Original Article

Teaching and Learning Innovations: Guest Teacher Innovation and Cooperative Learning for Enhanced Service Delivery in Public Secondary Schools in Rivers State, Nigeria

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ABSTRACT

Aim of the Study: This study investigated the teaching and learning innovations: guest teacher learning and cooperative learning for enhanced service delivery in public secondary schools in Rivers State, Nigeria. Two objectives, two research questions and two hypotheses guided the study.

Methodology: The descriptive design was adopted. The population of this study consisted of the 78,609 teachers and students in public senior secondary schools in Rivers State. The sample of this study was 792 teachers and students in public senior secondary schools in Rivers State, comprising 360 classroom teachers and 432 students. The multistage sampling technique was used to draw the sample. The instrument used to generate data was a self-structured questionnaire titled: Teaching and Learning Innovations for enhanced Service Delivery in Secondary Schools Questionnaire (TLISDSSQ). Cronbach Alpha was used to establish the reliability co-efficient of the instrument and a reliability index of 0.80 was obtained. The research questions were answered using mean and standard deviation, while the hypotheses were tested at 0.05 significant level using the t-test.

Findings: The study revealed that guest teacher learning and cooperative learning is the teaching and learning innovations that are utilised for enhanced service delivery in public secondary schools in Rivers State. The study also showed that people with expert knowledge in various fields of endeavours visit schools to provide real life industrial teaching experience to students.

Conclusion: The study recommended that government should equip public schools with facilities and have qualified instructors to ensure seamless implementation of teaching and learning innovations to improve service delivery, that School principals and administrators should make use of teachers to instruct students in order to deepen their understanding and improve their teaching skills in public secondary schools in the state.

Keyword: Teaching and Learning, Guest Teacher, Cooperative learning, Service Delivery, Public Secondary Schools.

24

Introduction

In the teaching and learning context, innovation is referred to as a planned, systematic, purposeful and persistent improvement in the ways of carrying out teaching and learning activities, with the aim of improving or establishing new and effective methods of achieving educational needs of students and goals of the society in education. Teaching innovations centre on improving education, organization and structures in areas of policy changes, curriculum reforms, school culture, introduction of new and enhanced teaching methods and instructional modalities and materials necessary for solving and overcoming old and new challenges facing education service delivery. Actually, teaching innovation is all about adapting, adopting and modifying pedagogical strategies, styles and methodologies through creativity, invention of teaching procedures and diversification of applied teaching skills in the classroom setting to accelerate students' comprehension and learning outcomes. Innovative teaching styles are student-centred and agree with experiential theorists' views that suppose students to be active thinkers, who are not only eager to participate actively in learning activities, but also tend to learn better in an environment that encourages critical thinking and reasoning, questioning and group discussions, simulation of real-life circumstances and other associative learning innovations which ultimate designs are to help students to understand complex situations, learn from such situations and construct their knowledge therefrom. Today, new teaching and learning innovations are re-defining the meaning of teaching and in no less the functions of the teachers who are increasingly becoming facilitators. Since innovative teaching and learning is so interesting, and makes instruction highly understandable for enabling students acquire crucial skills (Khurshid &Ansari, 2012). It is therefore necessary for school managers and teachers to work in synergy in identifying instructional challenges as they pertain to students socio-economic and socio-cultural needs, competencies, skills and moral development, with a view to innovating teaching methodologies that not only address the needs, but also empower them to think and generate solutions to problems of life as schooling is not just designed to enable students to become literate, but also to become creative in making use of their minds to generate self-employment, perform workplace tasks effectively and become useful citizens in diverse respects.

The term "guest teacher" refers to a non-regular teacher who visits schools to provide instruction to students based on their practical and experiential knowledge. Dalakas (2016) defines a guest teacher as an individual who, due to their expertise and achievements in a particular field, visits schools to interact with students and offer practical instruction on how to perform specific tasks. In a bid to broaden and enrich students' learning experiences for a deeper understanding. A guest teacher is a person with practical, real-world expertise in a particular subject who is invited to schools to engage with students and impart their expertise, so, thereby boosting students' practical understanding. Athavale *et al*. (2008) note that the guest teacher innovation helps students connect theoretical knowledge to practical applications. The scholars emphasize that the guest teacher innovation holds great potential for improving students' practical knowledge and skills.

