

INTEGRATING NEW TECHNOLOGY INTO THE LEARNING OF SHORTHAND SKILL TO ACHIEVE EFFECTIVENESS IN VOCATIONAL EDUCATION IN COLLEGES OF EDUCATION IN NIGERIA

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Abstract

The study was embarked upon to examine if new shorthand technology can influence effective learning in Colleges of Education in Nigeria. To achieve the aim of the study, one specific purpose, two research questions and one null hypothesis were stated to guide the study using a descriptive survey research design to conduct the study. A total 311 students in a College of Education were sampled for the study. A structured questionnaire developed and validated by the researcher was used for data collection. The internal consistency of the instruments was determined using test re-test reliability technique and it yielded coefficient of 0.81 using Pearson Product Moment Correlation. Data collected through the questionnaire were analysed using Mean to answer the research questions and Chi-square to test the null hypothesis formulated for the study. At the end, the study found among other things that keyscript system has influence on shorthand learning effectiveness among students in a College of Education in Nigeria and that there is relationship between keyscript system and effective note-taking in the College of Education. Based on the findings, it was recommended among others that National Commission for Colleges of Education (NCCE) should put mechanisms in place to ensure the integration of the new Keyscript System into the teaching and learning of shorthand to reflect the tremendous changes in the technological world.

Introduction

For more than a century Shorthand has been a major skill course in the business education programme which makes the business educators to be fully trained to perform specific duties in various offices. Shorthand writing is therefore a vocational skill course. Such duties include primarily taking dictation in shorthand which is later transcribed into longhand and the ability to effectively impart the knowledge to others when occasion demands. Hence it has served as a veritable tool in business education service delivery for more than a century.

Shorthand or “short-writing” is an abbreviated symbolic writing method that increases speed and brevity of writing as compared to longhand, a more common method of writing a language. The process of writing in shorthand is called stenography, from the Greek *stenos* (narrow) and *graphein* (to write).

Many forms of shorthand exist. A typical shorthand system provides symbols or abbreviations for words and common phrases, which can allow someone well-trained in the system to write as quickly as the words are pronounced. Abbreviation methods are

alphabet-based and use different abbreviating approaches. Several auto complete programmes, standalone or integrated in text editors, based on word lists, also include a shorthand function for frequently used phrases. Many journalists use shorthand writing to quickly take notes at press conferences or other similar scenarios.

Shorthand and transcription either manually, mechanically or electronically which is also called **stenography**, a system for rapid writing that uses symbols or abbreviations for letters, words, or phrases. Among the most popular modern systems are Pitman, Gregg, and Speedwriting

Remarkable improvements have taken place in every sphere of human endeavours since the advent and geometric progression of new technologies. These improvements have been noticeable in the education sector, making teaching and learning more meaningful and rewarding. New technologies are especially relevant in motor skill-related courses such as shorthand, word processing, computer engineering, etc, where graduates are expected to demonstrate skills and competencies required in the 21st Century that is technological driven so as to promote relevance and sustainability in the world of work.

New technologies have been found to possess the capacity to improve teaching and learning in the education system. This is evident in higher education programmes such as Vocational Education where the application of new technologies is already changing the teaching and learning processes (Onojetah, 2013).

Several researchers have found that the utilization of new technologies is essential for providing enough opportunities that make it possible for students to operate in an information age like the one we live in. Yelland (2001) argued that traditional education environment cannot be said to be suitable for developing students, particularly students of skill-related courses or discipline, to function or be productive in the different, complex and dynamic workplace of today society. Accordingly, any higher education level that fails to integrate new technologies into their various forms of teaching cannot claim to be developing their students for lifelong living in the 21st Century.

