

PERSONALIZED AND JIGSAW LEARNING STRATEGIES AS DETERMINANTS OF JOB PERFORMANCE OF BUSINESS EDUCATORS IN PRIVATE JUNIOR SECONDARY SCHOOLS IN RIVERS STATE.

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ABSTRACT

The study examined the influence of personalized and jigsaw learning strategies on job performance of business educators in private junior secondary schools in Rivers State. The study carried out in Rivers State, adopted a correlational survey design. The population comprised the 641 business educators in registered private junior secondary schools in Obio/Akpor LGA of Rivers State. Simple random sampling technique was used to select a sample size of 234 business educators, which comprised of 158 females and 76 males. Two (2) sets of instrument titled: Instructional Innovation of Business Educators Questionnaire (InsloBEQu) and Job Performance of Business Educators Questionnaire (JoPBEQu) were used for the study. The instrument was subjected to content and face validity. A test-retest method of reliability was adopted in this study. The researcher used Pearson Product Moment Correlation Coefficient to analyze and answer the research questions and to test the hypotheses that were formulated at 0.05 level of significance. The study revealed that there is a significant relationship between personalized learning and job performance of business educators in the aforementioned secondary schools in Rivers State and also that there is a significant relationship between jigsaw learning and job performance of business educators in the aforementioned secondary schools in Rivers State. The study concludes that personalized, and jigsaw learning strategies respectively have a significant relationship with the job performance of business educators in private junior secondary schools in Rivers State. The study recommended that business educators in private secondary schools should introduce and encourage personalized and jigsaw learning strategies of teaching and learning in order to boost student's academic performance.

Keywords: Personalized and Jigsaw Learnings, Job Performance, Business Educators, Private Junior Secondary Schools, Rivers State.

Introduction

Education is the key for positive change in the society because of its far reaching effects on growth and development in all sectors of the economy. Teaching and learning are the major activities in a country's educational system. This implies that teaching and learning are the most important activities in educational enterprise. It is an organized activity to bring

about a positive change. In line with the above, business education, according to Okoye (2013) is an education program that orientate students in: art of business making (marketing), typing and shorthand skills (currently competing with computer appreciation and operation), service delivery, secretarial jobs, stenography, account clerking, office information system and management. He further elaborated that business education prepares students in two interrelated areas; Education for business and Education about business.

According to Organisation for Economic Co-operation and Development(OECD) (2015), instructional innovative strategies in teaching would improve effective skills strategy because innovations rests on people with the knowledge and skills to generate new ideas and technologies, bring them to the market, and implement them in the workplace, and who are able to adapt to structural changes across society; a sound, open and competitive business environment, sustained public investment in an efficient system of knowledge creation and diffusion, increased access and participation in the digital economy and sound governance and implementation.

One of the primary motives of introducing instructional innovation is to improve teachers' job performance (Louis, Leithwood, Wahlstrom, Michin, Gordon, Thomas & Moore, 2010). According to Özdemir and Gören (2017), teachers' job performance is defined as their contribution to the achievement of educational goals and objectives, while Borgatti and Cross (2013), maintained that teacher job performance is the teachers` ability to integrate the experience, teaching methods, instructional materials, knowledge and skills in delivering subject matter to the students in and outside the classroom. Teacher job performance as defined by Sonnentag, Volmer and Spychala (2010) has to do with teachers' behavioural aspect which refers to what people do while at work, the action itself. Innovational materials have great significance in promoting teachers' job performance in the classroom. Teaching and learning cannot yield positive results without the teacher making use of some educational resources during classroom presentations (John, 2016; Louis, et al., 2010). This means that for any subject taught in secondary schools, relevant learning resources (materials) are necessary for teaching in order to meet the instructional objectives as indicated by Federal Republic of Nigeria (2013). The level of teachers' job performance and their success in teaching various subjects in secondary schools is greatly dependent on the degree and extent of utilization of up-to-date education resources which revolve around facilities, equipment and supplies like the physical plants, printed and non-printed materials (Mantei, 2010).