Inviting guest teachers to the classroom brings a wealth of benefits. Students gain insights from professionals who have real-world experience and can provide practical examples and perspectives that go beyond what textbooks and regular teachers can offer. By interacting with guest teachers, students have the opportunity to bridge the gap between theory and practice, developing a deeper understanding of how the learnt concepts apply in real-life situations. The presence of guest teachers also exposes students to a diversification of teaching styles and approaches, broadening their horizons and fostering a more diverse learning environment. Overall, the inclusion of guest teachers in the educational process enhances students' learning experiences and equips them with the practical knowledge and skills needed for their future endeavors.

Guest teachers have various methods of instructing students, and one effective approach is engaging with students individually or in smaller groups. This allows for easier access and a closer connection between students and the guest teacher, enabling students to freely interact, ask questions, and receive immediate feedback. Karns (2015) observes that the idea of having a guest teacher often intrinsically motivates

students, leading them to find the concept exciting and enjoyable. Many students are eager to hear from a different teacher who can provide unique ideas and perspectives on a given subject. Therefore, students are typically willing to actively engage with guest teachers, taking the opportunity to ask questions that enhance their understanding.

This aligns with the viewpoint of Percy *et al*. (2019), who highlight that guest teachers often share information about their personal journey in life, including how they overcame obstacles to achieve success through determination and persistence. Such inspiring speeches can have a long lasting impact on students, serving as a catalyst for them to become more motivated and committed to their studies in a bid to achieve their own dreams and aspirations in the future.

The interaction between students and guest teachers not only fosters academic growth but also nurtures personal development. Students gain valuable insights from the experiences and wisdom of guest teachers, allowing them to broaden their horizons and envision possibilities beyond the classroom. The presence of guest teachers creates a dynamic learning environment that nurtures active participation, critical thinking, and the exploration of different perspectives. By facilitating direct engagement with students, guest teachers contribute to a holistic and enriching educational experience that goes beyond traditional classroom instruction. The inclusion of guest teachers in the educational process provides students with unique opportunities for individualized instruction, active interaction, and personal inspiration. Their presence serves as a catalyst for students' intrinsic motivation, fosters a love for learning, and empowers students to strive for their aspirations. The insights and experiences shared by guest teachers have a lasting impact on students, helping them develop not only academically but also personally, preparing them for success in their future endeavors.

Overview of Cooperative Learning

Cooperative learning is an innovative teaching and learning method that emphasizes collaboration and active participation among students (Johnson & Johnson, 2014). It involves organizing students into small groups to work together on academic tasks or projects. In contrast to traditional lecture-based approaches, cooperative learning places students at the center of their learning process, encouraging them to interact, share ideas, and collectively solve problems.

Cooperative learning is rooted in the belief that students can learn effectively from each other through social interaction and cooperation. By engaging in collaborative activities, students not only develop a deeper understanding of the subject matter but also enhance their social and interpersonal skills (Gillies, 2016).

The Principles of Cooperative Learning

Positive Interdependence

One of the fundamental principles of cooperative learning is positive interdependence (Johnson & Johnson, 2009). Positive interdependence refers to the belief that group members are mutually reliant on each other to achieve shared learning goals. In a cooperative learning setting, students understand that their individual success is tied to the success of the group as a whole.

To promote positive interdependence, teachers can design tasks that require group members to work together and rely on one another's contributions.

Individual Accountability

While cooperative learning emphasizes group work, it also recognizes the importance of individual accountability (Gillies, 2016). Individual accountability ensures that each student actively participates and contributes to the group's success. It prevents free-riding or the tendency of some students to rely on others to complete tasks.

To promote individual accountability, teachers can implement various strategies (Johnson & Johnson, 2014). These may include assigning specific roles to group members, providing individual assessments or contributions within group projects, or employing peer evaluations to hold students accountable for their effort and performance. These measures encourage each student to take ownership of their learning and contribute meaningfully to the group's outcomes.

