Team Teaching and Effective Instructional Delivery among Teaching Staff of Faculties of Education in Rivers State Owned Universities

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Abstract

This study investigated Team teaching and effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned universities. Three research questions and three null hypotheses were formulated to guide the study. The population of the study is 2195 teaching staff of Faculties of Rivers State University and Ignatius Ajuru University of Education. The study adopted a simple prediction research design. The sample size was 400 and Taro Yamane minimum sample formula was used in determining the sample. The instruments used were Team Teaching Questionnaire (TTQ) with 15 items and Effective Instructional Delivery among Teaching Staff Questionnaire (EIDTSQ) with 10 items. The instruments were subjected to face and content validation by 3 experts while the overall reliability coefficient of the instruments stood at 0.85 and 0.87 respectively. The reliability coefficient was determined using Cronbach alpha reliability method. Simple Linear Regression Statistics at .05 alpha level of significance. The result showed that one-teach-one-assist, parallel teaching and differentiated teaching predicted effective instructional delivery significantly. Consequently, it was recommended among others that, one-teach-one-assist should be use when one teacher has more expertise in the topic and when individual student needs more assistance in both universities, both institutions should address the question of operational support whenever it is considering parallel teaching because teachers are sometimes emotionally drained teaching diverse students and both institutions should support teachers’ utilization of differentiated teaching by motivating them in order to maximize teacher leadership.

Keywords: Team Teaching, Effective instructional delivery, Teaching staff, Universities.


Introduction

Teaching is an engagement with learners to enable their understanding and application of knowledge, concepts and processes. It is arrangement and manipulation of a situation in which there are gaps or obstructions which an individual will seek to overcome and from which he learns in the course of doing so. It is fundamentally about creating the pedagogical, social, and ethical conditions under which students agree to take charge of their own learning, individually and collectively. Onwuegbu in Elenwo and Dike (2023) averred that, the requirement for effective teaching depend on collective knowledge and richness of diverse perspectives, hence calls for the need for team teaching amongst the teaching staff of institutions of learning.

Team teaching is a process where two or more general content educators representing different disciplines share teaching responsibilities to deliver an integrated curriculum within a single classroom. It a model that involves two or more instructors collaborating in the planning and delivery of a subject. According to Anderson and Speck (2014), team teaching is the division of labour between educators to plan, organize, instruct and make assessments on the same group of students, generally in a common
classroom, and often with a strong focus on this teaching as a team complementing one another’s particular skills or other strengths. It serves as one tool in an arsenal of instructional methods available to educators at all levels which empowers teachers and produces collegiality in order to improve the practice of teaching through collaboration and integration of curriculum (Murata, 2017). Accordingly, Martin-Alcazar (2019) maintained that teachers find collegiality when working teams, and the collegiality brings about professional, in-depth conversations. It allows teachers and students to develop stronger bonds, and teachers on teams come to know their students on a deeper level as students are a concern beyond the traditional class period. The greater number of teachers in a single classroom makes team teachers better able to answer student questions. Nungsari (2017) emphasized that team teaching can take the form of but not limited to one-teach-one-assist method of teaching, parallel teaching and differentiated teaching for effective instructional delivery.

One-teach-one-assist involves a teacher taking primary responsibility of delivering whole class instruction while another teacher assists students with their work and maintaining expected behaviours, or provides, other support as needed. To Wassel (2018) one teacher has the instructional lead and the teacher assisting is a voice for the students when they do not understand or are experiencing difficulties. The one-teach-one-assist approach is used sparingly since it gives one teacher more power in the classroom than the other. (Murphy, 2014). Willis (2015) in a study found out that one-teach-one-assist has a lot of positive points in comparison to single-teacher teaching as it creates ambience for a more conducive learning environment.