Statement of Problem

The wave of technological advancement has transformed life generally. The educational systems of the world are striving to move with the trend which has resulted to pedagogical innovations, innovative instructional media and complete transformation of the learning environment. However, some majority of business educators in public secondary schools in Rivers State are yet to fully imbibe these innovative instructional resources such as the use of projector, practical learning, e-learning (computer based instruction), etc. in the teaching and learning process but still prefer using only the conventional technique or process of teaching and learning which is the chalk and talk method instead of a fully

practical class that allows the students access to fully participate and follow up in the teaching and learning process.

Research Objective

1. Examine the relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State.
2. Determine the relationship between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State.

Research question

1. What is the relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State?
2. What is the relationship between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State?

Research Hypothesis

Ho1: There is no significant relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State.

Ho2: There is no significant relationship between jigsaw learning and job performance of business educator in private junior secondary schools in Rivers State.

Conceptual Review

Concept of Business Education

To a number of people, business education is all about preparation of students for entrance into the business world. Yet to some others, business education refers to business teacher education – the preparation of in-service education for secondary and post-secondary school business teachers. From a wider and more encompassing perspective, business education is seen as an aspect of the total educational programme that provides knowledge, skills, understanding, and attitudes needed to transfer business knowledge as well as perform in the business world as producer or consumer of goods and services that business offers.

Business education is therefore, education for and about business (Aluwong, 2011). According to the term, is an integration of business and education. It is an aspect of vocational and technical education – a comprehensive term referring to those aspects of educational process involving the study of technologies, related sciences and acquisition of practical skills, attitudes and knowledge relating to occupation in various sectors of economic and social life. Business education, according to Osuala (2014), is a programme of instruction which consists of two parts; a vocational education programme for office career through initial, refresher and upgrading education leading to employability and advancement in the office occupations, and general education; a programme to provide

students with information and competencies, which are needed by all in managing personal business affairs and in using the services of the business world.

In the view of Adukwe (2018), business education is an aspect of the total education programme which provides the knowledge, skill, understanding and attitudes needed by any individual to perform wisely in the business world as a producer or consumer of goods and services which business offers. Nwachukwu (2011) also defined business education as that broad area of knowledge that deals with a nation's enterprise system, such that it identifies and explains the role of business as a nation's economic institution and provides content and experiences that prepare workers and consumers in society. Business subjects as perceived by Okoli (2010), is an important part of general education which emphasizes skills and competency acquisition for use in office and business related occupations. Similarly, Ibrahim (2018) stated that business subjects encompasses knowledge, attitude and skills needed by all citizens in order to effectively manage their personal businesses and function effectively in their economic systems. In the view of Osuala (2012), business studies is a training system that will make him/her fit into the world of work. In support of the above, Nwanewezi (2010) describes business subjects as encompassing education for office occupations, business teaching, business administration and economic understanding.

Concept of Teachers' Job Performance

The term performance has been defined differently by different scholars basing on the perspective from which they approach it. According to Summermatter and Siegel (2019), it may imply efficiency, economy, results, or return (profits) on investment. Some scholars have viewed performance as the behavioural aspect that defines the way in which organizations, teams and individual employees get work done; it is the output record of a specific job function or activity at a given time (Armstrong, 2013). Performance is the degree to which an employee and organizational goals are met (Feng, 2010; Koko & Nabie 2019). It comprises both behaviour and outcomes (Armstrong, 2013; Wakkala, Danjuma & Bashir, 2022). Behaviour comes from the worker who transforms performance from abstraction into action leading to outcome (Kalyani, 2016). Feng (2010) identified three directions from which performance can be viewed, that is, results oriented performance, conduct oriented performance and the integration of conduct and result oriented performance. Several researchers throughout the evolution of organizational theory have focused on the best way to to measure individual and organizational performance and realized that it is a dynamic concept that varies across geographical space, time and scholarly schools of thought (Kalyani, 2016).