Face-to-Face Interaction

Face-to-face interaction is a key aspect of cooperative learning. It involves active communication, dialogue, and exchange of ideas among group members. Through face-to-face interaction, students engage in discussions, clarify concepts, challenge assumptions, and construct meaning collaboratively.

Teachers can facilitate face-to-face interaction by structuring activities that require students to engage in meaningful dialogue. For instance, think-pair-share activities involve students discussing a question or problem in pairs before sharing their ideas with the larger group. This allows students to articulate their thoughts, receive feedback, and benefit from multiple perspectives.

Collaborative Skills Development

Cooperative learning provides an opportunity for students to develop and enhance their collaborative skills (Johnson & Johnson, 2009). Collaborative skills include effective communication, active listening, conflict resolution, and teamwork. These skills are crucial for success in both academic and professional settings.

Teachers can explicitly teach and model collaborative skills within cooperative learning environments (Gillies, 2016). They can provide guidance on effective communication strategies, teach students how to give and receive constructive feedback, and facilitate discussions on conflict resolution. By practicing and refining these skills, students become better equipped to work collaboratively and navigate diverse group dynamics.

Benefits of Cooperative Learning

Academic Benefits

Cooperative learning has been shown to offer various academic benefits for students. Research has consistently demonstrated that students who engage in cooperative learning outperform their peers who receive traditional instruction in terms of academic achievement (Johnson & Johnson, 2014). Here are some key academic benefits of cooperative learning:

a) Increased Mastery of Content: Through cooperative learning activities, students actively engage with the subject matter and have the opportunity to explain concepts to their peers. This process helps them deepen their understanding and achieve a higher level of mastery.

b) Improved Critical Thinking Skills: Cooperative learning encourages students to think critically and analyze information from different perspectives. Engaging in group discussions and problem-solving activities fosters higher-order thinking skills such as analysis, evaluation, and synthesis (Gillies, 2016).

c) Enhanced Retention and Transfer of Knowledge: Collaborative learning promotes the retrieval and application of knowledge. When students discuss and apply concepts in real-life contexts, they develop a deeper understanding that facilitates the retention and transfer of knowledge to new situations (Johnson & Johnson, 2009).

Social and Interpersonal Benefits

Cooperative learning also provides significant social and interpersonal benefits for students. It creates a supportive and inclusive learning environment that promotes positive relationships and the development of crucial social skills. Some key benefits include:

a) Improved Communication and Collaboration Skills: Engaging in cooperative learning activities requires effective communication, active listening, and collaboration. Students learn how to express their ideas, listen to others, and work together to achieve common goals.

b) Increased Empathy and Perspective-Taking: Collaborating with diverse group members encourages empathy and perspective-taking. Students gain exposure to different viewpoints, learn to respect diverse perspectives, and develop a broader understanding of others.

c) Enhanced Social Interaction and Engagement: Cooperative learning fosters positive social interaction among students. It creates opportunities for meaningful connections, friendships, and a sense of belonging within the classroom community (Gillies, 2016).

Cognitive and Metacognitive Benefits

Cooperative learning also offers cognitive and metacognitive benefits, enhancing students' overall learning experience. These benefits include:

a) Metacognitive Development: Engaging in cooperative learning activities requires students to reflect on their learning process, monitor their understanding, and regulate their learning strategies. This metacognitive awareness promotes self-directed learning and helps students become more autonomous learners (Johnson & Johnson, 2009).

b) Increased Motivation and Engagement: Cooperative learning provides a motivating learning environment where students feel actively involved and valued. The social support and positive interdependence inherent in cooperative learning boost students' motivation and engagement.

c) Development of Higher-Order Cognitive Skills: Cooperative learning activities often involve complex problem-solving tasks that require students to apply higher-order cognitive skills, such as analysis, synthesis, and evaluation. This promotes the development of critical thinking and problem-solving abilities (Gillies, 2016).

