YOUTUBE COMPETENCIES, FREQUENCY OF USE AND RELEVANCE OF CONTENT IN TEACHING BASIC EDUCATION IN RIVERS STATE, NIGERIA

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Abstract

This study examines YouTube competencies among teachers, frequency of use and relevance of content in the teaching of Basic Education in Rivers State. Descriptive survey was used for the study. Three research questions and three hypotheses guided the study. Population of the study comprises of 12, 988 Basic Education teachers. 373 teachers were sampled using Purposive sampling techniques. Self-designed questionnaire titled Teachers _YouTube Competency, Frequency and Relevance Inventory (TYFR) was developed and used. The questionnaire were given face validity by expert of Educational Technology and Measurement and Evaluation from Department of Educational Foundations, Rivers State University Port Harcourt. TYFR was tested with 15 teachers and reliability of 0.72 was obtained using Kuder-Richardson Formula (KR-21). The data collected were analyzed using mean and standard deviation to answer research questions while the hypotheses were tested using t-test. The study revealed high competencies, high frequency of YouTube use among teachers. Thus, the author recommends the setting up of quality assurance to assess the quality and relevance of contents uploads by content providers for basic education purposes.

Keywords: YouTube, Competency, Frequency, Relevance

Introduction

YouTube is a globally known website used for disseminating information and entertainment via online videos. Most users of YouTube are attached to it because of entertainment and information gathering. It is indeed clear that YouTube contribution to information sharing has gone beyond entrainment and other social media interactions because of its capacity to convey videos of lessons and lots of practical presentations in such a way and manner that users could use and save to reuse. YouTube gives room for content creators to create and upload videos online and to share with others. In recent time, YouTube has been very popular and has become one of the most used websites and resource tool for educational content (Edach-Abah, & Dike, 2019).

The fact that YouTube tool is providing useful educational materials for the public makes it a learning environment that may be employed for a wider approach in reaching those that are not at the reach of conventional school system. The obvious contributions of YouTube to teaching and learning triggers content creators to engage in the provision of more educational YouTube contents based on the interest and discipline of these content creators as well as based on societal trends. Mady et al., (2020) postulated that YouTube provides massive amounts of educational

materials for learners and teachers. This goes through thousands of user-generated YouTube channels covering various topics at school and university levels (P.3). It is this features that puts YouTube as the second most patronized website on the Internet away from Google and Facebook (Baadel, et al. 2017;Brandwatch, 2019).

This is because YouTube have been observed to be relevant based on its high impact in video presentation on learning, retention and performance (Ogirima, Telulope &Temitope,2021). Mady et al., (2020) argued that ―YouTube represents great potentials as a learning aid for learners and teachers in higher education‖ (P.2). YouTube relevance in teaching upper basic education cannot be quantified. Hence, there are numerous materials and channels with suitable instructions for this purpose. YouTube as a video platforms allow users to create, distribute, share and organize user-generated video. This platform enables registered and unregistered users to make use of the uploaded videos (Ogirima, et al., 2021). Making the impact of YouTube videos widely pronounced among teachers and players in the field of education (Fleck, et al., 2014). The use of YouTube videos in the teaching-learning process provides a plethora of benefits, which includes stimulating students_ interest, attracting students_ attention, fostering creativity, increasing collaboration, facilitating hard-to-observe experiences, making learning fun and improving understanding (Alkhudaydi, 2018).Videos on YouTube offer several services like uploading, downloading, watching, and sharing among individuals. Clips on YouTube are available anytime and anywhere, they have a high quality of showing contents, and they offer the potential of repeating, stopping, or completing at any other time. It provides multimedia content as they engage visual and verbal material in them thus, they develop many educational skills. YouTube videos encourage group work activities through sharing the videos which add fun and meaning to the learning environment (Pratama et al.,2020).

It will be interesting to observe that most of the intensive users of YouTube are young people. These young people consider YouTube as a place where diverse contents can be found and so, they liken it to a search engine where educational content can be accessed free of charge. These young people equally prefer YouTube over other services offered by big companies such as Google or Bing (Pirfrees, 2019).Similarly, YouTube as a platform has offered a number of tutorials, recipes, step-by-step videos, repair and maintenance tips and tricks to improve very many operational skills. YouTube as visual aids have been observed as one with the trait to arouse the interest of learners and help the teachers in easy concepts delivery. There are some great videos out there on YouTube that are very interesting and entertaining and will never be seen anywhere else (Hicks, 2015). YouTube has been shown to foster independent learning, student-student and student-teacher collaboration, personalization of the learning experience and feedback from students (Everson, Gundlach & Miller, 2013). It is on this direction that Mbaba and Ofor-Douglas (2023) stressed that ―It is observable that with increase in the use and involvement of technology in day to day activities the adoption and use of OER by teachers and students will be a phenomenon‖ (P.26).Having the understanding that YouTube is an open access materials for entertainment, information sharing and by implication educative in nature. The open access of YouTube for content creators makes it more available and serves as Open

Educational Resources (OER), this function and role is one of the major reasons for wide acceptance and use of YouTube globally.