Performance entails a mixture of doing a job effectively and efficiently, with a minimum degree of employee created disruptions (Decenzo & Robbins, 2018).Katarasibwa (2016) viewed teacher performance to mean the process by which the teacher is able to realise a maximum requirements level of their job in an effort to fulfil the school objectives. Umar (2018) defined teacher performance as the overall classroom management, effective teaching, motivation to teach, school and classroom punctuality as well as good team work. He further asserted that teachers' performance is the extent to which the teacher achieves school objectives through lesson preparations which involve making schemes of work, lesson plans, record of work done, preparing and using learners registers, actual classroom

teaching, assessment and evaluation of the learners, attending staff meetings, management of learners discipline, involvement in co-curricular activities, counselling and guidance. Umar (2018) outlined five constructs of teachers' performance: timely scheming of work; timely lesson planning; lesson delivery/actual teaching; maintenance of records of work covered and teachers physical presence in school.

Instructional Resources and Student's Academic Performance

In his study Adeogun (2011) revealed a strong positive link between instructional resources and academic performance. According to Adeogun, schools that possess more instructional resources performed better than schools that have less instructional resources. This finding supported the study by Babayomi (2019) that private schools performed better than public schools because of the availability and adequacy of teaching and learning resources. Adeogun (2011) noted that there was a low level of instructional resources available in public schools and hence commented that public schools had acute shortages of both teaching and learning resources. He further commented that effective teaching and learning cannot occur in the classroom environment if essential instructional resources are not available.

Fuller and Clark (2014) suggested that the quality of instructional processes experienced by a learner determines quality of education. In their view they suggest that quality instructional materials create into the learners quality learning experience. Mwiria (2015) also supports that students performance is affected by the quality and quantity of teaching and learning resources. This implies that the schools that possess adequate teaching and learning materials such as textbooks, charts, pictures, real objects for students to see, hear and experiment with, stand a better chance of performing well in examination than poorly equipped ones.

Personalized Learning and Job Performance of Business Educators

The educational community is frequently called upon for reforms in offering high-quality learning opportunities to all students. One of the latest learning opportunities is through the development of personalized learning plans. Personalized learning plans place the student at the center of the teaching and learning classroom experience, reaching a variety of learning modalities, using a multitude of techniques and methodologies, and providing access to technologies to facilitate individual learning styles and topics (Wey & Okagbare, 2021). Personalized learning has been defined in the Glossary of Education Reform as a diverse variety of education programs, learning experiences, instructional approaches, and academic support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students or an alternative to one-size-fits-all instruction; it is student-centered learning (Tomlinson, 2017). Cuban (2018) describes personalised learning as like a chameleon it appears in different forms, suggesting these forms can be conceptualised as a continuum of approaches: from teacher- led to student-centred classrooms, with 'hybrid' approaches in between. Sebba, Brown, Steward, Galton & James (2017) provides a more comprehensive definition of personalized learning with the statement that personalized learning is about tailoring education to individual need, interest and aptitude so as to ensure that every pupil achieves

and reaches the highest standards possible, notwithstanding their background or circumstances, and right across the spectrum of achievement. The U.S Department of Education (2010) moved beyond just the tailoring of education and discussed the need for the personalization of the environment as well, stating: Personalization refers to instruction that is paced to learning needs (i.e., individualized), tailored to learning preferences (i.e., differentiated), and tailored to the specific interests of different learners. In an environment that is fully personalized, the learning objectives and content as well as the method and pace may all vary. Maguire, Ball and Braun (2013) defined personalized learning as an emerging method for changing from the traditional way of learning that provides flexibility for students and teachers in how teaching and learning occurs. It is shifting the responsibility and control from what students and teachers have traditionally done and it requires both students and teachers to shift their roles in the classroom.

Redding (2013) attempts to expand on the 2010 definition of personalized learning given by the United States Department of Education by asserting the importance of the teacher in personalized learning by asserting that there is a multi-dimensional role for the teacher and to affirm explicitly a place for the personal competencies of motivation, metacognition, and social/emotional learning. Personalized learning may or may not include the use of technology or it can be a blend of the two. The teacher's role in personalized learning goes well beyond just providing students with a path to discovery, whether it is with the use of technology or not. The teacher must also become more than a facilitator. The organization of the curriculum and a continual monitoring of progress by the teacher is still the most vital part of the learning process, as they have the power of relational suasion unmatched through any type of technology. The teacher's success at transitioning into a new role allows the student to find their voice and agency in their own learning and engagement.