According to WIKIPEDIA Online Free Dictionary, Keyscript is the fastest shorthand system fully compatible with the standard keyboard. **It is new rapid, fully alphabetical shorthand.** This system uses only the lower case letters of the alphabet. It can be handwritten or typed. The saving in writing time with Keyscript is around 60%, so one will be able to write or type 2½ times as fast as normal English. Keyscript is faster to write than any other alphabetic shorthand system. (Greer (2014). Becky (2014) noted that Keyscript has really made taking notes in medical school so much easier and a lot less painful. She further stated that what makes this system unique is that one does not have to worry about the vagaries of English spelling while taking dictation.

Handwritten Keyscript is very fast due to the abbreviated shorthand system resulting from the application of simple rules and phrasing. Schools and Colleges depend heavily on lectures. Keyscript shorthand system offers a new method for making the process of writing lectures much easier.

Lecture note-taking influences the academic success of all high school and college students (Stahl, King, & Henk, 1991). As Spires and Stone (1989) pointed out, students will "increasingly have to depend on their ability to take notes in order to be successful in

the classroom." Keyscript shorthand system enables one to use abbreviations for note-taking. Lecture taking is prominent in tertiary level education classrooms.

Fisher and Harris (1994) found that students perform note-taking more effectively when they are allowed "to encode information" using abbreviations. McKeachie (1994) suggests that abbreviating of spoken information leads to an increase to the number of words in working memory and improvement of subject retention. Boyle (2001) concluded that use of abbreviations decreases hands and eyes engagement and enables one to record spoken information more easily.

Moreover, abbreviating the spoken word increases the attention and concentration span, and provides more time for students to comprehend class material. They can process spoken information into written form faster and it enhances retention of the information and can lead to improvement in overall organization of their notes. In addition, a higher writing speed allows more time to pay attention to handwriting legibility and style to make notes legible and readable. All of these benefits can easily be obtained through the use of keyscrip shorthand system.

Afemikhe, (2017) noted that technology-aided instruction has positive effect on instructional process and students learning just as Ezeonwurie (2008) opined that technology is offering new potentials for imparting knowledge on the part of the instructors.

From all indications, we live in a competitive environment where things are changing fast and for the better technologically. One sophisticated technology outdates the others. This is the reason Airtel Nigeria says "Life evolves - 3 G is great but 4 G is better."

Statement of the Problem

The impact of new technologies in teaching has become one of the most important and widely discussed issues in contemporary education. Education professionals argued that these technologies have the prospects for improving teaching and learning as well as showing workforce opportunities. Nonetheless, integration of new technologies into the teaching of shorthand has not been given the desired attention. In spite of the importance of shorthand to the intellectual development of the learner, it is still a well known fact that interest in the course is fast dwindling in recent times. Tertiary institutions no longer accord shorthand its much deserved importance. The worrisome question now is; can the new shorthand technology influence effective learning? This is what the study intended to discover.

Purpose of the Study:

The major purpose of the study was to examine if integrating new shorthand technologies in the N.C.E level of education can influence effective teaching. Specifically, the study examined if the new:

1. Keyscript System can influence shorthand learning effectiveness in Federal College of Education, Abeokuta, Ogun State.
2. Keyscript System can influence note-taking effectiveness in Federal College of Education, Abeokuta, Ogun State.

Research Questions

1. To what extent can Keyscript System influence shorthand learning effectiveness in Federal College of Education, Abeokuta, Ogun State?
2. To what extent can Keyscript System influence note-taking effectiveness in Federal College of Education, Abeokuta, Ogun State?

Research Hypothesis:

The following was tested at 0.05 level of significance.

1. There is no significant relationship between Keyscript System and effective learning of Shorthand in Federal College of Education, Abeokuta, Ogun State.