Statement of the Problem

Improving service delivery in education has continue to be one of major challenges facing education managers worldwide. There has been a growing disenchantment with the quality of public secondary schools with emphasis on paper qualification. The system is burdened by the inability to standardize activities. There is also an attendant low level of modern infrastructure base in the face of this present demand for quality education. For effective teaching and learning to be carried out appropriately, instructional materials are necessary and these materials need to be innovative in order to make teaching and learning effective, lasting and achieve its goals.

Aim and Objectives of the Study

The aim of this study was to investigate teaching and learning innovations: guest teacher learning and cooperative learning for enhanced service delivery in public secondary schools in Rivers State, Nigeria. Specifically, the objectives of this study were to;

1. ascertain how guest teacher learning is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria.

2. find out how cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Research Questions

The following research questions guided the study;

1. What are the ways guest teacher learning is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria?

2. What are the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria?

Hypotheses

1. There is no significant difference between the mean score of teachers and students on the ways guest teacher learning is utilised to enhance service delivery in public secondary schools in Rivers State. Nigeria.

2. There is no significant difference between the mean score of teachers and students on the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Methodology

The study adopted descriptive design with a population of 78,609 teachers and students in public senior secondary schools in Rivers State. The sample of this study was 792 teachers and students in public senior secondary schools in Rivers State, comprising 360 classroom teachers and 432 students. The multistage sampling technique was used to draw the sample. The instrument used to generate data was a self-structured questionnaire titled: Teaching and Learning Innovations for enhanced Service Delivery in Secondary Schools Questionnaire (TLISDSSQ) whose validity was ensured by experts. Cronbach Alpha was used to establish the reliability co-efficient of the instrument and a reliability index of 0.80 was obtained. The research questions were answered using mean and standard deviation, while the hypotheses were tested at 0.05 significant level using the t-test.

Result

Research Question 1: What are the ways guest teacher learning is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria?

Table 1: *Mean and standard deviation scores of teachers and students on the ways guest teacher innovation is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria.*

S/N	Questionnaire Items	Means of Respondents					
		Teachers (n= 356)			Students (n= 425)		
		$\overline{x}$	S. D.	**Remarks**	$\overline{x}$	S. D.	**Remarks**
1	Guest teachers are regularly invited to instruct students on given subjects.	2.05	0.80	Disagree	2.08	0.68	Agree
2	People with expert knowledge in various fields of endeavours visit schools to provide real life industrial teaching experience to students through the use of modelling, charts, and so on.	3.19	0.45	Agree	2.97	0.87	Agree
3	Guest teachers often submit their instructional plans for approval ahead of presentations.	2.94	0.87	Agree	3.03	0.83	Agree
4	Guest teachers usually avail students' opportunities to interact with them for enhanced understanding.	3.24	0.49	Agree	3.25	0.49	Agree

5	Instructions of guest teachers are incorporated into examination questions.	3.24	0.45	Agree	2.93	0.90	Agree
6	Guest teachers often give students learning materials to help them acquire more information on the topics taught.	3.21	0.45	Agree	3.20	0.52	Agree
	Aggregate Mean and SD	**2.98**	**0.58**		**2.91**	**0.71**	

Table 1 presents the mean and standard deviation scores of teachers and students on the ways guest teacher innovation is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria. The mean score for teacher in item 1 yielded low mean score of 2.05, which is lower than the criterion mean score of 2.50, and thus implies that teacher disagree that guest teachers are regularly invited to instruct students on given subjects. However, the responses of teacher in items 2, 3, 4, 5 and 6 yielded high mean scores of 3.19, 2.94, 3.24, 3.24 and 3.21 respectively, with the effect that the teachers agree that people with expert knowledge in various fields of endeavours visit schools to share real life industrial experience with students, and that guest teachers often submit their instructional plans for approval ahead of presentations, and usually avail students' opportunities for interaction for enhanced understanding, with the result that instructions of guest teachers are incorporated into examination questions and guest teachers often gave students learning materials to help them acquire more information on the topics taught.

Similarly, the mean score students for item 1 yielded low mean score of 2.08, and therefore implies that students disagree that guest teachers are regularly invited to instruct them on given subjects. However, the statements in items 2, 3, 4, 5 and 6 were all respectively agree by the respondents, having yielded high mean scores of 2.97, 3.03, 3.25, 2.93 and 3.20 respectively.

