

TEACHERS' EFFECTIVENESS IN USING NASCENT INSTRUCTIONAL DELIVERY TOOLS IN SELECTED PUBLIC SECONDARY SCHOOLS IN OBUDU LOCAL GOVERNMENT AREA OF CROSS RIVER STATE

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Abstract

The study was carried out to determine teachers' effectiveness in using nascent instructional delivery tools in selected public secondary schools in Obudu local government area of Cross River State. Two null hypotheses were formulated to guide the study. The research design used for the study was the survey research design. The population of the study involved all the teachers teaching financial accounting and related subjects in public schools in obudu local government area of Cross River State. The sampling technique adopted for this study is the simple and stratified random sampling technique. The sample for the study was made up of 50 teachers of accounting and related subjects such as business studies and commerce from 34 public secondary schools in Obudu local government area of Cross River State. The main instrument for data collection was a structured questionnaire titled "Nascent Instructional Delivery Tools and Accounting Teacher's Effectiveness". The questionnaire was divided into section A and B. The introduction reflected the identity of the researcher the aims of the research study and request or appeal to fill the questionnaire. Section A elicited the personal data of the respondents while section B contains the questionnaire items, and each contains two alternative resources namely: Very high extent, High extent, Low extent, and Very low extent. 4-point likert type questionnaires ranging from very high extent, high extent, low extent, and very low extent were used in a questionnaire. Data was analyzed with simple linear regression analysis at .05 level of significant. Based on the result obtained, it was concluded that; There is a significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting and there is a significant influence of flipped classroom as nascent instructional delivery tools on accounting teachers lesson delivery in public secondary Schools in obudu local government area. Based on the conclusion, it was recommended that; The Federal or State Government, as the owner of schools should ensure that staff re- training and development programmes on flip learning and also Federal or State Government, as the owner of schools should encourage teachers training and development programmes because it enhance the increase in organizational productivity.

Key words: Teachers', effectiveness, nascent, instructional and delivery tools

Introduction

Education has always been one of the most important areas of human civilization since ancient times, because the development of a country's education is closely related to its future development (Pires, 2019). The increased accountability to the society through effective teaching has triggered research interest in many countries of the world (Schwerdt & Wuppermann, 2019). Education in the 21st century has experienced a lot of innovative changes ushered in by technology (Pires, 2019). This changes has affected a wider area of coverage in educational institutions including teaching and learning with nascent instructional tools. Nascent instructional delivery tools that are just coming into existence or tools that are newly introduced into the educational sector (RoK, 2022). They are instructional tools that can be used for lesson delivery but are utterly new to the teachers who use them to deliver their lessons. Educational institutions all over the world have recognized the important roles technology play in the teaching and learning of environment. This is why teaching and learning all over the world has

experienced a shift in the existing traditional approach to accommodate the modern based learning environment with nascent instructional delivery tools. Some of these nascent instructional delivery tools are gaining popularity in education. They include; Mobile learning apps, these are educational applications that can be installed on mobile devices such as smart phones and tablets. They are over a wide range of learning resources and activities, including quizzes, videos and games, Longe(2022). Flipped class room, a flipped classroom model involves having students learn new material at home through video lectures and other online resources and then utilize classroom time for collaborative and interactive work, Al-Rahim(2021).

Nascent instructional delivery tools are still in the developing stage and are constantly evolving as new technologies emerge. Unfortunately, most teachers in developing nation's are yet to embrace the use of nascent instructional delivery tools for instructional delivery. They need to encourage a modern learning environment in schools today can be traced by the fact that the 21st century learner's live in an evolving technological society. Prensky(2011) refers to them as digital natives, this is because they were born in the digital age and are exposed to devices right from birth.