Methods

The descriptive survey design was adopted since it involved collection of data from individuals based on opinions, perception, among others. The population of the study consisted of 311 N.C.E. 11 students of Federal College of Education, Abeokuta, Ogun State. As a result of the small size of the population and in order to achieve the purpose of the study, purposive sampling technique was used for the study. Purposive sampling also called judgmental sampling according to Owoyele, Ezike and Ajayi (2017) is used when the researcher makes a choice of his sample on the ground of who he considers to be appropriate for a particular study. Instrument for the study was a structured questionnaire and had 20 questionnaire items. The respondents were required to indicate their views on a four point scale of Strongly Agreed =S.A, Agreed = A, Disagree =D, Strongly Disagreed = S.D that will be rated 4, 3, 2 and 1 respectively. The questionnaire was validated by a business educator. The reliability of the instrument was tested using Pearson Product Moment Correlation and a reliability index of 0.81 was obtained. Out of the 311 copies of the instrument distributed with the help of a research assistant only 298 copies representing 96% was properly filled and therefore used for the study. Data collected was analyzed using the descriptive statistics of mean to answer of research questions while Chi-Square statistic was adopted to test the hypothesis at 0.05 level the significance. The questionnaire items with a mean rating of 2.5 and above was accepted but any mean score that is equal to or less than 2.49 was rejected. . Calculated Chi-square value that is greater than critical value means that there is no significant relationship and the null hypothesis will be upheld. However, if the calculated Chi-square is less than the critical value then, it means that there is significant relationship and the null hypothesis rejected.

Results

Research Question One: To what extent can Keyscript System influence shorthand learning effectiveness in Federal College of Education, Abeokuta, Ogun State?

The data collected for the influence of Keyscript shorthand on learning effectiveness are presented in table 1:

Table 1: Mean scores of the extent to which Keyscript System influences shorthand learning effectiveness.

S/N	Items Remark	Mean
1.	It promotes guidance of students through individualized pathway. Accepted	2.62
2.	Easily understood because of one-letter abbreviation. Accepted	2.58
3	Enhances instructor's support. Accepted	2.77
4.	Providing learning opportunities to “anytime anywhere”. Accepted	2.87
5.	Application of simple rules stimulates students' interest. Accepted	2.77
6.	It promotes proficiency of shorthand skills. Accepted	3.61
7.	Easy to comprehend shorthand principles. Accepted	3.21
8.	Enhances skills retention. Accepted	3.61
9.	It reinforces basic language skills. Accepted	3.21
10.	It provides flexible system unlike symbols shorthand Accepted	3.35
11.	It does not involve complex rules. Accepted.	3.64
12.	It promotes the use of common abbreviations. Accepted	3.51
13.	Faster than non-alphabetical systems. Accepted	2.91
14.	It reduces memorization of symbols. Accepted	3.81
15.	Transcription time is reduced. Accepted	3.20
16.	It promotes the application of new technology. Accepted	3.50
Grand Mean		3.20
Accepted		

Source: Field Survey: 2019

Table 1 revealed that the mean score of the respondents ranged from 2.58 to 3.61 with a grand of 3.20.

This implies that the level of the extent to which Keyscript System influences shorthand learning effectiveness.

Research Question Two: To what extent can Keyscript System influence note-taking effectiveness in Federal College of Education, Abeokuta, Ogun State?

The data collected for the influence of Keyscript shorthand on note-taking effectiveness are presented in table 2:

Table 2: Mean scores of the extent to which Keyscript System influences note-taking effectiveness.

S/N	Items Remark	Mean
1.	Saving in writing time improves performance Accepted	2.64
2.	Phrasing makes reading back notes easier. Accepted	2.57
3.	Shortness of words makes writing very fast. Accepted	3.01
4.	It is very flexible in writing. Accepted	2.58
5.	Perfect for note-taking in all fields. Accepted	2.50
6.	Taking down notes becomes more detailed. Accepted	3.80
7.	Recording information is easier. Accepted	3.10
8.	It enhances note taking faster than currently do. Accepted	2.91
9.,	It enhances academic success of all high school students. Accepted	2.86
10.	It promotes good note taking. Accepted	3.00
Grand Mean Accepted		2.90

Source: Field Survey: 2019

The result in Table 2 showed that the mean scores of the respondents ranged within 2.57 to 3.64 with a grand mean of 2.90. This implies that Keyscript System influences note-taking effectiveness.