Several studies have consistently supports the use of YouTube in the school system based on studies that revealed students_ frequency of YouTube use, impact on performance, relevance, availability and accessibility. Ogirima, et al., (2021). Studied future teachers_ perception towards the use of YouTube for teaching –learning activities in Nigeria basic schools and the results revealed that future teachers had a high level of perception towards the use of YouTube in teaching-learning activities in Nigerian Basic Schools (P.81).Likewise, in a study of undergraduate student_s perceptions on the use of YouTube in teaching-learning process. It was revealed that the use of YouTube enhanced the achievement of the instructional process (Buzzetto-More 2014). YouTube was also seen as necessary tool in classrooms as it appeals to the attention of students and involves their mentality and creativity. It also assists to cover the materials especially language. YouTube leads the fun element into classes, through meeting the interests of students (Pratama, et al., 2020).

In Africa most schools and learners have the challenge of accessibility, availability and the acquiring requisite skills for the use of the internet and by implication the YouTube platform. These problems are not far from the general limitation of teachers and learners with respect to poor or unavailability of facilities and infrastructure in most schools in the developing countries. Kremer et al. (2013) mention some of these problems, like diffusion of technology, supplies of computers, and efficient use of ICT, requiring the availability of equipment and tools, pedagogy issues, accountability, access, and quality (P.8). It_s worth noting that away from the challenges of availability and other challenges mentioned earlier. Mbaba, et al., (2018) postulated that ―the challenge of the teacher has been how to harness strategies; materials and equipment from the environment to ensure both situational and individual interest are positively employed in learning‖ (P.85).Yet, it_s not clear if teachers have the requisite skills to harness and employ search systems on YouTube as well as if these videos available on YouTube are relevant to the curriculum assigned for upper basic education training. If teachers were using YouTube to support their lesson preparation, the frequency of their usage is not ascertained. Thus, this study examines the frequency of use, competency and relevance of YouTube in teaching basic education in Rivers State.

Objectives

1. Ascertain the competency of teachers in YouTube instructional contribution for Basic Education schools;
2. Ascertain teachers_ frequency of YouTube instruction usage
3. Determine the relevance of YouTube content in teaching upper basic education in Rivers State;

Research Questions

1. What is the competency of teachers in YouTube instructions usage among teachers of upper Basic Education in Rivers state?
2. What is the frequency of teachers_ use of YouTube instruction in upper Basic Education of Rivers State?

3. How relevant are YouTube content in teaching upper basic education in Rivers State?

Hypotheses

The following hypotheses were formulated to guide the study:

Ho$_1$ There is no significant difference between teachers_ competencies in YouTube usage based on gender.

Ho$_3$ There is no significant difference between male and female frequency of YouTube usage in upper Basic Education.

Ho$_2$ There is no significant relevance in YouTube instructional content based on gender perceptions

Methodology

This study employed descriptive survey design to explicitly give explanation on the entire study. The population for the study constitutes about 12, 988 teachers of basic education programme in Rivers State. Krejcre and Morgan (1970) sampling size formula was used to arrive at 373 as sample size while multistage sampling technique was used to sample 24 junior secondary schools in Rivers South East senatorial zone for the study. Furthermore, Purposive sampling techniques was used to sample 373 teachers required for the study. All the teachers that participated in the study have access to the internet and smart phones and have used, register or have a YouTube channel. More so, all the teachers used in the study teach in upper basic education level (JSS1- 3).

Self-design questionnaire titled teachers_ YouTube competency, frequency and relevance inventory (TYFR). The questionnaires have four sections, section A provides details of the respondent while section BCD addressed YouTube competency, Frequency of YouTube use and YouTube Relevance to basic education respectively. The questionnaire provides three point liket scale Yes, Undecided and No options. The questionnaires were given face validity by expert of Educational Technology and Measurement and Evaluation from Department of Educational Foundations, Rivers State University Port Harcourt. TYFR was tested among 15 teachers who were not involved in the study within Port Harcourt city council and a reliability of 0.72 was obtained using Kuder-Richardson Formula (KR-21). This indicates that the instrument is consistent and reliable for use.