Perhaps the most comprehensive and complex definition of personalized learning comes from Murphy, Redding and Twyman (2017) from their work with the Center of Innovations in Learning (CIL). They state: Personalization refers to the teacher's relationships with students and their families and the use of multiple instructional modes to scaffold each student's learning and enhance the student's personal competencies. Personalized learning varies the time, place, and pace of learning for each student, enlists the student in the creation of learning pathways, and utilizes technology to manage and document the learning process and access rich sources of information. Regardless of definition, a common theme is missing in each. None of the current definitions of personalized learning specifies the exact roles of teachers or students within personalized learning. The distinctive features of personalized learning continue to be vague and represent a means to improve student motivation, engagement, and outcomes (Prain, Cox, Dorman, Edwards & Farrelly, 2012). Common to all the definitions of personalized learning is that it requires students to master personal competencies as a foundation to a successful experience in personalized learning.

Redding (2014a) identifies a personal competency framework made up of cognitive competency, metacognitive competency, motivational competency, and social/emotional competency. Redding (2014a) indicates that the primary purpose of schooling is for students to master skills and knowledge through the curriculum. There should also be an intentional

effort by educators to develop personal competencies within students that lend to student success in the primary goal. Mastery is a marker that demonstrates specific knowledge or skills based on objective criteria. This is different from competence, which is having a specific degree of knowledge or skill to perform a functional role. Competency is not a marker but is instead continual accumulation of skills and capabilities. The intentional effort by educators to teach and develop competencies in students is what is missing in the traditional model of education. A student's ability to manage his/her learning, evaluate understanding, revise how academic goals are met, and student agency, requires routines and processes that can be learned. The four competencies therefore connect foundationally to personalized learning in that they help the student find a sense of self-worth, which leads to the development of habits and behaviors that lead to an enlarged capacity to learn.

Redding (2014b) moves beyond the personal competency framework and discusses how the four competencies relate to personalized learning. This literary resource provides the concept of relational suasion, which is a teacher's ability to influence a student's learning, motivation, meta-cognitive competencies and social/emotional competencies through the teacher's personal knowledge and interaction with the student. It is, in fact, this personal knowledge gained by the teacher that helps to understand the student's learning needs (McLaughlin, Talbert, Kahne & Powell, 2010). Relationships between students and teachers are, therefore, a very vital aspect of developing the personal competencies in students as well as in the successful implementation of personalized learning also. This need for deeper knowledge through deeper relationships means a shift in the role of the teacher from the traditional model of education.

Jigsaw Learning and Job Performance of Business Educators

Jigsaw teaching method is cooperative activities that involve students to effectively teach each other with teacher's guidance. According to Aronson (2010) Jigsaw teaching method is a student centred method of teaching and learning employed where by students are grouped in the classroom and each student in the group is assigned his/her role to play. The jigsaw technique is a method of organizing classroom activity that makes students dependent on each other to succeed (Perkins & Tagler, 2011). In jigsaw method students are grouped in two stages namely home group and expert group (Qiao & Jin, 2010). Also, in Jigsaw teaching method it is the responsibility of teacher to share students into different groups. Muhammad (2011) observed that Jigsaw teaching method allows students to share information with other groups, each student is accountable for the success of the group, learns a lot of material quickly and also helps to developing student's cooperative skills and develop their communication skill. Qiao and Jin (2010) stressed that when students are involved in solving problems it promotes their thinking capacity, increase their understanding of the content and give opportunity for better application of the knowledge. The home group is formed with the aim of assigning topic to each group member and discussing the topic in general while the expert group is formed with the aim of studying the subtopic and become more knowledgably in that aspect (Qiao & Jin, 2010). The success of each group depends on the participation of each individual in completing their task. This means the Jigsaw strategy effectively increases the involvement of each student in the activity.