Parallel teaching is a team-teaching method where two teachers (for example, general education teacher, special education teacher, student education teacher, etcetera) use their individual strengths and teaching styles to jointly plan a lesson, then divide the class in half and each teach the same lesson to the two groups at the same time (Jones, Jones & Vermette, 2016). The class can be split randomly, according to learning profiles (for example, reading levels), behaviour tendencies (for example, separating students who tend to argue), or to strategically combine or distribute students with various strengths, needs, or characteristics (for example, talkative students). According to Young (2016) parallel teaching occurs when co-teachers instruct, monitor, or facilitate the work of different groups of students at the same time in the classroom. The two teachers address the same instructional material and present material using the same strategy. The greatest benefit to this approach is reduction of the student to teacher ratio. In a comprehensive study of inclusion Okoro (2015) found that the lower student–teacher ratio that resulted from the presence of parallel teaching in normal-sized classrooms led to strong academic progress and enhanced student self-confidence. In a study, Murawska (2017) found that parallel teaching was a moderately effective procedure for instructional delivery which influences student outcomes. Also, David (2013) found that facilitating parallel teaching can lead to the development of effective learning strategies.

Differentiated teaching is an approach to teaching which meets the diverse academic needs of students by considering learner readiness, interest and learning style. The approach is grounded in the socio-cultural, multiple intelligence and learning style theories (Campbell, 2018). Differentiated teaching assists teachers in planning strategically in order to meet the diverse needs of learners in today’s classrooms to achieve specific standards. Chapman (2015) asserted that differentiated teaching, provide students with different approaches to learning the same information. The learning outcome is the same for all students, however, the instructional methodology is different. Study was conducted to determine the effects of differentiated curriculum and grouping practice on student achievement, George (2015) found that differentiated teaching was an essential approach to teaching that assisted teachers in meeting varying student needs. In particular, teams provide meaning, union and importance to the people who are involved with them. In a separate study, Elenwo and Dike (2023) found high and positive relationship between selected co-teaching models and effective instructional delivery among educational management teaching staff in public universities in Rivers State. Currently, there has been a conscious movement towards teams as a strategic vehicle for effective instructional delivery.

Effective instructional delivery refers to the effective interaction among the student, the teacher, the content, the knowledge, skills, dispositions students will need for learning and collaborating with others.
in a diverse society and rapidly changing world. Okoye and Eze (2013) opined that effective instructional delivery is the unique method adopted by teacher for imparting knowledge and skills to the learner. The process of effective instructional delivery involves applying a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement.

Statement of the Problem

Growing numbers of non-traditional students are currently being funneled into schools causing teachers to be charged with levels of teaching diversity for effective instructional delivery. The increasing number of diverse student populations in schools also highlights the need for effective service delivery models to accommodate these students. In response to the increasingly complex society and a rapidly changing technology-based economy, schools are being asked to educate the most diverse student body in our history to higher academic standards than ever before (Oranu, 2013). As evidenced across the literature, the “one size-fits-all” approach to teaching no longer meets the diverse needs of today’s learners. There is a problem resulting from orthodox method of teaching – one size fits all. Could the introduction of team teaching be the solution to the problems of effective instructional delivery?

Purpose of the Study

The main purpose of the study was to investigate team teaching and effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned universities. Specifically, the objectives of the study were to;

1. ascertain the extent to which one-teach-one-assist method of teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
2. determine the extent to which parallel teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
3. assess the extent to which differentiated teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

Research Questions

For the purpose of this study, the following research questions are posed;

1. To what extent does one-teach–one-assist method of teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?
2. To what extent does parallel teaching predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?
3. To what extent does differentiated teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?