The said mean scores are high and imply that students agree that people with expert knowledge in various fields of endeavours visit schools to provide real life industrial experience in form of modelling to students, and that guest teachers often submit their instructional plans for approval ahead of presentations, and usually avail students' opportunities to interact with them for enhanced understanding, with the result that instructions of guest teachers are incorporated into examination questions and guest teachers often gave students learning materials to help them acquire more information on the topics taught. The aggregate mean scores of 2.98 and 2.91 were obtained for the respective two categories of the respondents.

Research Question 2: What are the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria?

Table 2: *Mean and standard deviation scores of teachers and students on the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.*

S/N Questionnaire Items		Means of Respondents					
		Teachers (n= 356)			Students (n= 425)		
		$\overline{x}$	S. D.	**Remarks**	$\overline{x}$	S. D.	**Remarks**
7	Teachers occupy students with group discussion in order to learn from one another.	2.84	0.69	Agree	3.13	0.79	Agree
8	Teachers allocate academic projects/ tasks to students in small	2.73	0.92	Agree	2.96	0.76	Agree

	units.						
9	Sometimes teachers group students to challenge them with a given instructional task.	3.42	0.83	Agree	3.61	0.71	Agree
10	Teachers split instructional topics into parts for each group of students to study in unity.	3.21	0.89	Agree	3.49	0.79	Agree
11	Teachers allow students to study and learn together through productive discussion.	3.13	0.95	Agree	3.41	0.87	Agree
	Aggregate Mean and SD	**3.07**	**0.85**		**3.32**	**0.78**	

Table 2 presents the mean and standard deviation scores of teachers and students on ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria. The mean score for teachers' responses in items 7, 8, 9, 10 and 11 yielded mean scores of 2.84, 2.73, 3.42, 3.21 and 3.13 respectively, while the responses of students for the same items showed 3.13, 3.06, 3.61, 3.49 and 3.41. Both categories of the responses agree that teachers occupy students with group discussion in order from each other, teachers allocate academic projects/tasks to students in small units, and that sometimes teachers grouped students to challenge them with a given instructional task, split instructional topics into parts for each group of students to study unity, and also allowed students to study and learn together through productive discussion. The aggregate mean scores of 3.07 and 3.34 were obtained for teachers and students respectively, and this implies that both categories of the respondents agree that the itemized statements are the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Hypothesis 1: There is no significant difference between the mean score of teachers and students on the ways guest teacher innovation is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Table 3: *t-test analysis of the difference between teachers and students on the ways guest teacher innovation is utilized to enhance service delivery in public secondary schools in Rivers State, Nigeria.*

Variables	N	$\overline{\times}$	SD	Df	T	P-value	Sig. Level	Remarks
Teachers	356	2.98	0.58	779	1.877	0.061	0.05	Not Significant (H_{O_6} accepted)
Students	425	2.91	0.71					

In table 3, it showed that at 779 degrees of freedom and 0.05 significance level, the mean scores comparison yielded a t-value of 1.877, which is significant at p-value of 0.061. Furthermore, since the p-value of 0.061 is higher than 0.05 significance level, no significant difference was found between the mean scores of teachers and students. Consequently, the researcher is constrained to accept the null hypothesis state, and thus conclude that there is no significant difference between the mean scores of teachers and students on the ways guest teacher innovation is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Hypothesis 2: There is no significant difference between the mean scores of teachers and students on the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Table 4: *t-test analysis of the difference between teachers and students on the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.*

Variables	N	$\overline{\times}$	SD	Df	T	P-value	Sig. Level	Remarks
Teachers	356	3.07	0.85	779	6.66	0.000	0.05	Significant
Students	425	3.32	0.78					(H_{O_3} rejected)

In table 4, it showed that at 779 degrees of freedom and 0.05 significance level, the mean scores comparison yielded a t-value of 6.66, which is significant at p-value of 0.000. In addition, since the p-value of 0.000 is less than 0.05 significance level, a significant difference is therefore established between the mean scores of teachers and students. Hence, the researcher is constrained to reject the null hypothesis stated, and thus conclude that there is a significant difference between the mean scores of teachers and students on the ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

Discussion of Findings

Ways guest teacher innovation is utilized to enhance service delivery in public secondary schools in Rivers State, Nigeria.