Hypothesis

There is no significant relationship between Keyscript System and effective learning of Shorthand in Federal College of Education, Abeokuta, Ogun State. Questionnaire items 1-16 were used to test the hypothesis. The result of the Chi square statistical analysis is presented as follows in Table 3.

Table 3: Chi-square analysis of the relationship between Keyscript System and effective learning of shorthand in Federal College of Education, Abeokuta, Ogun State.

N	298
Chi-Square	571.249
Df	15
Asymp. Sig.	.000
Monte Carlo Sig. Sig.	.000
95% Confidence Interval Lower Bound	.000
Upper Bound	.007

The result of data analysis in Table 111 revealed a significance value of .000. Since the computed significance of .000 is less than the alpha significance of 0.05 at which it is being tested, the null hypothesis which states that there is no significant relationship between Keyscript System and effective learning of shorthand in Federal College of Education, Abeokuta is hereby rejected.

Discussion of Findings

Responses of students on the extent to which Keyscript System influences learning effectiveness in research question one indicated that there is significant relationship between Keyscript System and shorthand learning effectiveness. From the result of the analysis above, a grand mean of 3.20 was obtained which is above rejection level. The finding agrees with the assertion of Garbe & Garbe (2007) that integrating new technologies into the teaching and learning of shorthand will go a long way in developing the students' skills and competencies, their motivation and knowledge. According to Afemkhe (2017), technology aided instruction has positive effect on instructional process and students learning. This finding is in consonance with the assertion of Ezeonwune (2008) about advancement in technology when he asserted that technology is offering new potentials for imparting knowledge on the part of the instructors.

Regarding the second research question, the result indicated that Keyscript System influences note-taking effectiveness because all the ten items on the extent to which Keyscript System influences note taking effectiveness indicated a grand mean of 2.90 which falls above the rejection level. Executive Secretary Magazine (ESM, 2014) asserted that in the real world, most administrative professionals know that each word is important and learning alphabetic shorthand is the perfect way to ensure one never misses anything. Supporting this view, Becky (2014) noted that Keyscript has really made taking notes in medical school so much easier and a lot less painful.

With reference to the hypothesis, there is no significant relationship between Keyscript System and shorthand learning effectiveness. The analysis showed p-value to be less than the alpha level. The null hypothesis which states that there is no significant relationship between Keyscript System and shorthand learning effectiveness was therefore rejected, which implies that there was significant relationship between Keyscript system and shorthand learning effectiveness.

This result is based on the fact that the analysis in table 3 showed the significant value of .000 for the hypothesis. This finding is in consonance with that of Jegbufume, Utebor and Kifordu (2014), who found out that with the convergence of ICT, educational domain has opened up innovative methods of teaching and learning, especially in tertiary institutions. The finding agrees with the study of Fujii (1971), where respondents were satisfied with the work of the users of abbreviated long hand and felt that the promotional opportunities were about equal to those symbols stenographers.

Conclusion

Based on the results and discussions of the study, it was concluded that keyscript System relatively influences the effective learning of shorthand in Federal College of Education, Abeokuta. Therefore, integrating keyscript System into the teaching and learning of shorthand will help to open up innovative methods of teaching and learning in tertiary institutions.

Recommendations

Based on the findings and discussions above, the following recommendations were made:

1. National Commission for Colleges of Education (NCCE) should put mechanisms in place to ensure the integration of the new Keyscript System into the teaching and learning of shorthand to reflect the tremendous changes in the technological world.
2. Instructors should update and upgrade themselves in line with all alphabetic shorthand systems particularly Keyscript system in order to move with the age of technology which will in turn enhance productivity.
3. Students should be motivated and equipped with Keyscript system of alphabetic shorthand which is fully compatible with new technologies so that they can acquire the necessary skills needed to become employable or innovative in an ever – changing world.

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