

Information and Communication Technology Skills Needed by Business Studies Teachers in Junior Secondary School in Bayelsa State

Igbongidi, Binaebi Paul

*Department of Vocational and Technology Education
Niger Delta University
Wilberforce Island Bayelsa State*

Corresponding Author: Igbongidi, Binaebi Paul

Abstract

This study investigated the Information and Communication Technology skills needed by Business Studies Teachers in Junior Secondary Schools in Bayelsa State. To achieve this broad objective, four research questions were developed and answered. Survey research design was used to carry out this study. The population for the study consisted of 129 business studies teachers from eight education zones of the State. Since the population was sizeable there was no sampling. The instrument for data collection was structured questionnaire which was face validated by three experts from the department of Vocational and Technology Education, Niger Delta University, Bayelsa State. To determine the internal consistency of the instrument, Cronbach alpha method was used and a reliability coefficient of 0.77 was obtained. Data for the study was collected with the help of four research assistants. Data collected was analyzed using Mean and Standard Deviation. The result revealed that business studies teachers needed all the computer appreciation, word processing, the use of internet and data processing skills identified in the study to excel. It was thus recommended among that Institutions of higher learning where business studies teachers are being trained should fully equip business education department with ICT gadgets so as to give them necessary training that would enable the teachers have full knowledge and skills that they would in turn transfer to their students.

Keywords: *Ict skills, Business studies teachers, Junior secondary school, Bayelsa state*

Background of the Study

There has been increasing interest in introducing innovations such as Information and Communication Technology (ICT) into the teaching and learning of business studies especially when the Nigeria Education and Research Development Council (NERDC) introduced a modern curriculum into the school system. Information and Communication Technology (ICT) involves the use of computers and other electronic devices to process information. Nworgu (2008) stated that ICT refers to a whole range of facilities or technologies involved in information processing and electronic communication to be handled with skills and expertise, for effective achievement and realization of its potentials in Education. In the view of Valasidou (2008), ICT is an innovative instrumental tool that enables the educators to modify the teaching and learning processes in order to increase students' interest. Brown (2009) explained that ICT is considered very crucial for the achievement of various educational objectives in terms of expanding the citizenry access to education at all levels and improving the quality of teaching and learning process.

In the explanation of Daniels (2002), the use of Information and Communication Technologies in the educative process has been divided into two broad categories: ICTs for education and ICTs in education. ICTs for education refers to the development of ICT specifically for teaching and learning purposes, while the ICTs in education involves the adoption of general components of ICTs in the teaching and learning process. Effiong (2005) emphasized that ICT use in schools' curriculum depends highly on the teachers who will use ICT to teach the students. This requires that teachers should have the ability to incorporate ICT into teaching and learning. Okereke (2008) noted that, the application of ICT to teaching and learning makes instructions more effective and productive. In this regard ICT is viewed as innovations that enable business studies teachers facilitate teaching and learning of business studies.

Business studies is an academic subject that helps students to be exposed to realities of business practices. The subject is designed to introduce students to the foundational knowledge of the principles and practices of business. Okute (2008) opined that business studies is the fundamental subject which has to do with acquisition, conservation and expedition of wealth. Osuala (2004) stated that business studies help the students to make informed decisions in the everyday business of living. Obi (2005), explained that business studies prepares students for business career or enables those in that career to become more efficient and advance to higher business positions. In the view of NERDC (2007), business studies will enable the students to: acquire the basic knowledge of business studies; develop the basic skills in office occupation; prepare for further training in business studies; have basic skills with which to start a life of work; have basic skills for personal use in future; relate the knowledge and skills they have acquired to the national economy. These objectives can be achieved through teachers' effectiveness, who are the implementers of the curriculum.

A teacher is an individual who is trained in pedagogy and teaching areas of a particular subject to impart knowledge, skills, and attitudes to students in an institution. According to Olaitan, Alaribe, and Nwobu (2009), a teacher is a person who communicates knowledge, skills and attitudes to someone in a school. Okute and Agomuo (2010) noted that a teacher is a facilitator of learning; who helps students to realize their full potentials educationally,

emotionally, and socially in career selection and transition. Garba and Dambe (2007) defined a teacher as one who possesses practical and theoretical knowledge of his vocation, has clear understanding of the students he teaches, and ensures that he increases in the knowledge of his field at all times. There are male and female business studies teachers. These teachers are trained in different higher institutions of learning where they obtain various qualifications. In this study, a business studies teacher is someone who is trained in pedagogical areas of business education and is charged with the responsibilities of imparting acquired knowledge, skills and attitudes of business studies to students in junior secondary schools.