The Jigsaw Strategy is an efficient way to learn the course material in a cooperative learning style. The jigsaw process encourages listening, engagement, and empathy by giving each member of the group an essential part to play in the academic activity. Group members must work together as a team to accomplish a common goal; each person depends on all the others. No student can succeed completely unless everyone works well together as a team. This cooperation by design facilitates interaction among all students in the class, leading them to value each other as contributors to their common task (Darling-Hammond, 2017). According to Aronson & Goody (2010) Jigsaw is a well-established method for encouraging group sharing and learning of specific content. This technique can be used as an instructional activity across several days and is best to use when there is a large amount of content to teach. Doing jigsaw cooperative learning strategy in learning activities, there are several advantages, as Tamah (2017) states, Students are encouraged to learn from their fellow students in their expert team and when they go back to their home team they are encouraged to teach one another the material they have worked on in the expert team which describes exactly how the jigsaw approach should work in a classroom. This approach sounds ideas for teacher because it allows the students to be actively engaged in teaching one another. The jigsaw also allows the teacher to be a facilitator, nor a director in the classroom, which is a trend in schools today.

As Efe and Efe (2010) analyzed how students assigned as group leaders in the jigsaw helped motivate the rest of the group. Result suggested that when given the title of group leader students worked to motivate other students to complete their work. It means that, this activity allows students to experience learning and contribute to their learning. According to Mengduo and Xiaoling in Crist (2012, the jigsaw classroom reduces students' reluctance and anxiety to participate in the classroom activities while increasing self-esteem and self-confidence. As well as Aronson and Patnoe (2011), state jigsaw has proved effective at raising the self-esteem of students while improving their performance and increasing their liking for school and their enthusiasm about learning. In addition to helping students learn new material. The jigsaw helps build social skills. Anderson and Palmer (2011) reports that the jigsaw approach is backed by research showing it to motivate students to work together, share ideas, pursue common goals, and develop self-esteem. The jigsaw cooperative learning also provides a way to help students become active in classroom activities and/ or lessons. When students are anxious or sometimes even afraid to contribute, they are going to miss information that is needed to fully understand the material. The jigsaw allows students to work with one another and develop a sense of being needed. By involving in the activities, the students focus on listening, speaking, co-operation, reflection, and problem-solving skills.

Educator Roles in Personalized Learning

Despite many educators and administrators acknowledging the power and potential of personalized pedagogy, few are implementing it within a structured pilot or action research study (Patton, 2017). This has limited the potential impact on learners, who research shows are in desperate need of a new approach to 'school' (Van Damme, 2016). A contributing factor to this problem is that in-service educators may learn about personalized learning in isolation, without ever having experienced it themselves as a learner, but most

never study personalized learning at all (Pane, Steiner, Baird, & Hamilton, 2015). This disconnect between expected practice, and support for developing the explicit skills required for educators to actualize these expected practices is not a new one (Darling-Hammond & Oaks, 2019). Burr, McCully and Wicker (1970) in Lee (2014) proposed an approach to curriculum design in a middle school setting aimed at harnessing personalized learning needs for unit development. In this approach, personalized learning is viewed as a) the total environment for learning, b) the interests and other variables of individual students, c) the teaching-learning situation and d) the participation of students in the planning, doing, and appraising of their learning experiences. The authors conclude that those wishing to personalize learning should first have a concrete understanding of what it means to design for PL and have a personal commitment to make it work. Burr et al., also state that educators interested in implementing personalized learning should also acknowledge that the teacher will be playing many roles. In 1970, those many roles included instructional design, data collection and utilization, adaptive curriculum design, and more. In 2020, some of those many roles a teacher must play in a personalized learning environment are accomplished by leveraging technology (Lee, 2014).