TYFR was administered to school with the 34 Junior Secondary schools sampled for the study. The entire 373 questionnaire were successfully retrieved after filling by the respondent. The data collected were analyzed using mean and standard deviation to answer research questions while the hypotheses were tested using t-test. A decision mean of 2.0 and 2.5 was calculated and used in answering 1- 2 and 3 respectively.

Results

Data Analysis

Research Question 1: What are the competencies of teachers in creating YouTube content for upper Basic Education in Rivers state?

Table 1: Mean ratings of teachers' competencies in creating YouTube content for upper Basic Education in Rivers state

S/N	Teachers' Competencies	Yes	Not sure	No	Mean	Std. D
1.	I have the skills of audio/visual recording, editing and uploading on YouTube	191	53	127	2.17	0.74
2.	Download, save and send YouTube link to other users	259	99	15	2.65	0.55
3.	Attach videos to PowerPoint and share it via YouTube	157	34	182	1.93	0.95
4.	Create YouTube channel and upload materials	134	199	40	2.25	0.64
5.	I can create hypertext and hypermedia on YouTube presentations	221	142	10	2.57	0.55
	Grand mean				2.31	0.42

Table 1 shows the mean ratings of teachers_ competencies in creating YouTube content for upper Basic Education in Rivers state. The result reveals that the respondents indicated that ―I have the skills of audio/visual recording, editing and uploading on YouTube‖ (Mean =2.17)―Download, save and send YouTube link to other users (mean =2.65), Create YouTube channel and upload materials(Mean =2.25)I can create hypertext and hypermedia on YouTube presentations (mean = 2.57) are the only major competencies they had in creating YouTube content based on the calculated mean (Mean-2.00). However, item 3 had a mean score lower than the decision mean score, indicating that teachers were not able to attach videos to their video presentations (Mean= 1.93) . The table shows a grand mean score of 2.46 with the standard deviation score of 0.47. The grand mean score indicates that teachers had competencies in almost all areas of competencies presented in the questionnaire, thus they are able to create YouTube content for upper Basic Education in Rivers state.

Research Question 2: What is the frequency of teachers_ use of YouTube instruction in upper Basic Education of Rivers State?

Table 2: Mean ratings of the frequency of teachers' use of YouTube instruction in upper Basic Education of Rivers State

S/N	Teachers' Frequency of YouTube use	More often	Once in a while	Not at all	When there is need	Mean	Std. D
1.	I do use educational YouTube to enhance lesson preparation	82	154	83	54	2.81	1.09
2.	Engage YouTube videos for proper explanation of subjects that needs practical presentation	15	220	35	103	2.75	0.91
3.	I interact with educational YouTube services in respect of new concepts	66	171	76	60	2.35	0.95
4.	YouTube videos supports my teaching activities	121	111	55	86	2.57	1.30
5.	Download lesson from YouTube for learners use	37	49	182	105	2.95	0.90
	Grand mean					**2.69**	**0.63**

The result in table 2 shows the mean ratings of the frequency of teachers_ use of YouTube instruction in upper Basic Education of Rivers State. From the responses, Download lesson from YouTube for learners_ use (mean = 2.95), Do use educational YouTube to enhance lesson preparation (2.81). Engage YouTube videos for proper explanation of subjects that needs practical presentation (Mean = 2.75). YouTube videos supports my teaching activities (Mean= 2.57); Interact with educational YouTube services in respect of new concepts (2.31). The result also shows a grand mean score of 2.69. Since the grand mean score is greater than the decision mean score of 2.50, it can be concluded that teachers frequently of YouTube usage in upper Basic Education of Rivers State is positive to a high extent.

Research Question 3: How relevant are YouTube contents in teaching upper basic education in Rivers State?

Table 3: Mean ratings of the relevance of YouTube content in teaching upper basic education in Rivers State

S/N	Relevance of YouTube	Yes	Not sure	No	Mean	Std. D
1	Some YouTube materials are relevant and good for teaching at basic Education	245	90	38	2.55	0.67
2	Most YouTube videos created locally and shared are relevant for teaching at Basic schools	179	179	15	2.44	0.57
3	YouTube provides various relevant alternative materials from different channels for teachers comparison and improvement	274	75	24	2.67	0.59
4	Teachers follow each other on YouTube to provide alternative information for classroom use	267	51	55	2.57	0.74
5	New concept and topics are easily shared, accessed via YouTube	273	49	51	2.59	0.72
	Grand mean				**2.57**	**0.37**

Table 3 shows the mean ratings of the relevance of YouTube content in teaching upper basic education in Rivers State. The respondents strongly agreed that the major relevance of YouTube content in teaching upper basic education is that ―new concept and topics are easily shared, accessed via YouTube (mean = 2.59). This was followed by ―YouTube provides various relevant alternative materials from different channels for teachers_ comparison and improvement (mean = 2.67). According to the respondents, the least relevance is ―Some YouTube materials are relevant and good for teaching at basic Education (mean – 2.55). The respondents also disagreed to the fact that ―most YouTube videos created locally and shared are relevant for teaching at Basic schools‖ (mean = 2.55). The table revealed a grand mean score of 2.53 is higher than the calculated mean for decision, indicating that YouTube is relevant in teaching at upper basic education in Rivers State. This means that the proper utilization of YouTube content by teachers would promote the teaching of any subject in upper basic education in Rivers State.