Secondary school is the school for young people between the ages of 11, 16 and 18. National Policy on Education (FRN, 2004) defined secondary education as the education children received after primary education and before the tertiary stage. Secondary schools are divided into junior and senior sections. The junior secondary school is both pre-vocation and academic. The ability of business studies teachers to teach students ICT depend on the level of ICT skills possessed.

Skill is a person's ability in performing a given task well as a result of training and practice. Skill as viewed by Soanes (2001) is the ability to do something well especially, as a result of long practice. Obi (2005), defined skill as manual dexterity acquired through repetitive performance of operations. Osinem and Nwaoji (2005) stated that, skill is the proficiency displayed by someone in the performance of a given task. ICT Skill is the ability required by business studies teachers for effective instruction to junior secondary school students in Bayelsa State.

In this study, need is the identification of the value that calls for retraining of business studies teachers in the areas of ICT incorporated into business studies curriculum to enable them improve their instruction to students in business studies in junior secondary schools in Bayelsa State. To assist the business studies teachers in the area of study, it becomes important to retrain these teachers through intervention programmes in updating their knowledge, skills and attitudes for effective instruction. Therefore, it is necessary to determine ICT skills needed by business studies teachers for effective instruction in junior secondary schools in Bayelsa State.

Statement of the Problem

In Bayelsa State, new curriculum in business studies has been put in place by the government to replace the old one. The new curriculum contains some component of ICT such as computer appreciation, word processing, the use of internet and data processing, which were absent in the old curriculum of business studies. The researcher observed that most business studies teachers in junior secondary schools in the state have some difficulties in teaching the ICT component of the curriculum.

The present business studies teachers are those that were trained and had been working in the school system many years ago particularly before the introduction of modern technologies in teaching and learning of business studies. These teachers were not trained with modern ICT technologies and facilities. This suggests that the training they received seems to be irrelevant to the present curriculum because of the technological changes taking place in work places

where the students will find themselves after graduation. The inefficiency of business studies teachers in imparting ICT skills to junior secondary school students has been noticed in the students' inability to do well in work places. Ademiluyi (2007) observed that most business studies students do not have the ability to succeed in private enterprise.

The researcher observed that many junior secondary school students after graduation find it difficult to establish and manage small businesses, particularly those who had no opportunity for further training. Those who tried to work in business centres where information is processed with modern technologies find it difficult to manipulate computers and other ICT equipment. Olufemi and Onyenu (2010) affirmed that the influence of technologies has rendered manual skills inadequate for the world of work while creating needs for new sophisticated skills. Therefore, it is necessary to determine ICT skills needed by business studies teachers for effective instruction in junior secondary schools in Bayelsa State.

Objective of the Study

The objective of this study is to determine the Information and Communication Technology (ICT) skills needed by business studies teachers in Junior Secondary Schools in Bayelsa State. Specifically, the study sought to determine:

1. ICT skills needed by business studies teachers in computer appreciation in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State.
2. ICT skills needed by business studies teachers in word processing in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State.
3. ICT skills needed by business studies teachers in the use of Internet in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State.
4. ICT skills needed by business studies teachers in data processing in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State

Research Questions

Based on the specific purposes of the study, the following research questions will guide the study.

1. What are the ICT skills needed by business studies teachers in computer appreciation in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State?
2. What are the ICT skills needed by business studies teachers in word processing in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State?
3. What are the ICT skills needed by business studies teachers in the use of internet in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State?
4. What are the ICT skills needed by business studies teachers in data processing in selected Junior Secondary Schools in Yenagoa Metropolis, Bayelsa State?