Hypotheses

The following null hypotheses were formulated for the study

1. One-teach-one-assist method of teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
2. Parallel teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
3. Differentiated teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
Methodology

The research adopted simple prediction research design. The design was considered suitable because it investigated how one-teach-one assist method of teaching, parallel teaching and differentiated teaching when treated singly predicted effective instructional delivery among teaching staff. The study was carried out in Rivers State University and Ignatius Ajuru University of Education all in Rivers State. The population of the study comprised of all the 2195 teaching staff of the two Rivers State owned Universities namely; Rivers State University and Ignatius Ajuru University of Education. Source: Registry Departments of the Universities (2023). The sample size for the study is 400 teaching staff. The sample size was determined using Taro Yamen’s minimum sample formula. Disproportionate and simple random technique was used to select 400 teaching staff from the two universities that is; 230 from Rivers State University and 170 from Ignatius Ajuru University of Education.

The instruments used for data collection were Team Teaching Questionnaire (TTQ) and Effective Instructional Delivery among Teaching Staff Questionnaire (EIDTSQ). Each of the instruments had two sections; A and B. Section A of the two instruments, contained items on the demographic variables of the respondents, section B of TTQ had 15 items related to one-teach-one assist method of teaching, parallel teaching and differentiated teaching. Each of the team-teaching variables had 5 items. Lastly, section B of EIDTSQ contained 10 items on effective instructional delivery among teaching staff. The instruments were scored using a 4-point rating scale of Very High Extent (VHE) = 4 points, High Extent (HE) = 3 points, Low Extent (LE) = 2 points and Very Low Extent (VLE) = 1 point. The instruments were subjected to face and content validity by two experts from the Department of Measurement and Evaluation and one expert from Department of Educational Management all in the Faculty of Education in Rivers State University. The purpose of the study and the research questions were made available to them at the time of validation. The three experts made corrections which were incorporated in the final copy of the instruments used in collection of data for the study. To determine the reliability of the two instruments, a trial testing was carried out by the researcher by administering 25 copies of the instruments to teaching staff from Faculty of Education of University of Port Harcourt which is outside the area of the study. The data generated was used to compute the reliability coefficient using Cronbach Alpha reliability method. The items yielded a reliability coefficient of 0.85 for Team Teaching and 0.87 for Effective Instructional Delivery while the clusters coefficients are 0.85, 0.82 and 0.87 respectively for one-teach-one-assist method of teaching, parallel teaching and differentiated teaching. These are indications of a reasonable reliability coefficient.

The instruments were administered on the respondents directly by the researchers and their two trained research assistants. The research assistants were briefed of the purpose of the study and the modalities to employ in assisting the respondents to fill the instruments correctly. The administered instruments were retrieved after one week. There was 100 percent return rate of the administered instruments. Data collected were analyzed using Simple Linear Regression Statistics in SPSS (Statistical Package for Social Sciences) software version 25. Decision rule for the interpretation of the R-value was between 0 and 1. Kpee (2013) gave the following scale to determine the relationship and direction of the regression coefficient values; 0.00-19 = Very weak relationship (prediction), 20-39 = Weak relationship (prediction), 40-59 = Moderate relationship (prediction), 80-1.0 = Very strong relationship (prediction), 0 = No relationship (prediction) and 1.0 Perfect positive relationship (prediction).

Results

Research Questions 1

To what extent does one teach-one assist method of teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?
Table 1. Simple Linear Regression on the Extent One Teach-One Assist Method of Teaching Predicts Effective Instructional Delivery (n=400)

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R²</th>
<th>Extent of Prediction</th>
<th>Adjusted R²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Teach-One Assist Method of Teaching</td>
<td>0.528</td>
<td>0.279</td>
<td>27.9%</td>
<td>0.279</td>
<td>Moderate Prediction</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Field Result 2023

In Table 1, the results reveal that R-value is 0.528 and R² is 0.279. The R-value of 0.528 indicates positive and moderate extent of prediction, while R² value of 0.279 which is the coefficient of determination show the extent of prediction for one teach-one assist method of teaching and effective instructional delivery among teaching staff. In addition, 27.9% variance in effective instructional delivery among teaching staff is predicted by one teach-one assist method of teaching. This means that one teach-one assist method of teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

Research Question 2

To what extent does parallel teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?