The finding here revealed that the ways guest teacher innovation is utilized to enhance service delivery in public secondary schools include that; people with expert knowledge in various fields of endeavours visited secondary schools to provide real life industrial teaching experience to students. Furthermore, guest teachers often submitted their instructional plans for approval ahead of presentations, availed students' opportunities to interact with them for enhanced understanding, and often gave students learning materials to help them acquire more information on the topics taught. Instructions of guest teachers were also incorporated into examination questions. This finding also showed that no significant difference was found between the mean scores of teachers and students on the ways guest teacher innovation is utilised to enhance service delivery in public secondary schools in Rivers State, Nigeria.

The reason behind this finding may be related to the understanding that people with practical knowledge and experiences in a given specialty are more likely to offer students accurate and pragmatic knowledge on such area. This argument is in line with Athavale *et al*. (2008), who remarked that guest teacher's innovation helps students to acquire some level of practical knowledge, which also serve as an affordance for students to relate theory to practice. The finding is in tandem with Hemphill and Hemphill (2017), who reported guest teaching enhanced students' interest level, critical thinking skills and extended academic conversation among students, with the result that students participation in academic conversation increased significantly, as students were somewhat leading the discussions while their guest teacher was attending to their questions through discursive expansion of concepts and clarification to enhance students' conceptual understanding.

The finding here is in accord with Percy *et al*. (2019), who reported that 77% to 91% of students who were part of their study indicated that talks which guest teachers provided to the students helped them meaningfully in vast areas including motivation, attitude, and profession and belief system. The Percy *et al*, further observed that 88% of young people who took part in the study indicated that guest teachers' teachings helped them to make sense of the fact that they have to deal with and overcome obstacles to achieve success, whereas 51% of them were of the opinion that guest teacher innovation has helped them significantly in managing their lives, with the result that students who took part in guest teacher teachings acquired knowledge that dispelled the belief that their background is the obstacles to attaining their goals. Kamoun and Selim (2017) corroborates the finding of this investigation, having reported that guest teachers' innovation helped to alleviate poor knowledge of students on operative knowledge and functioning of information technology in real world context, adding that guest teaching enabled students to acquire practical and valuable knowledge relevant to information technology industry. This finding

suggest that guest teaching is a useful way of helping students to acquire real-world knowledge on a given specialty, and by this innovation, students are helped to relate theory to practice to deepen their understanding on the area.

Ways cooperative learning is made used of to enhance service delivery in public secondary schools in Rivers State, Nigeria.

This study revealed that the ways cooperative learning is made used of to enhance service delivery in public secondary schools include: teachers occupy students with group discussion in order to learn from each other, teachers allocate academic projects to students in small units, and sometimes teachers grouped students to challenge them with a given instructional task. Other ways cooperative learning is made used of to enhance service delivery include that, teachers split instructional topics into parts for each group of students to study unity, and also allowed students to study and learn together through productive discussion. Furthermore, this finding revealed that a significant difference exist between the mean scores of teachers and students on the ways cooperative learning is applied to enhance service delivery in public secondary schools in Rivers State, Nigeria. The reason behind these findings may be explained by the understanding that cooperative learning is really effective on the part of teachers in secondary schools in Rivers State who now use it to instruct learners. This finding is somewhat consistent with Silva *et al.* (2022), who reported that no significant difference was found between grades of students taught with cooperative learning and knowledge mapping methods, nevertheless students who were exposed to cooperative learning increased in level of critical thinking ability than those instructed with conventional lecture-based teaching method.

Summary of Findings

1. The ways guest teacher innovation is utilized to enhance service delivery in public secondary schools included that people with expert knowledge in various fields of study visited secondary schools to provide real life teaching experience to students through the use of modelling, charts and so on. Also, the guest teachers often submitted their instructional plans for approval ahead of presentations, availed students' opportunities to interact with them for enhanced understanding, and often gave students learning materials to help them acquire more information on the topics taught. Instructions/inputs of guest teachers were also incorporated into examination questions.