Instructional delivery is defined as the knowledge of teaching techniques and their application for learning to take place in such a flexible manner that would not distort the original intent of the teacher for being in the classroom. Instructional Delivery refers to the interaction among the student, the teacher, the content, and the knowledge, skills, dispositions the student will need for learning and collaborating with others in a diverse society and rapidly changing world. The process of instructional delivery involves applying a repertoire. Educators who use instructional strategies allow students to make meaningful connections between concepts learned in class and real-life situations. They offer an opportunity for students to demonstrate their knowledge. Knowing the type of method or strategies to apply in teaching and learning will enable a teacher to pass the message clearly to students which eventually will lead to an improved academic performance, Madura(2021). However, poor students' achievement or academic performance result among students is majorly an indication of the use of poor or wrong methodologies for instructional delivery and advised that more studies be done on instructional delivery strategies. Instructional delivery has been seen as the process showing every activity the teacher and the learner does in a classroom setting. So, every effort that the teacher makes to have a fruitful time with the students by exposing the contents, employing methods, strategies, the students' interaction with the environment, resources available and even the evaluation process sums up to mean instructional delivery. When a teacher consciously utilizes his training, knowledge, skills, and value and relays it to change the behavioral position of the learner, he is carrying out instructional delivery, Adenj(i2014).

Furthermore, With the development of the new era, science and technology are more developed, and people's thinking is more active. Students not only want to learn from textbooks but also are attracted by innovative knowledge. To improve the quality of teaching and provide students with a better education, nascent instructional delivery delivery tools are also widely used. Nascent instructional delivery tools pay more attention to improving students' values and abilities. Effective use of nascent instructional delivery tools in classroom, makes teaching atmosphere more relaxed, and there are multiple technology products to assist teaching and learning of accounting.

Mobile learning is the delivery of learning materials and experiences through portable electronics, such as smartphones and tablets. It allows learners to access educational resources and participate in learning activities anytime and anywhere. Mobile learning can be accessed both online and offline. Online mobile learning requires accessing educational content and participating in learning activities through an internet connection. On the other hand, offline mobile learning involves accessing educational content and learning activities without an internet connection, using pre-downloaded resources. The best approach may depend on the

specific learning needs and preferences of the learner, as well as the availability of internet connectivity. Mobile devices are widely used in the digital age. Social network sites, which are becoming indispensable with Web 2.0 technologies, facilitate acceptance of mobile devices by teachers and students.

The educational use of mobile devices in and outside of the classroom helps students develop positive attitudes towards courses (Özdamar Keskin, 2011). Students' interest and motivation are enhanced by mobile learning (Ozan, 2013). Moreover, the use of mobile devices in the learning environments encourages students to participate in learning activities. Therefore, it can be said that mobile devices may become a necessity for students and educators (Yılmaz and Akpınar, 2011).

One of the advantages of mobile learning is the ability to provide access to learning contents out of the course time. Mobile learning management systems might be used to provide this. Additionally, mobile learning contents are produced based on design principles for qualified interactions. Researchers suggest that the duration of access time should be increased (Çelik, 2012). Moreover, determining and reporting duration and number of the visit session in the mobile learning system are important (Sayın, 2010; Martin & Ertzberger, 2013). At the same time, various technical regulations are proposed for effective learning through mobile learning such as rapid and wireless internet network infrastructure, big screen size and mobile applications in the native language of students, so that students will not be exposed to extraneous cognitive load (Anderson, Franklin, Yinger, Sun, & Geist, 2013; Ozan, 2013; Royle, Stager & Traxler, 2014; Sur, 2011). Being distractive, challenges in use and technical issues are seen as problems that have to be solved in mobile learning (Gikas & Grant, 2013). There are implications and recommendations for implementation in mobile learning.

In recent years, educators have used the technological developments in education to create a more effective learning environment in which learning does not seem to be limited to the classroom environment and teachers may not be obliged to spend most of the class time delivering lectures instead, they can have tutorial roles while students can also take different roles and be more actively involved in the learning process (Tan et al., 2017). One of the instructional models that follows this technology-related learning approach is flipped learning because it utilizes technological tools, including recorded lessons and videos, to create more engaging experiences for learners. The concept of flipped learning is that the teacher-student roles are changed in a way that the amount of direct instruction presented by the teacher during class time is minimized while the cooperative and collaborative contribution of students to the teaching process is maximized in class (Sams and Bergmann, 2013). Flipped classroom involves assigning what is traditionally done in the classroom as homework, and the homework is then completed in class; Instead of listening to a lecture in the class and doing homework at home, students watch video lectures and complete what has traditionally been known as homework in class under the guidance of the instructor (Baker, 2000). Flipped learning is a pedagogical approach that transforms direct instruction from the group learning space into a dynamic, interactive learning environment where the teacher guides students while applying concepts and engaging in the subject matter (MacKinnon, 2015; Teo et al., 2022). The goal of the flipped classroom is to maximize face-to-face time with students and instructional materials, which help increases students' knowledge (Bull et al., 2012). The need for integrating technology in education as an innovation, motivates instructors and institutions, in the last years, to search for new educational methods that fit the needs of the current student profile (Al-Rahmi et al., 2021). Flipped Learning is based on several theoretical foundations. The first foundation is blended learning which transforms the lecture from class into online delivery and uses face-to-face class time (Abeysekera and Dawson, 2015). The second one is constructivism theory (Bruner, 1960), which indicates that learning occurs when a student works either with a more skilled adult or peer to solve problems that are just beyond her/his actual abilities (Jantakoon and Piriyasurawong, 2018).