Research Methodology

Research Design

Survey research design was used to carry out this study. Survey is a generalized means of data collection through the use of interviews or questionnaires. In the opinion of Osuala (2004), survey design answers questions pertaining to characteristics frequencies of occurrences, vital facts of people, their belief, opinions, attitudes, activities and behaviours. Survey design is appropriate for determining the opinions of the whole population on ICT skills needed by

these business studies teachers in junior secondary schools in Bayelsa State for effective instruction. Questionnaire instrument was used to elicit the required information.

Population for the Study

The population for the study consists of all the 129 business studies teachers from junior secondary schools in the eight (8) educational zones of Bayelsa State. Since the population was sizeable there was no sampling.

Instrument for Data Collection

The instrument for data collection was structured questionnaire developed by the researcher from the review of related literature for the study. It was intended to elicit the objective opinions of the respondents on the information and communication technology skills needed by business studies teachers for effective instruction.

The questionnaire was divided into two main parts, A and B. Part A of the questionnaire elicits personal information of the respondents. Part B was further divided into four sections (i -iv) in line with the specific purposes of the study to elicit data on ICT skills needed by business studies teachers. Section (i) contained 12 items relating to computer appreciation skills; Section (ii) contained 16 items relating to word processing skills; Section (iii) contained 11 items that relate to internet skills while Section (iv) contained 14 items relating to data processing skills. The response options of the questionnaire items were arranged under the following rating scale of Very Highly Needed (VHN) = 4.50-5.00; Highly Needed (HN) = 3.50-4.49; Needed (N) = 2.50-3.49; Somewhat Needed (SWN) = 1.50-2.49 and Not Needed (NN) = 1.00-1.49.

Validation of the Instrument

The instrument was face-validated by three experts from the Department of Vocational and Technology Education, Niger Delta University, Wilberforce Island. 51 items were initially submitted for validation; thereafter, 2 items were included bringing the total number of items to 53. Each of the experts was given a copy of the questionnaire items and was requested to eliminate or indicate any ambiguous statement or item in the instrument. The experts were also requested to include other related items or skills which the researcher might have probably left out; unrelated skills among the items presented to them should be deleted.

The instrument for the study was scrutinized and face validated to establish that they were reasonable and appropriate. Their inputs helped in making necessary adjustments and modifications of the instrument. Their suggestions were incorporated into the final draft of the questionnaire that was administered to the respondents for data collection.

Reliability of the Instrument

To obtain the reliability of the instrument, copies of the questionnaire were trial-tested by administering 20 copies to business studies teachers in four junior secondary schools in Southern Ijaw local government area. For the purpose of obtaining the internal consistency of the instrument, Cronbach Alpha reliability method was used. The data obtained from the administered questionnaire was analyzed using Cronbach Alpha Co-efficient method. The result of the analysis yielded a co-efficient of 0.77. The co-efficient was considered high and positive which was an indication that the instrument was reliable enough for measuring what it purports to measure in a consistent manner.

Method of Data Collection

Four research assistants were hired and instructed on what to do by the researcher for data collection. Each of the four research assistants was asked to cover secondary schools in one of the education zones to administer the questionnaire to the respondents (business studies teachers). The researcher visited each of the zones during the data collection to coordinate and monitor the whole data collection exercise. The questionnaire was retrieved from the respondents by the research assistants and was collated by the researcher for the data analysis.

Method of Data Analysis

The data collected was analyzed using Mean; Standard Deviation, t-test and Analysis of Variance (ANOVA). The Mean was used to answer the research questions. Standard Deviation was used to determine how close or otherwise are the respondents' opinion to one another and to the weighted Mean. If the Standard Deviation is greater than 1.96 from the Mean, the respondent was regarded as far from one another in their responses.

Analysis is Research Questions

Research Question 1

What are the ICT skills needed by business studies teachers in computer appreciation?