Methodology

This study adopted a correlation survey design. This study was carried out in Rivers State. The population comprised the 641 business educators in registered private junior secondary schools in Obio/Akpor LGA of Rivers State. Simple random sampling technique was used to select a sample size of 234 business educators, which comprised of 158 females and 76 males. Two (2) sets of instrument titled: Instructional Innovation of Business Educators Questionnaire (InsIoBEQu) and Job Performance of Business Educators Questionnaire (JoPBEEQu) was used for the study. The instrument was subjected to both content and face validity. A test-retest method of reliability was adopted in this study. The researcher used Pearson Product Moment Correlation Coefficient to analyze and answer the research questions and to test the hypotheses that were formulated at 0.5 level of significance.

Presentation of Research Questions

Research Question 1: What is the relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State?

Table 1: Correlation Coefficient between Personalized Learning and Job Performance of Business Educators in Private Junior Secondary Schools

Variables	N	ΣX ΣY	ΣX^2 ΣY^2	ΣXY	r	Remarks
Personalized Learning	210	418.2	1290.0	1128.1	0.82	Very Strong/Positive Relationship
Job Performance	210	322.3	1028.2			

Source: Researcher’s Fieldwork (2023)

Table 1 shows that the correlation coefficient between personalized learning and job performance of business educators in private junior secondary schools in Rivers State is 0.82. This shows a very strong and positive relationship between personalized learning and job performance of business educators. However, this implies that if personalized learning as a variable of instructional innovation is enhanced, business educators performance in the workplace would be high. This finding corroborated with Lee (2014) who proposed an approach to curriculum design in a middle school setting aimed at harnessing personalized learning needs for unit development.

Research Question 2: What is the relationship between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State?

Table 2: Correlation Coefficient between Jigsaw Learning and Job Performance of Business Educators in Private Junior Secondary Schools

Variables	N	ΣX ΣY	ΣX^2 ΣY^2	ΣXY	R	Remarks
Jigsaw Learning	210	393.4	1208.2			
				1029.4	0.66	Strong/Positive Relationship
Job Performance	210	322.3	1074..0			

Source: Researcher's Fieldwork (2023)

Table 2 shows that the correlation coefficient between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State is 0.66. This shows a strong and positive relationship between jigsaw learning and job performance of business educators. However, this implies that if jigsaw learning as a variable of instructional innovation is enhanced, business educators performance in the workplace would be high. This finding is in sync with the assertion of Muhammad (2011) who observed that jigsaw teaching method allows students to share information with other groups, each student is accountable for the success of the group, learns a lot of material quickly and also helps to developing student's cooperative skills and develop their communication skill.

Presentation of Null Hypotheses

Ho₁: There is no significant relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State.

Table 3: Test of Correlation of Relationship between Personalized Learning and Job Performance of Business Educators at 0.05 Level of Significance

Variables	N	Df	r-cal	r-critical	Decision
Personalized Learning	210				
		208	0.82	0.196	Significant/Rejected
Job Performance	210				

Source: Researcher's Fieldwork (2023)

Table 3 shows that the calculated r-value of 0.82 is greater than the r-critical value of 0.196. Therefore, since the computed r-value is greater than r-critical value, the hypothesis which states that there is no significant relationship between personalized learning and job performance of business educators in private junior secondary schools in Rivers State is hereby rejected. However, this implies that there is a significant relationship between personalized learning and job performance of business educators in the aforementioned secondary schools in Rivers State.

Ho2: There is no significant relationship between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State.

Table 4: Test of Correlation of Relationship between Jigsaw Learning and Job Performance of Business Educators at 0.05 Level of Significance

Variables	N	Df	r-cal	r-critical	Decision
Jigsaw Learning	210				
		208	0.66	0.196	Significant/Rejected
Job Performance	210				

Source: Researcher’s Fieldwork (2023)

Table 4 shows that the calculated r-value of 0.66 is greater than r-critical value of 0.196. Therefore, since the computed r-value is greater than r-critical value, the hypothesis which states that there is no significant relationship between jigsaw learning and job performance of business educators in private junior secondary schools in Rivers State is hereby rejected. However, this implies that there is a significant relationship between jigsaw learning and job performance of business educators in the aforementioned secondary schools in Rivers State.