In constructivism, “knowledge is actively constructed by the learner, not passively received from the outside. Learning is something done by the learner, not something that is imposed on the learner” (Sjøberg, 2010, p. 3). The flipped learning approach supported by the constructivist theory should enable learners to engage in communicating, imaginative, and collaborative activities during knowledge construction (Kim and Bonk, 2006), and this approach requires learners to be active constructors of knowledge and use cooperative and collaborative learning, to reflect and, lastly, gain meaningful learning experiences to enhance their learning (Erbil, 2020). Vygotsky’s theory of mediation in digital learning is another theoretical construct of this review. Based on this theory, technology can be related to psychological and cognitive states. According to Zidoun et al. (2019), education programs should consider the role and impact of technological developments on learning. The concept of technological mediation, inspired by Vygotsky’s (1986) theory of tool mediation, aims to gain insight into the ways in which technology actively co-shapes the relation between people and the world through various mediating effects. De Boer et al. (2018) explain that this understanding of technological mediation emphasizes “the primacy of the relatedness between emotional states of people, technologies, and the world” (p. 300). And the last foundation is active learning (Lemmer, 2013), which emphasizes student activity and engagement in the learning process (Prince, 2004).

Nowadays, technology is regarded as one of the most significant components of education. Based on von Lindeiner-Stráský et al. (2020), perspective, the growth of technology has radically changed instruction and education. They stated that the integration of technology into educational contexts, makes teachers re-evaluate their use of methodology to attain their objectives and improve learning effectiveness. Aiming to enhance learners’ achievements in educational contexts, the method known as a flipped classroom has drawn the attention of many researchers (e.g., Cheng P. W. *et al.*, 2019; Jang and Kim, 2020; Tsai and Wu, 2020; Zou, 2020; Yulian, 2021). Durak (2018) declared that flipped learning approach, as a prominent approach, is highly useful in the integration of technology into education to increase success. Sajid et al. (2016) considered flipped learning one of the blended learning approaches. They asserted that blended learning is the combination of two instruction modes, e-learning and didactic (face-to-face) teaching. However, they maintained that blended learning is more traditional, while flipped learning is more digital. Collaborative and cooperative learning as two distinct methods can also be integrated into flipped learning approaches (Erbil, 2020). Utilization of the cooperative and collaborative learning methods in a flipped classroom environment is at a development stage, and there are no clear data regarding its results (Munir et al., 2018). However, the existing research has concluded that utilizing cooperative learning methods in a flipped classroom environment has a positive impact on students’ academic success levels (Zhang, 2018).

Flexible environment, learning culture, intentional content, and professional educator is regarded as the four pillars of flipped learning. Their purpose is to provide a practical roadmap for adopting the flipped learning approach (Sailsman, 2021). Hamden and McKnight (2013) stated that flipped classrooms allow a variety of learning modes; educators often physically rearrange their learning space to accommodate the lesson or unit, which might involve group work, independent study, research, performance, and evaluation. Having a flexible environment, the students do not feel tense and nervous and do not need to rush to get every detail in a compact lecture, rather based on the flexibility, the students feel free to get help from their peers or consult the teacher whenever they want (Demirel, 2016). Instead of being a passive object of teaching, the students are actively involved in their learning process and have the chance to participate in each step. Therefore, learners’ culture has been changed by the advent of flipped learning (Chivata and Oviedo, 2018). Hamden and McKnight (2013) pointed out that “educators use intentional content to maximize classroom time in order to adopt various methods of instruction such as active learning strategies, peer instruction, problem-based learning, or mastery, or Socratic methods, depending on grade level and subject matter” (p. 15). Professional

educators as another pillar of flipped learning decide on the content, adapt the materials, choose the strategies, and maximize classroom interaction time (Bauer-Ramazani 2016).