Hypotheses

Ho_1 There is no significant difference between teachers_ competencies in YouTube usage based on gender.

Table 4: Result of t-test on the teachers' competencies in YouTube usage based on gender

Gender	N	Mean	SD	Df	t-value	P-value	Remark
Male	190	2.34	0.42	371	1.065	0.288	Not Significant
Female	183	2.29	0.42				

Table 5 shows the result of t-test on the teachers_ competencies in YouTube usage based on gender. The result also revealed that the t-value of 1.065 and P-value of0.288were observed at 371 degree of freedom. Since the p-value is greater than the alpha value of 0.05, it implies that there is no significant difference between teachers_ competencies in YouTube usage based on gender. Hence null hypothesis two was accepted 0.05.

Ho_2 There is no significant difference between male and female frequency of YouTube usage in upper Basic Education.

Table 5: Result of t-test on the teachers' frequency of YouTube usage in upper Basic Education based on gender

Gender	N	Mean	SD	Df	t-value	P-value	Remark
Male	190	2.71	0.65	371	1.065	0.288	Not Significant
Female	183	2.66	0.60				

From the summary of t-test analysis result in Table 6, the t-value of1.065is obtained at 371 degree of freedom and the p-value of 0.288 is greater than the alpha value of 0.05. Consequently, the result indicated that there is no significant difference between male and female frequency of YouTube usage in upper Basic Education. Therefore, the null hypothesis was retained.

Ho_3 There is no significant relevance in YouTube instructional content based on gender perceptions

Table 6: Result of t-test on the relevance of YouTube instructional content based on gender

Gender	N	Mean	SD	Df	t-value	P-value	Remark
Male	190	2.57	0.39	371	2.012	0.045	Significant
Female	183	2.49	0.41				

Table 4 shows the result of t-test on the relevance of YouTube instructional content based on gender. The table reveals that t-value is 2.012 at 371 degree of freedom and P-value = 0.045. Since the P-value (0.045) is less than the alpha value of 0.05, it means that there is significant relevance in YouTube instructional content based on gender perceptions. Therefore, the null hypothesis is hereby rejected.

Discussions

The study revealed that teachers of basic education in Rivers State have the competency required to create YouTube content and to use YouTube instructional contents to support the teaching process in classroom. It was also revealed that teachers have high frequency in the use of YouTube contents. The study showed that YouTube contents available are relevant and good for teaching upper basic education in Rivers state. These perceptions aligned with the study of Ogiri et al., (2021) and Tella, et al., (2018) whose studies stressed the high perception of teachers in the use of YouTube for basic education in Nigeria. This work also showed that there were no significant difference between male and female teachers in YouTube competencies and there perceptions on the frequency of YouTube use among teachers. This study aligned with the findings of Buzzetto-more (2015) that confirmed that gender did not influence the perception of male and female students towards the use of YouTube in teaching and learning activities.

Implication for Teachers and Teacher Educator

The major implication of this study to teachers and teacher educators is that the use of YouTube in teaching has come to stay. It_s ascertained that the content so far created is relevant to basic education. Thus, stockholders hold a duty of setting up quality assurance unit to oversee the quality of the contents so provided for public consumption. Teacher Educators now have the mandate of guiding learners in this direction during training.

Conclusion

The use of YouTube content in the lower education level have not been popular, but gradually the content expanded so much that basic education and much more contents were added. This study therefore hold the view that YouTube content is relevant to the content of basic education in Rivers State and that teachers have the competencies needed to upload contents and to use for the benefit of their learners. The findings also indicate that there is high frequency in the use of YouTube among teachers.

Recommendations

Based on the findings of this study the author made the following recommendations that:

1. More training should be given to teachers to improve the competencies of those who may be deficient in one area or the other;
2. Schools should provide friendly YouTube regulations that will enable students at upper basic education participate in the use of YouTube
3. Basic Education Board should set up quality Assurance unit to check the quality of the content contributed by content providers to ensure relevance and quality education and
4. Government should provide technology friendly classrooms to encourage the use of YouTube in upper basic education in Rivers State.

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