2. This study revealed that the ways cooperative learning is made used of to enhance service delivery in public secondary schools include: teachers occupy students with group discussion in order to learn from each other, teachers allocate academic projects to students in small units, and sometimes teachers grouped students to challenge them with a given instructional task. Other ways cooperative learning is made used of to enhance service delivery include that, teachers split instructional topics into parts for each group of students to study unity, and also allowed students to study and learn together through productive discussion

Conclusion

Based on the findings, this study concludes that the teaching and learning innovations used by teachers to instruct students in secondary schools in Rivers State include flipped classroom and simulative learning.

Recommendations

Based on the findings of this study, the following recommendations were made;

1. Government should adequately equip all public schools with facilities and qualified instructors to ensure seamless implementation of teaching and learning innovations to improve service delivery in secondary schools in the state.

2. Regular training, workshop and seminars for teachers on teaching and learning innovations should be integrated into the curriculum.

3. School principals and administrators should encourage teachers to use cooperative learning method to teach students in order to deepen their understanding and improve their skills in education.

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References

Athavale, M., Davis, R., and Myring, M. (2008) The integrated business curriculum: An examination of perceptions and practices. *Journal of Education for Business*, *83*, 295-301.

Chinyere, U. I. (2024). Assessment of ICT Literacy Level of Primary Education Lecturers for Effective Teaching and Learning. *Human Nature Journal of Social Sciences*, *5*(2), 14-21.

Dalakas, V. (2016). Turning guest speakers' visits into active learning opportunities. *Atlantic Marketing Journal,* 5(2), 93-100.

Gillies, R. M. (2016). Cooperative learning: Review of research and practice. *Australian Journal of Teacher Education, 41*(3), 39-54.

Hemphill, L. S. and Hemphill, H. H. (2017). Evaluating the impact of guest speaker postings in online discussions. *British Journal of Educational Technology, 38*(7), 287–293.

Johnson, D. W., & Johnson, R. T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher, 38*(5), 365-379.

Johnson, D. W., & Johnson, R. T. (2014). Cooperative learning in 21st-century classrooms. *Annual Review of Psychology, 65*, 409-427.

Kamoun, F. and Selim, S. (2017). A Framework towards Assessing the Merits of Inviting IT Professionals to the Classroom. *Journal of Information Technology Education, 6*(6), 81-103.

Karns, G.L. (2015) An update of marketing student perceptions of learning activities: Structure, preferences, and effectiveness. *Journal of Marketing Education*, *27*, 163-171.

Khurshid, F. and Ansari, U. (2012). Effects of innovative teaching strategies on students' performance. *Global Journal of Human Social Science Linguistics* and *Education, 12*(10), 46-53.

Oguzie, A. E. ., Obi, J. S. C. ., Nnadi, G. C. ., Nwobi, L. N. ., & Okpala, M. C. . (2023). Self-Esteem as Correlate of Secondary School Students' Social Adjustment in Imo State, Nigeria. *THE PROGRESS: A Journal of Multidisciplinary Studies*, *4*(1), 21-29.

Percy, C., Rehill, J., Kashakadel, E. and Chambers, N. (2019). *Insights and inspiration: Exploring the impact of guest speakers in schools.* Education and Employers.

Silva, H., Lopes, J., Dominguez, C. and Morais, E. (2022). Lecture, cooperative learning and concept mapping: any differences on critical and creative thinking development? *International Journal of Instruction, 15*(1) 765-780.

Yousaf, M., Quershi, A. A. ., & Shaheen, A. K. . (2024). Effect of Wellbeing on Turnover Intentions of University Teachers. *Human Nature Journal of Social Sciences*, *5*(2), 248-260.

Zainab, S. ., Mansoor, M., & Zulfiqar, A. . (2023). Digital Classrooms and Assessment Challenges in Higher Education. *Human Nature Journal of Social Sciences*, *4*(4), 160-169.