Agustini (2021) pointed out that flipped learning is an appropriate approach to learning. In flipped learning approach, learners voluntarily and actively study the materials pre-class, and then other learning activities such as discussions, corporation, problem-solving, and practices are carried out during class time (Jung 2018). Belmonte (2019) stated that the pre-class self-learning phase brings the contents (previously prepared by the teachers) to learners' private space, and learners can use web-based social media and technologies with the help of videos and related exercises out of the class. They pointed out that flipped learning approach encourages flexibility, both time (contents can be viewed as many times as necessary and at any occasion), and space (they can be viewed anywhere). They also asserted that in-class activities can be devoted to group activities during class time. Moreover, Rahman(2020), pointed out that the flipped learning approach inverts teachers' and students' responsibilities in classrooms. Students are required to actively plan their learning process and interact with peers and teachers to acquire knowledge in the classroom.

Therefore, the shift of material consignment to the outside of the class and using the class time for higher-level activities like applying and examining the earlier learned materials are the primary components of flipped learning approach (Yilmaz and Baydas, 2017). Villalba et al. (2018) asserted that flipped learning approach, with its blended learning nature, shifts tasks traditionally executed in classrooms to external environments. Park et al. (2018) also compared passive instruction in traditional classrooms with flipped classrooms and highlighted the active role of students in the flipped classrooms as a student-centered participatory context. They also compared flipped classrooms and flipped learning. They mentioned that flipped classrooms create courses, texts, or lectures that can be viewed or read at the student's pace, and flipped learning refers to the combination of in-class or face-to-face education with online learning.

Hinojo (2019), stated that flipped learning approach turns the learner into an autonomous agent, who can significantly outperform observational, cognitive, and higher-order tasks. Based on Bloom's revised Taxonomy, flipped learning approach provides an opportunity for learners to use active learning strategies both in and outside classroom (Jensen 2015). Therefore, flipped learning approach is a pedagogical approach that encourages students' active participation, promotes support from teachers, and peers to handle homework, and allows more free time in class (Guo, 2019). Flipped learning approach has been useful for different stakeholders, including learners, teachers, and parents. The following table includes some studies leading support on this issue.

Recently, flipped learning has received a lot of attention in vocational and technical education. Flipped learning can help teachers and learners by moving the theoretical content outside the classroom and using class time for practical activities. Innovative models such as flipped learning can help improve the quality of vocational education, motivate students, and thus reduce the number of dropouts.

Purpose of the study

The main purpose of this study is to determine teachers' effectiveness in using nascent instructional delivery tools in selected public secondary schools in Obudu local government area of Cross River State. The specific objectives to guide the study are:

1. To investigate the extent to which mobile learning apps influence accounting teacher's lesson delivery, in public secondary Schools in Obudu local government area.
2. To determine the influence of flipped class room as nascent instructional delivery tools for the teaching and learning of accounting in public secondary schools in Obudu.

Research Questions

The following research questions were raised to guide the study

1. To what extent does mobile learning app influence accounting teacher's lesson delivery, in public secondary Schools in Obudu local government area?
2. To what extent does the use of flipped classroom as nascent instructional delivery tools influence the teaching and learning of accounting in public secondary schools in Obudu?

Statement of Hypothesis

The following hypothesis were raised and tested at 0.05 level of significance

1. There is no significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting.
2. There is no significant influence of flipped classroom as nascent instructional delivery tools on accounting teachers lesson delivery.

Research methodology

The research design used for the study was the survey research design. The study was carried out in Obudu Local Government in Cross River State. The population of the study involved all the teachers teaching financial accounting and related subjects in public schools in obudu local government area of Cross River State. The sampling technique adopted for this study is the simple and stratified random sampling technique. In choosing the respondents for the study the researcher employed a purposive sampling technique in the sense that all public secondary schools in the selected area in obudu local government area of Cross River State were selected for the study the sample was presented below. The sample for the study was made up of 50 teachers of accounting and related subjects such as business studies and commerce from 34 public secondary schools in Obudu local government area of Cross River State. The main instrument for data collection was a structured questionnaire titled "Nascent Instructional Delivery Tools and Accounting Teacher's Effectiveness". The questionnaire was divided into section A and B. The introduction reflected the identity of the researcher the aims of the research study and request or appeal to fill the questionnaire. Section A elicited the personal data of the respondents while section B contains the questionnaire items, and each contains two alternative resources namely: Very high extent, High extent, Low extent, and Very low extent. The instrument was validated by two expert in the department of Vocational Education University of Calabar. A 4-point likert type questionnaires ranging from very high extent, high extent, low extent, and very low extent were used in a questionnaire. The scoring of the questionnaire was done with the help of this current is this current is of the questionnaire was positively who did items

