DR. Fatima Ibrahim Lasisi

Department of Library and Information Sciences,
University of Maiduguri, Borno State- Nigeria

And

Ibrahm, M. M. Furfuri, Ph.D

University Librarian

Sokoto State University, Sokoto State

And

Dr. Abdullahi Muhammad Dawakinkudu

Kano University of Science and Technology, Wudil, Kano State, Nigeria

Abstract

The study assessed undergraduate students' perceived usefulness of hypermedia in facilitating self-regulated learning in tertiary institutions. The study used Descriptive Survey Design, to explore and determine the innovative, discovery, and dynamic usefulness of hypermedia from the point of views of undergraduate students. From the population of 28,564 undergraduate students, studying various courses in University of Maiduguri, 380 respondents were determined with the aid of Raosoft sample size calculator and drawn through multistage sampling techniques, which consisted of stratified sampling technique and simple random sampling technique. Self-designed structured questionnaire was used for collection of data. Out of the 380 questionnaire administered, 378 were returned completed, and usable. Mean, Standard deviation statistics were used to analyse the students' demographic information and Chi-square statistic was used to test the relationship between undergraduate students' perceived usefulness of hypermedia and self-regulated learning efforts with 95% confidence and at 0.05 alpha level. The results of the study revealed that hypermedia are very important facilitator of student learning

Keywords: Hypermedia, Self-regulated-learning, Perceived-usefulness, Tertiary Institution, Undergraduate students

Introduction

Learning is a multidimensional process, which involves different approaches (Wells&McCrory, 2011). Conventionally, books and serial publications have created a path and pattern for learners to follow to avoid misrepresentation and misunderstanding in the course of seeking for information. Printed information resources like books require linear reading from a page to page. When seeking for information within libraries' domain, such process of information seeking may even requires a guide from librarians. The interconnectivity of information items in the libraries are addressed by card catalogue with all possible added entries. It is in support of such linear learning technique that libraries professionally organize all information resources to meet the needs of student by using card catalogues, shelving, and other reference venues and services. However, Yamat, Ismail and Shah (2012) debated that the birth of Information and Communication Technology (ICT) have dissolved such directional learning path and ultimately created a decentralized form of learning that involves dynamic access to information contents on the World Wide Web and many other technologies.

Smart phone at the disposal of students is a driving force behind every student's perception of hypermedia as an economically viable educational approach to learning. At the comfort of their beds, at every time in both night and day, and with the multiple hypermedia tools (Fabio &Antonietti. 2012), students can engage in learning while choosing amongst different information contents that can answer or solve their challenges (Fard, Azman& Amir, 2014)—be it assignments, notes preparation, learning for tests and examinations, or reading for entertainment. Due to the timeliness and ubiquity of the World Wide Web, students can take advantage of hyperlinked resources to explore deeply and widely on subject matters in order to make a difference in understanding (García & García, 2005; Frasinicar, Houben&Barna, 2010). Further and detail explanations, expositions, examinations and experimentations are offered to students through hypermedia facilities in a bundled form in a way that the hearing and sighting faculty of students are fully utilized.

The necessary encouragements, supports and guidance that can be tailored for students to trust and perceive hypermedia resources as complimentary and supplementary approach to learning can come from libraries and teaching staff (Greene, Costa, Robertson, Pan &Deekens, 2010). As roles, getting hold of knowledge on students' information seeking behaviour and perception, given their exposure to hand-held smart phones, by librarians can leverage an exceptional advantage to identify, acquire, and provide all indispensable supportive tools for

students to access the right information contents (Greene, *et. al.*, 2910; Karimi, 2014). As a matter of function, libraries can remove cost of subscription to Internet service from students by providing strong, reliable and fast Internet service, at free or subsidized rate. Additionally, libraries can tailor students' approach to information contents through carefully selected websites, links to educative YouTube contents, and other hypermedia authoring tools for teaching staff to create and organize highly educative information contents for direct use by students. Along with use of printed resources, hypermedia resources can also be offered to students for interactive engagement through projector, remote connection and/or thin client architecture. The projection of hypermedia resources in the class by teachers or lecturers as well as provision of hypermedia facilities in the libraries can facilitate and encourage students to develop positive perception about potentials of hypermedia contents to support dynamic and self-regulated learning.

Moos and Azevedo (2008), Moos and Marroquin (2010) and Müller and Seufert (2018) believe that students' perceptions can be a blocking stone to their intention to use hypermedia resources. Poor perception of hypermedia according to Müller and Seufert (2018) can lead students to take advantage of distractive social media outlets, which may negatively influence their concentration and focus on learning. The freedom to choose the useful information contents can be jeopardized if students are left to think or explore the best learning approach by themselves (Liu 2004). . However, a study of the degree of students' perceived usefulness of hypermedia resources is a powerful tool to understanding students information seeking or searching behaviour in relation and contrast to traditional form of learning, which libraries and teaching staff will exploit to be at full-fledged help to students learning efforts.

Hypotheses

Students' perceived usefulness of hypermedia resources do not have significant influence on their attitude towards self-regulated learning

METHODOLOGY

Study Design

This study adopted descriptive survey design to access the how understanding students perceive hypermedia as a tool that helps them engage in learning (self-regulated learning) with little facilitation. Descriptive research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way (Shuttleworth, 2008). Descriptive research is a good choice for a research aim is to identify characteristics, frequencies, trends, [correlations](#), and categories.