Conclusion

The study concludes that teaching and learning are the major activities in a country’s educational system therefore, based on the findings of this study, it can be deduced that personalized, and jigsaw learning strategies respectively have a significant relationship with the job performance of business studies (business educators) in private junior secondary schools in Rivers State.

Recommendations

1. Business educators in private secondary schools should introduce and encourage personalized method of teaching and learning to boost students academic performance.
2. Jigsaw learning should be introduced and encouraged in both private and public secondary schools so that students can learn at ease.

REFERENCES

- Aronson, E. (2010). Nobody left to hate developing the emphatic schoolroom. *The Humanist*, 60, 17-21.
- Adeogum, A. A. (2011). The principal and the financial management of public secondary schools in Osu State. *Journal of Educational System and Development*, 5(1), 1-10.
- Adukwe, F. G. (2018). Use of instructional materials in social studies: impact on students performance in primary school leaving examinations in Botswana. *European Journal of Educational Studies*, 3(1), 111-118.
- Aluwong, O. O. (2011). *Educational technology in practice*. De New Creation Publishing House Ltd.
- Anderson. F.J. & Palmer. J. (2011). The jigsaw approach: Students motivating students. *Education*, 109(1), 59-62.
- Armstrong, M. (2013). *A handbook of human resource management practice*. Kogan Page Ltd.
- Aronson, H. & Patnoe, K. S. (2011). Official web site for Jigsaw classroom method. *Journal of Applied Linguistics and Language Research*, 3(6), 29-35.
- Aronson, E. (2010). Nobody left to hate developing the emphatic schoolroom. *The Humanist*, 60, 17-21.
- Babayomi A. A. (2019). Comparative study of the Teaching and Learning Resources in Private and Public Secondary Schools in Logos State. *Masters Thesis*, Department of Educational Administration, University of Lagos, Nigeria.
- Borgatti, S. & Cross, H.D. (2013). *Information and management: A Contemporary perspective*. Macdonald and Evans Limited.
- Darling-Hammond, L. (2017). What is personalized learning and why does it matter? Learning Policy Institute. <https://learningpolicyinstitute.org/product/personalized-learning>.
- Decenzo, J. C. & Robbins, A. F. (2018). Employee welfare schemes and worker performance: A study of selected insurance firms in PortHarcourt. *Advance Research Journal of Multidisciplinary Discoveries*, 30(1), 01-09.
- Efe, R. & Efe, H.A. (2011). Using student group leaders to motivate students in cooperative learning methods in crowded classroom. *Education Research and Reviews*, 6(2), 187-196.
- Feng, W. C. (2010). An empirical study of the performance of University Teachers Based on Organizational commitment, job stress, mental Health and Achievement motivation. *Canadian Social Science*, 6(4), 127 – 140.
- Fuller and Clark (2014) suggested that the quality of instructional processes experienced
- Ibrahim, S. (2018). Relationships between education facilities teachers' qualifications, school location and academic performance of students in secondary schools in Delta State (*Unpublished Doctoral Dissertation*). Delta State University, Abraka.