The reverse was the case for negatively worded items. Data would be entered into Microsoft Excel (v. 16.0) and analyzed with SPSS (V.20.0). Data was expressed in means (Mean \pm SD) for the different variables. The data collected were analysed using mean and standard deviation to answer the research question while the hypothesis was tested using Simple linear regression analysis. For each hypothesis, the procedures used in testing it are explained briefly, followed by the presentation and interpretation of the results. All decisions were taken at .05 level of significance, such that a null hypothesis was rejected if the P-value associated with the computed test statistic was less than .05, but retained if otherwise.

Presentation of results

Hypothesis one

There is no significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting

To test this hypothesis, since the dependent variable (instructional delivery tools for the teaching and learning of accounting) is continuous variable and the independent variable

(mobile learning apps) is also continuous, Simple linear regression was used, with results as shown in Table 1.

Table : Simple linear regression of significant influence of instructional delivery tools for the teaching and learning of accounting by mobile learning apps.

R-value	= .057	Adj. R-Squared	= .001		
R-squared	= .003	Standard. Error	= 10.036		
Source of variation	Sum of squares	df	Mean square	F-value	p-value
Regression	59.829	1	49.829	.003	.000
Residual	46095.149	49	64.592		
Total	46143.979	50			
Predictor variable	Unstandardized coefficient		Std. coefficient	t-value	p-value
	B	Std. Error			
Constant	93.123	3.782		19.481	.000
Mobile learning apps variable	.053	.058	.055	.869	.002

Significant at .05 level (P<.05)

The results in Table 1 show that an R-value of .057 was obtained, giving an R-squared value of .003. This means that about .010% of the total variations in instructional delivery tools for the teaching and learning of accounting is accounted for by the variation in mobile learning apps. The P-value (.002) associated with the computed F-value (.003) is less than .05. As such, the null hypothesis was rejected. This means that there is a significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting (is a significant predictor) instructional delivery tools for the teaching and learning of accounting is a significant predictor because of the positive standardized beta coefficient .055. The regression constant (93.123) makes significant contribution in the regression model (t=19.000, p=.002). So the model can be written mathematically as:

$$y = 93.123 - .055x$$

Where
 x = Mobile learning apps variable
 y = instructional delivery tools for the teaching and learning of accounting and 93.123 the regression constant

Hypothesis two

There is no significant influence of flipped classroom as nascent instructional delivery tools on accounting teachers lesson delivery.

To test this hypothesis, since the dependent variable (instructional delivery tools on accounting teachers lesson delivery) is continuous variable and the independent variable (flipped classroom) is also continuous, Simple linear regression was used, with results as shown in Table 2

Table 2: Simple linear regression of significant influence of instructional delivery tools on accounting teachers lesson delivery by flipped classroom.

R-value = .052		Adj. R-Squared = .002			
R-squared = .004		Standard. Error = 9.010			
Source of variation	Sum of squares	df	Mean square	F-value	p-value
Regression	58.8429	1	49.829	.000	.001
Residual	44095.149	49	64.592		
Total	44095207.8426	50			
Predictor variable	Unstandardized coefficient		Std. coefficient	t-value	p-value
	B	Std. Error			
Constant	91.313	3.782		19.481	.000
Flipped classroom variable	.053	.051	.056	.869	.003

Significant at .05 level (P<.05)

The results in Table 2 show that an R-value of .052 was obtained, giving an R-squared value of .004. This means that about .019% of the total variations in flipped classroom variable is accounted for by the variation in increase in instructional delivery tools on accounting teachers lesson delivery variable. The P-value (.001) associated with the computed F-value (.001) is less than .05. As such, the null hypothesis was rejected. This means that there is a significant influence of flipped classroom as nascent instructional delivery tools on accounting teachers lesson delivery. Flipped classroom variable is a significant predictor of instructional delivery tools on accounting teachers lesson delivery because of the positive standardized beta coefficient .046. The regression constant (91.313) makes significant contribution in the regression model (t=19.000, p=.000). So the model can be written mathematically as:

$$y = 91.313 - .056x$$

Where

x = flipped classroom variable

y = instructional delivery tools on accounting teachers lesson delivery.

and 91.313 the regression constant

Discussion of findings

The findings of the study are discussed as follows:

There is no significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting.