The data for answering this research question were analyzed and presented as shown in Table

Table 1: Means and Standard Deviation of the Responses of the Respondents on ICT Skills Needed by Business Studies Teachers in Computer Appreciation

SN	Item Statements; ability to:	\bar{X}	SD	Remarks
1	connect basic computer components	4.37	0.73	HN
2	boot and shut down computer	4.38	0.85	HN
3	install computer programmes and soft wares	4.43	0.73	HN
4	store and retrieve documents in the computer	4.59	0.73	VHN
5	print documents	4.43	0.79	HN
6	demonstrate file documents	4.37	0.79	HN
7	use the computer keyboards efficiently	4.52	0.74	VHN
8	use the guide home keys	4.29	0.83	HN
9	demonstrate correct movement of fingers along the rows	4.48	0.73	HN
10	strike a particular key with the correct finger	4.57	0.58	VHN
11	scan a document	4.50	0.78	VHN
12	connect computer components and hard wares	4.32	0.79	HN
	Cluster Summary	4.43	0.45	HN

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- Keys: X = Mean
SD = Standard Deviation
VHN = Very Highly Needed
HN = Highly Needed

Data presented in Table 1 showed that 8 out of the 12 computer appreciation skills had Mean values that ranged from 4.29 to 4.48 which showed that the 8 computer appreciation skills were highly needed by business studies teachers in junior secondary schools in Bayelsa State. The remaining 4 items specifically, items 4, 7, 10 and 11 had Mean values of 4.59, 4.52, 4.57 and 4.50 respectively indicated that the four computer appreciation skills were very highly needed by business studies teachers in junior secondary schools in Bayelsa State. The cluster summary indicated a Mean value of 4.43 which indicated generally, that, computer appreciation skills were highly needed by business studies teachers in junior secondary schools in the state.

Research Question 2

What are the ICT skills needed by business studies teachers in word processing?

The data for answering this research question were analyzed and presented as shown in Table

Table 2: Means and Standard Deviation of the Responses of the Respondents on ICT Skills Needed by Business Studies Teachers in Word Processing

SN	Item Statements; ability to:	\bar{X}	SD	Remarks
1	use word processing packages	4.52	0.87	VHN
2	save and design file names to documents	4.47	0.66	HN
3	delete and correct spelling	4.61	0.58	VHN
4	view menu to manipulate the page layout	4.17	0.80	HN
5	use the insert menu	4.41	0.81	HN
6	format document	4.39	0.78	HN
7	change paper orientation	4.29	0.88	HN
8	move cursor around an active document	4.57	0.72	VHN
9	adjust margins in document	4.48	0.73	HR
10	use the tools menu	4.57	0.58	VHR
11	preview and print text	4.50	0.78	VHR
12	align, centre and justify text in documents	4.32	0.79	HR
13	merge two or more documents	4.03	0.85	HN
14	copy and move text	4.51	0.60	VHN
15	use superscript and numbers	4.32	0.79	HN
16	use exit command in a file	4.53	0.79	VHN
	Cluster Summary	4.37	0.67	HN

Keys: X = Mean
SD = Standard Deviation
VHN = Very Highly Needed
HN = Highly Needed

Data presented in Table 2 showed that 9 out of the 16 word processing skills had Mean values that ranged from 4.17 to 4.48 which showed that the 9 word processing skills were highly needed by business studies teachers in junior secondary schools in Bayelsa State. The

remaining items specifically, items 1, 3, 8, 10, 11, 14 and 16 had Mean values of 4.52, 4.61, 4.57, 4.57, 4.50, 4.51 and 4.53 respectively which indicated that the seven word processing skills were very highly needed by business studies teachers in junior secondary schools in Bayelsa State. The cluster summary indicated a Mean value of 4.37 which indicated generally, that word processing skills were highly needed by business studies teachers in junior secondary schools in the State.

Research Question 3

What are the ICT skills needed by business studies teachers in the use of internet?

The data for answering this research question were analyzed are presented in Table 3.

Table 3: Means and Standard Deviation of the responses of the respondents on ICT Skills Needed by Business Studies Teachers in the use of Internet

SN	Item Statements, ability to:	\bar{X}	SD	Remarks
1	access the internet	4.48	0.50	HN
2	access different websites	4.52	0.50	VHR
3	download files	4.37	0.65	HN
4	Send and access electronic documents	4.29	0.62	HN
5	transfer protocol	4.47	0.50	HN
6	use internet phones	4.31	0.71	HN
7	use facsimiles	4.51	0.50	VHN
8	use internet services such as: internet relay, chat	4.28	0.70	HN
9	engage in electronic commerce business	4.47	0.50	HN
10	knowledge of distance education, education delivery	4.52	0.50	VHN
11	use phone including cell phone	4.62	0.57	VHN
Cluster Summary		4.44	0.59	HN