Population, Sampling and Sample Size

The population of this study is twenty eight thousand, five hundred and sixty four (28,564) undergraduate students, studying various courses in the University of Maiduguri. Multistage sampling technique, that is, simple random sampling, proportionate sampling and accidental sampling technique were employed to carefully select respondents for data collection. Simple random sampling technique is used to select six (6) faculties and twelve (12) departments, while proportionate sampling is used to assign questionnaire to each of the selected departments. And accidental sampling is used to distribute the questionnaire to the respondents. The sample size for this study is 384, determined by the use of Raosoft Online Sample Size Calculator (www.raosoft.com, 2020).

Instrument for Data Collection

Self-developed structured questionnaire using Likert-scale was used for collection of data from undergraduate students in the University of Maiduguri. The questionnaires were administered to the respondents along with five (5) trained research assistants who were recruited based on their experience and willingness. Out of the 384 questionnaire administrated, 378 were returned completed, and after verification, they were considered usable for further analysis.

Reliability and Validity of Research instrument

The questionnaire was given to two (2) experts in the Department of Library and Information Science in Bayero University, Kano for Face and Content validity. Their observations, corrections, and suggestions were considered and effected appropriately. Additionally, 30 copies of the questionnaires consisting of 20 items were administered to undergraduate students in Sule Maintama University, Kano to check the reliability of the questionnaire using split-half method, and also subjected to Cronbach Alpha in Statistical Package for Social Science (SPSS v23) for reliability coefficient index of 0.87 was obtained. This indicates that the questionnaire is reliable for data collection.

Method of Data Analysis

Descriptive statistics of mean and standard deviation representing demographic information of respondents were generated based on research question and were presented in tables along with frequencies and percentages. While Pearson's Product Moment Correlation (PPMC) was used to test the research hypotheses and were analysed by use of inferential statistics of Chi-Square, in order to test the predictive relationship of undergraduate students' perceived usefulness of hypermedia and their self-regulated learning.

Results

Table 1 Summary of the Pearson's Product Moment Correlation on the relationship between Students' perceived usefulness of hypermedia resources and attitude towards self-regulated learning

Variable	N	X	SD	df	r	prob
Usefulness of hypermedia resources	380	12.44	1.71	378	.88	0.002
Attitude towards self-regulated learning	380	12.61	1.40			

r = .88; df= 378; (P<0.05)

The table 1 reveals that mean (x) score for Usefulness of hypermedia resources is 12.44, while that of the Attitude towards self-regulated learning is 12.61, the standard deviation (SD) for Usefulness of hypermedia resources is 1.71 and the Attitude towards self-regulated learning is 1.40. The statistical computation shows that a very strong relationship exists with df=378; r=0.88 (P<0.05). The null hypothesis was therefore rejected on the account that significant relationship exists. Students' perceived usefulness of hypermedia resources as significant influence on their attitude towards self-regulated learning

Discussion

This study of Well and McCrory (2011); Yamat, *et al.* (2012); and Hamdan, Mohamad and Shaharuddin (2017), is in line with the present study, where they reported that students need only little guide of libraries' guides, teachers' instructions regarding what to learn, how to learn and when to learn with the aid of hypermedia resources. Such guides can have a multidimensional implication for both newly admitted and returning students at large. In terms of freedom to learn dynamically at will, with hypermedia technology, students are at liberties to make choices and address their needs in line with fast running time and educational requirements, hence self-regulated learning. Learners or students can self-regulate their learning processes and rely on the power of their evolving decisions, choices, thinking, instincts, observations and realisations, such an open-ended opportunity that can easily be exploited through hypermedia facilities.

Qin and Rau (2009) also supported the study where they reported that hyperlink as one of the features of a WWW has been used to enrich hypermedia which makes hypermedia resources highly enticing and easy to use for educational and entertainment purposes. That is to say, a Web being characterized with ubiquity, availability, timeliness, reachability, interoperability, responsiveness and flexibility (Steichen, Ashman & Wade (2012), is a functional resource structured with hyperlinked ideas and knowledge embedded in text, graphics and other forms of tools that appeal to hearing and sight. Scheiter, Gerjets, Vollmann and Catrambone

(2009) and Steichen, Ashman and Wade (2012) conceded that the relationship between library and students is being forged through hypermedia tool in a way that facilitate efforts of students by giving them freedom to learn while leading through non-linear channels of learning with little or no interference. Fabio and Antonietti (2012) concurred with the present study by relating that hypermedia is computer-based devices designed to enhance learning in educational situations with learners optimizing learning processes with self-knowledge and skills. This study has revealed that the importance of hypermedia in facilitating students learning efforts cannot be overemphasized. It is believed that if students are provided with an enabling environment and supports, the load of teaching and learning would be equally shared between learners and teachers.

Conclusion and Recommendations

The findings of this study show that hypermedia is an important tool with which students can learn and relearn with little or no support and would gain much as they would have, if they are taught in the normal classroom. Hypermedia could be another mobile library within the outside of four walls of classroom. Therefore, the following recommendations are provided in line with the conclusion of the study. University libraries should provide constant and fast Internet service for students within the library, around the campus and in hostels to enable them take advantage of hypermedia resources. Government should create an Internet Subscription Package for students as part of scholarship to facilitate students learning efforts. Students are expected to create strong bond between their learning efforts and use of hypermedia so as to expand their lecture notes.

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