The first finding showed that there is a significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting.

This means that mobile learning apps significantly influence instructional delivery tools for the teaching and learning of accounting. The finding of the first hypothesis is in line with the study conducted by Özdamar Keskin, (2011) who maintained that Students' interest and motivation are enhanced by mobile learning. Ozan, (2013). Also supported that the use of mobile devices in the

learning environments encourages students to participate in learning activities. Therefore, it can be said that mobile devices may become a necessity for students and educators. Yılmaz and Akpınar, (2011). Are also on the opinion that one of the advantages of mobile learning is the ability to provide access to learning contents out of the course time. Mobile learning management systems might be used to provide this. Additionally, mobile learning contents are produced based on design principles for qualified interactions. Researchers suggest that the duration of access time should be increased. Being distractive, challenges in use and technical issues are seen as problems that have to be solved in mobile learning. There are implications and recommendations for implementation in mobile learning.

There is no significant influence of flipped classroom as nascent instructional delivery tools for the teaching and learning of accounting.

The second finding showed that there is a significant influence of flipped classroom as nascent instructional delivery tools for the teaching and learning of accounting.

This means that flipped classroom significantly influence instructional delivery tools for the teaching and learning of accounting. The finding of the second hypothesis is in line with the study conducted by Demirel, (2016) confirmed that instead of being a passive object of teaching, the students are actively involved in their learning process and have the chance to participate in each step. Therefore, learners' culture has been changed by the advent of flipped learning. Chivata and Oviedo, (2018) also supported this finding by pointing out that "educators use intentional content to maximize classroom time in order to adopt various methods of instruction such as active learning strategies, peer instruction, problem-based learning, or mastery, or Socratic methods, depending on grade level and subject matter" (p. 15). Professional educators as another pillar of flipped learning decide on the content, adapt the materials, choose the strategies, and maximize classroom interaction time (Bauer-Ramazani 2016). Agustini (2021) also pointed out that flipped learning is an appropriate approach to learning. In flipped learning approach, learners voluntarily and actively study the materials pre-class, and then other learning activities such as discussions, corporation, problem-solving, and practices are carried out during class time. The pre-class self-learning phase brings the contents (previously prepared by the teachers) to learners' private space, and learners can use web-based social media and technologies with the help of videos and related exercises out of the class. They pointed out that flipped learning approach encourages flexibility, both time (contents can be viewed as many times as necessary and at any occasion), and space (they can be viewed anywhere). They also asserted that in-class activities can be devoted to group activities during class time. Moreover, flipped learning approach inverts teachers' and students' responsibilities in classrooms. Students are required to actively plan their learning process and interact with peers and teachers to acquire knowledge in the classroom. Therefore, the shift of material consignment to the outside of the class and using the class time for higher-level activities like applying and examining the earlier learned materials are the primary components of flipped learning approach. Recently, flipped learning has received a lot of attention in vocational and technical education. Flipped learning can help teachers and learners by moving the theoretical content outside the classroom and using class time for practical activities. Innovative models such as flipped learning can help improve the quality of vocational education, motivate students, and thus reduce the number of dropouts.

Conclusion of the study

Based on the result obtained, it was concluded that; There is a significant influence of mobile learning apps as nascent instructional delivery tools for the teaching and learning of accounting and there is a significant influence of flipped classroom as nascent instructional delivery tools on accounting teachers lesson delivery.

Recommendations

Based on the conclusion, the following recommendations are made:

1. The Federal or State Government, as the owner of schools should ensure that staff re-training and development programmes are properly implemented in order to significantly improve learning and also encourages organizational goal attainment.
2. The Federal or State Government, as the owner of schools should encourage teachers training and development programmes because it enhance the increase in organizational productivity.