Keys: X = Mean
SD = Standard Deviation
VHN = Very Highly Needed
HN = Highly Needed

Data presented in Table 3 showed that 7 out of the 11 internet skills had Mean values that ranged from 4.28 to 4.48 which showed that the 7 skills on the use of internet skills were highly needed by business studies teachers in junior secondary schools in Bayelsa State. The remaining 4 items specifically, items 2, 7, 10 and 11 had Mean values of 4.52, 4.51, 4.52 and 4.62 respectively which indicated that the four skills on the use of the internet were very highly needed by business studies teachers in junior secondary schools in Bayelsa State. The cluster summary indicated a Mean value of 4.44 which showed generally, that internet skills were highly needed by business studies teachers in junior secondary schools in the State.

Research Question 4

What are the ICT skills needed by business studies teachers in data processing?

The data for answering this research question were analyzed and presented in table 4.

Table 4: Means and Standard Deviation of the responses of the respondents on ICT Skills Needed by Business Studies Teachers in Data Processing

SN	Item Statements; ability to:	\bar{X}	SD	Remarks
1	classify data into groups	4.56	0.65	VHN
2	sort data into sequence	4.37	0.79	HN
3	enter and edit data	4.31	0.84	HN
4	insert rows and columns	4.46	0.76	HN
5	create a record and move from record to record	4.66	0.56	VHN
6	skills in analyzing data using statistical tools	4.37	0.84	HN
7	use available data processing software such as spread sheet	4.52	0.72	VHN
8	create simple data base structure	4.53	0.89	VHN
9	store and retrieve data in a suitable storage	4.36	0.85	HN
10	create a report using selected fields from the database or query	4.48	0.66	HN
11	create payroll for workers of different grade level	4.27	0.82	HN
12	format and print out results	4.48	0.66	HN
13	collect and store data	4.52	0.56	VHN
14	interpret result of analysis	4.48	0.79	HN
	Cluster Summary	4.43		HN

Keys: X = Mean
SD = Standard Deviation
VHN = Very Highly Needed
HN = Highly Needed

Data presented in Table 4 showed that 9 out of the 14 data processing skills had Mean values that ranged from 4.27 to 4.48 which showed that the 9 data processing skills were highly needed by business studies teachers in junior secondary schools in Bayelsa State. The remaining 5 items specifically, items 1, 5, 7, 8 and 13 had Mean values of 4.56, 4.66, 4.52, 4.53 and 4.52 respectively indicated that the five data processing skills were very highly needed by business studies teachers in junior secondary schools in Bayelsa State. The cluster summary indicated a Mean value of 4.43 which showed generally, that data processing skills were highly needed by business studies teachers in junior secondary schools in the state.

Discussion of Findings

Computer appreciation skills needed by business studies teachers in junior secondary schools in Bayelsa State

The findings on computer appreciation skills as indicated in table 1 were in conformity with the opinion of Philip (2001) who outlined computer appreciation skills as: the ability to identify

hardware components such as - keyboard, mouse, monitor/screen; match equipment to purpose such as digital camera to capture images, identify cursor, recognize the typical features of an application's window, title bar, tool bar, menu bar, status bar, scroll bar; have a knowledge of drop-down menu; what sub menus contain and convention for activating them. From the study, it was revealed that the twelve (12) computer appreciation skills are needed by business studies in Bayelsa State for effective teaching in the junior secondary schools. The findings agreed with the opinion of White and Hubbard (2002) which stated that a computer literate teacher should have skills in the ability to programme and control a computer for personal, academic and professional goals. In the same view, Nwosu (2002) opined that business teachers would be expected to acquire skills, in computer literacy to be effective instructors so as to make the required progress.

Word Processing Skills Needed by Business Studies Teachers in Junior Secondary Schools in Bayelsa State

The findings on word processing skills needed by business studies teachers in Bayelsa State was revealed in table 2. It showed that business studies teachers needed skills on the sixteen (16) word processing skills identified. The findings agreed with Nwosu (2002) who emphasized that it is important for teachers to acquire the skills, knowledge and competencies in word processing to be efficient in the performance of their work.