- John, L. T. (2016). Role of instructional materials in academic performance in community secondary schools in Rombo District. *Inc. J Res Sci Teach*,44, 85–106.
- Louis, O. C., Leithwood, V., Wahlstrom, R. R., Michin, S. A., Gordon, A., Thomas, D. M. & Moore, U. (2010). Appraising Teacher Creativity and Collaborative Skills in Public Primary Schools in Mumias East SubCounty, Kenya. *International Journal of Education and Research*, 7(6), 207.
- Kalyani, L.D. (2016). An empirical investigation of the impact of organizational factors on the perceived job performance of shop floor employees of large scale garment Industries in Srilanka. *Subaragamuwa University Journal*, 6(1), 82 – 92.
- Lee, D. (2014). How to personalize learning in k-12 schools: Five essential design features. *Educational Technology*,54(3), 12-17.
- Louis, O. C., Leithwood, V., Wahlstrom, R. R., Michin, S. A., Gordon, A., Thomas, D. M. & Moore, U. (2010). Appraising Teacher Creativity and Collaborative Skills in Public Primary Schools in Mumias East SubCounty, Kenya. *International Journal of Education and Research*, 7(6), 207.
- Maguire, M., Ball, S. J. & Braun, A. (2013). What ever happened to...? Personalised learning' as a case of policy dissipation. *Journal of Education Policy*, 28(3), 322- 338.
- Mantei, E.J. (2010). Using internet class notes and Powerpoint in the physical geology lecture. *Journal of College Science Teaching*, 29(6), 301-305.
- McLaughlin, J. E. and Rhoney, D. H. (2015). Comparison of an interactive e-learning preparatory tool and a conventional downloadable handout used within a flipped neurologic pharmacotherapy lecture. *Currents in Pharmacy Teaching and Learning*,7(1), 12-19.
- Murphy, M. (2017). Personalized learning: What it really is and why it really matters. EdTech Magazine. <https://edtechmagazine.com/k12/article/2017/05/personalized-learning-what-it-really-and-why-it-really-matters>.
- Nwachukwu, O. F. (2011).Motivational practices and teachers performance in Jinja municipality secondary schools. *An UnpublishedMasters Thesis*. Bugema University.
- Nwanewezi, M.C. (2010). Problems in business education research in ICT era as perceived by business educators. *Business Education Journal*,7(2), 46-54.
- Okoli, B.E. (2010). A case for entrenchment of ICT literacy in the business education programme. *Journal of Vocational and Adult Education*,7(1), 82-87.
- Okoye, A. C. (2021). Extent innovative teaching strategies are required in business education programme in the 21st century in tertiary institutions in Anambra State. *Nigerian Journal of Business Education (NIGJBED)*,8(2), 333-339.

- Osuala (2012), business studies is a training system that will make him/her fit into the world of
- Özdemir, C. & Gören, A. D. (2017). *Supervision Today*. (2nd Edn). Prentice-Hall, Inc.
- Pane, J. F., Steiner, E. D., Baird, M. D. & Hamilton, L. S. (2015). Continued progress: Promising evidence on personalized learning. RAND Corporation. https://www.rand.org/pubs/research_reports/RR1365.html
- Patton, M. Q. (2017). *Sampling, qualitative (purposive)*. The Blackwell Encyclopedia of Sociology.
- Perkins, S. & Tagler, M. J. (2011). Jigsaw classroom. *Society for the Teaching of Psychology*, 2, 195–197.
- Prain, V., Cox, P., C. D., Dorman, J., Edwards, D., Farrelly, C. & Yager, Z. (2012). Personalised learning: *Lessons to be learnt*. *British Educational Research Journal*, 39(4), 654-676.
- Qiao, M. & Jin, X. (2010). Jigsaw strategy as a cooperative learning technique: focusing on the language learners. *Chinese Journal of Applied Linguistics*, 33(4), 113-125.
- Redding, S. (2014a). Personal competency: A framework for building students' capacity to learn. Center on Innovations in Learning. www.centeril.org
- Redding, S. (2014b). *Personal competencies in personalized learning*. Center on Innovations in Learning. www.centeril.org
- Summermatter, L. & Siegel, J. P. (2019). Defining performance in public management: variations over time and space. *Article in Central European Journal of Public Policy* 2(1) 50–73.
- Tamah, S.M. (2017). Jigsaw technique in reading class of young learners: Revealing students' interaction.
- Tomlinson, C. A. (2017). Let's celebrate personalization but not too fast: Asking crucial questions about implementing personalized learning will help you capture its power for your unique context. *Educational Leadership*, 74(6), 10-15.
- Umar, D. (2018). Principals' instructional supervision and teachers' performance of secondary schools in Danko Wasagu Local Government Area, Kebbi State, North-West Nigeria. *Global Journal of Engineering Education*, 11(3). 11-20
- Van Damme, D. (2016). Innovating education and educating for innovation. *Centre for Educational Research and Innovation (CERI)*, 43(4), 22-32.