References

- Abeyssekera and Dawson, (2015). The nature of teacher engagement at an online high school. *British Journal of Educational Technology*, 45(5), 793-806
- Acquisition and Recall of Financial Information. *The New Review of Applied Expert Systems*, 13-31.
- Adegoke, B. A. (2011). Effect of multimedia instruction on senior secondary school students' achievement in Physics. *European Journal of Educational Studies*, 3(3), 537-541.
- Aliyu, Y. (2018). Effects of electronic presentation of lectures on student performance. Abuja: Unpublished Manuscript. University of Abuja.
- Al-Rahmi V. M, Beets, S. D., & Lobingier, P. G. (2021). Pedagogical techniques: Student performance and preferences. *Journal of Education for Business*, 76, 231–235.
- Aluko, K. O. (2014). Effects of cooperative and individualistic instructional strategies on students' problem-solving strategies on students' problem-solving abilities in secondary school chemistry in Ilesa, Nigeria. (Unpublished Ph.D thesis, University of Ilorin Nigeria).
- Antherson, J. S. (2018). Learning and teaching: Intelligent. Retrieved from <http://www.dmu.ac.uk/Jamiea/learningintelligence.html>.
- Apperson, J. M., Laws, E. L., & Scepansky, J. A. (2016). The impact of presentation graphics on students' experience in the classroom. *Computers & Education*, 47, 116–126.
- Apperson, J. M., Laws, E. L., & Scepansky, J. A. (2016). The impact of presentation graphics on students' experience in the classroom. *Computers & Education*, 47, 116–126.
- Bergmann, J., & Sams, A. (2013). Remixing chemistry class. *Learning and Leading with Technology*, 36(4), 22–27.
- Bull B. N. Ainsworth, P., D. Deines, C. X. Larson, and R. D. Plumlee (2012). *Introduction to Accounting: An Integrated Approach (Volume 2)*. (New York, McGraw Hill/Irwin).
- Cai, P. (2021). Thinking Skills and Creativity. ScienceDirect: Elsevier Ltd. Tersedia di: <https://doi.org/10.1016/j.tsc.2021.100922>
- Darling-Hammond, Wei B., Andree C., Richardson S., and Orphanos I. (2019). "Basics and Key Principles of Flipped Learning: Classes Upside Down." *International Journal of Languages, Literature and Linguistics*, vol. 2, no. 3, 2016, pp. 109-112.
- Gambari, A. I., & Olumorin, C. O. (2013). Effectiveness of video-based cooperative learning strategy on high, medium and low academic achievers. *The African Symposium: An Online Journal of the African Educational Research Network*, 13(2), 77-85.
- Ganesha, P., Nandiyanto, A. B., & Razon, B. C. (2021). Application of Online Learning during the Covid-19 Pandemic through Zoom Meeting at Elementary School. *Indonesian Journal of Teaching in Science*.
- Gikas, Joanne & Grant, Michael. (2013). Mobile Computing Devices in Higher Education: Student Perspectives on Learning with Cellphones, Smartphones & social media. *The Internet and Higher Education*. 19. 18–26. [10.1016/j.iheduc.2013.06.002](https://doi.org/10.1016/j.iheduc.2013.06.002).
- Hakielimu O, A., (2019). Trends in Selected Entry level Technology, Interpersonal, and Basic Communication SCANS Skills. *Journal of Employment Counselling*, 41, (2), 60-70.