Internet Skills Needed by Business Studies Teachers in Junior Secondary Schools in Bayelsa State

The findings on internet skills needed by business studies teacher in Bayelsa State were revealed in table 3. The findings were in conformity with the work of Leon (2003) which stated that the internet offers the best opportunity of getting specialized information from the web.

Data Processing Skills Needed by Business Studies Teachers in Junior Secondary Schools in Bayelsa State

Skills identified in data processing are revealed in table 4. The findings are in agreement with the work of Kogge (2009) which stated that data processing is used extensively in business and in nearly all areas in which computers are used such as education to process data electronically by the teachers; therefore, it is necessary for business studies teachers to possess the needed skills in these areas. This will make them to be more efficient in their teaching of the required skills.

Summary

The new curriculum of business studies for junior secondary schools in Bayelsa State contains some component of ICT such as computer appreciation, word processing, data processing, and internet which were absent in the old curriculum. Most business studies teachers in junior secondary schools in the state have some difficulties and deficiencies in teaching the ICT component of the curriculum.

These teachers were not trained with modern ICT technologies and facilities that necessitated their glaring inadequacies in this regard. This suggests that the training they received seems to be irrelevant to the present curriculum because of technological changes taking place in work places where the students will find themselves after graduation. The

inefficiency of teachers of business studies in imparting ICT skills to JSS students has been noticed in the students' inability to do well in work places. Ademiluyi (2007) observed that most business studies students do not have the ability to succeed in private enterprise. Those who tried to work in business centres where information is processed with modern technologies find it really difficult to manipulate computers and other ICT equipment.

Olufemi and Onyenu (2010) similarly affirmed that the influence of technologies has rendered manual skills inadequate for the world of work while creating needs for new sophisticated skills. Therefore, it is necessary to determine ICT skills needed by business studies teachers for effective instruction in junior secondary schools in Bayelsa State.

To address this problem, therefore, the following specific objectives were pursued:

1. To determine ICT skills needed by business studies teachers in computer appreciation
2. To determine ICT skills needed by business studies teachers in word processing,
3. To determine ICT skills needed by business studies teachers in the use of Internet,
4. To determine ICT skills needed by business studies teachers in data processing.

These procedures were adopted in this study to determine the ICT skills needed by business studies teachers in junior secondary schools in Bayelsa State. Related Literature was reviewed to provide conceptual and theoretical framework for the study. Survey research design was used to carry out this study. Population size was 129 business studies teachers. The total population was surveyed, and constituted the respondents for the study. The instrument for the data collected was a structured questionnaire. The instrument contained 53 ICT (computer appreciation, word processing, internet and data processing) skills and was subjected to face validity by three experts from the department of Vocational and Technology Education, Niger Delta University, Wilberforce Island. The 53 skills were grouped into four sections. The data collected was analyzed using Mean and Standard Deviation.

The following findings were made, based on the analysis of data.

1. Business studies teachers need all the computer appreciation skills listed
2. Business studies teachers need all the word processing skills listed
3. Business studies teacher need all the internet skills listed
4. Business studies teachers need all the data processing skills listed

Conclusion

Based on the findings of this study, the following conclusions were reached.

Business studies teachers in junior secondary schools in Bayelsa State need all the 53 ICT (computer appreciation, word processing, internet and data processing) skills identified for effective teaching and learning of ICT.

Recommendations

Based on the findings of the study, the researcher made the following recommendations:

1. Institutions of higher learning where business studies teachers are being trained should fully equip business education department with ICT gadgets so as to give them necessary training that would enable the teachers have full knowledge and skills they need to transfer to their students.

2. To increase professional development opportunities for business studies teachers to be retrained on the use of ICTs will help to integrate and utilize ICTs in junior secondary schools.
3. Business studies should be taught by well-equipped teachers, preferably business educators. This will be made possible by training more business educators.
4. Business studies teachers should look out for business offices with modern technologies and visit those places as excursions with their students.
5. The business education curriculum in colleges of education where business studies teachers are trained should also be reviewed from time to time. The review should take cognizance of the findings of this study, relating to ICT skills as required in computer appreciation, word processing, internet and data processing.

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