- Jantakoon and Piriyasurawong, (2018). Learned helplessness and psychological adjustment: Effects of age, gender, and academic achievement. *Scandinavian Journal of Educational Research*, 45(1), 71-90. <https://doi.org/10.1080/00313830020042689>.
- Karthrine, (2016) Teachers characteristics and students' performance level in senior secondary school financial accounting. *Journal of empirical studies*, 1, (2), 48-53
- Kemdikbud. (2021). Mendikbudristek: Kecakapan Digital Tidak Hanya Mampu Gunakan Gawai Tetapi Cerdas dan Bijak Dalam Menggunakan. Jakarta: PMPK.
- Kerr A. A., (2021). Attitudes Towards Communication Skills among students'-Teachers' in Jordanian Public Universities. *Australian Journal of Teacher Education*, 35, (4), 1-15.
- Kim and Bonk, (2016). Basics and Key Principles of Flipped Learning: Classes Upside Down." *International Journal of Languages, Literature and Linguistics*, vol. 2, no. 3, 2016, pp. 109-112
- Lemmer B. N, (2013). Use of library space and the library as place. *Library & Information Science Research*, 34(2), 138-149. <https://doi.org/10.1016/j.lisr.2011.06.002>
- Levasseur, D. G., & Sawyer, J. K. (2016). Pedagogy meets PowerPoint: A research review of the effects of computer-generated slides in the classroom. *The Review of Communication*, 6(1-2), 101-123.
- Longe O. F. (2021). "Flipped Classroom in Organic Economics has Significant Effect on Students' Grades." *Frontiers in ICT Original Research*, vol. 4, 2021.
- MacKinnon, (2015). Factors affecting students' quality of academic performance: A case of secondary school level. *Journal of Quality and Technology Management*, 7(2), 1-14. Retrieved from <http://bit.ly/2YtpI2F>
- Mahhabah, A. M., (2021). An Analysis of Students' Perceptions About the Efficiency of Using of Zoom Cloud Meeting For Online Learning During Pandemic Covid 19. Postgraduate School, Universitas Islam Malang.
- Ogunkola, J. B., & Bilesanmi-Awoderu, A. O. (2019). Effects of laboratory and lecture methods on students' achievement in biology. *African Journal of Education*, 5(2), 247-260.
- Ozan, Ozlem & Ma, (2013). Scaffolding in connectivism mobile learning environment. *Turkish Online Journal of Distance Education*. 14. 14-2. Royle, Stager & Traxler, 2014
- Özdamar Keskin, (2011). Trends in Selected Entry level Technology, Interpersonal, and Basic Communication SCANS Skills. *Journal of Employment Counselling*, 41, (2), 60-70.
- Pires P. O, (2019). The Use of Technology in the Delivery of Instruction: Implications for Accounting Educators and Education Researchers. *Issues in Accounting Education* (Vol. 15, No. 1) 129-162.
- RoK E. T., (2022). Web-Based Instruction and Financial Reporting: The Effect of Pictures on the
- Royle, Stager & Traxler, (2014). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27(3), 264-271. <https://doi.org/10.1016/j.giq.2010.03.001>
- Sanjaya, W. (2014). *Media Komunikasi Pembelajaran*. Jakarta: Kencana Perdana Media Group.
- Sayin R, E, (2017). School Plant Administration and Secondary Schoolteachers' Effectiveness in the central senatorial district of Cross River State. Unpublished M.Ed thesis, Faculty of Education, University of Calabar, Nigeria. Martin & Ertzberger, 2013
- Schwerdt O. M. & Wuppermann, U. T (2019). The Utility of Graphical Representations in Text: Some Theoretical and Empirical Issues. *Journal of Research in Science Teaching* (Vol. 24, No. 2) 161-73.
- Serhan, D. (2020). Transitioning From Face-to-Face to Remote Learning: Students' Attitudes and Perceptions of Using Zoom During COVID-19 Pandemic. *International Journal of Technology in Education and Science*, 335-342.
- Setiani, A. (2020). Efektivitas Proses Belajar Aplikasi Zoom di Masa Pandemi dan Setelah Pandemi Covid-19. *Prosiding Seminar Nasional Pascasarjana UNNES*.

- Sjoberg, S., & Schreiner, C. (2010). The ROSE Project. An Overview and Key Findings. <http://roseproject.no/network/countries/norway/eng/nor-Sjoberg-Schreiner-overview-2010.pdf> Erbil, 2020
- Smaldino, S. E., Lowther, D. L., & Mims, C. (2015). *Instructional Technology and Media For Learning*. USA: Pearson.
- Suardi, M. (2020). The Effectiveness of Using The Zoom Cloud Meetings Application in The Learning Process. *International Conference on Science and Advanced Technology*, (pp. 590-602). Makassar.
- Sungur, S., & Tekkaya, C. (2013). Students' achievement in human circulatory system unit: The effect of reasoning ability and gender. *Journal of Science Education and Teaching*, 12(1), 59-64.
- Zidoun *et al.* (2019). "Echo 360 Preparatory Videos as Aids to "Flipping the Classroom". " *International Journal for the Scholarship of Technology Enhanced Learning*, vol. 1, no. 1, 2016, pp. 135-144.