Table 2. Simple Linear Regression on the Extent Parallel Teaching Predicts Effective Instructional Delivery (n=400)

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R²</th>
<th>Extent of Prediction</th>
<th>Adjusted R²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Teaching</td>
<td>0.480</td>
<td>0.201</td>
<td>20.1%</td>
<td>0.201</td>
<td>Moderate Prediction</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Field Result 2023

Table 2 revealed that the regression correlation (R) was 0.480 while R² and adjusted R² were 0.201 and 0.201 respectively. The coefficient of determination was calculated to be 20.1%. This showed that parallel teaching predicted 20.1% effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities. This means there was moderate extent of prediction of parallel teaching on effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

Research Question 3

To what extent does differentiated teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities?

Table 3. Simple Linear Regression on the Extent Differentiated Teaching Predicts Effective Instructional Delivery (n=400)

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R²</th>
<th>Extent of Prediction</th>
<th>Adjusted R²</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiated Teaching</td>
<td>0.563</td>
<td>0.292</td>
<td>29.2%</td>
<td>0.292</td>
<td>Moderate Prediction</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Field Result 2023

In Table 3, the results reveal that R-value is 0.563 and R² is 0.292. The R-value of 0.563 indicates positive and moderate extent of prediction, while R² value of 0.292 which is the coefficient of determination show
the extent of prediction differentiated teaching and effective instructional delivery among teaching staff. In addition, 29.2% variance in effective instructional delivery among teaching staff is predicted differentiated teaching. This means that differentiated teaching predicts effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

**Hypothesis 1**

One-teach-one-assist method of teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

**Table 4. Result of Regressing Effective Instructional Delivery to One Teach-One Assist Method of Teaching (n=400)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sources of Variation</th>
<th>Sum of Square</th>
<th>Df</th>
<th>MS</th>
<th>F-cal</th>
<th>F-crit</th>
<th>Decision at p&lt;.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-teach-One-assist</td>
<td>Regression</td>
<td>55324.198</td>
<td>1</td>
<td>55324.198</td>
<td>103.55</td>
<td>3.86</td>
<td>Rejected Null Hypothesis</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td>Residual</td>
<td>212651.143</td>
<td>398</td>
<td>534.299</td>
<td>56.17</td>
<td>3.86</td>
<td>Rejected Null Hypothesis</td>
</tr>
</tbody>
</table>

Table 4 revealed the regression analysis showed that one-teach-one-assist method of teaching significantly predicted scores of effective instructional delivery as degrees of freedom were 1 and 398, F-value of 103.55 and F-critical value of 3.86. The F-value is greater than F-critical value of 3.86 at 0.05 level of significance therefore, the null hypothesis is rejected. By implication, one-teach-one-assist method of teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

**Hypothesis 2**

Parallel teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

**Table 5. Result of Regressing Effective Instructional Delivery to Parallel Teaching (n=400)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sources of Variation</th>
<th>Sum of Square</th>
<th>Df</th>
<th>MS</th>
<th>F-cal</th>
<th>F-crit</th>
<th>Decision at p&lt;.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Teaching</td>
<td>Regression</td>
<td>41048.900</td>
<td>1</td>
<td>41048.900</td>
<td>56.17</td>
<td>3.86</td>
<td>Rejected Null Hypothesis</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td>Residual</td>
<td>290880.920</td>
<td>398</td>
<td>730.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Result in Table 5 shows that the calculated F-value of 56.17 is greater than the critical F-value of 3.86 at 0.05 level of significance with 1 and 398 degrees of freedom. With this, the null hypothesis that parallel teaching does not significantly predict effective instructional delivery was rejected. This means that Parallel teaching does significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

**Hypothesis 3**

Differentiated teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.
Table 6. Result of Regressing Effective Instructional Delivery to Differentiated Teaching (n=400)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sources of Variation</th>
<th>Sum of Square</th>
<th>Df</th>
<th>MS</th>
<th>F-cal</th>
<th>F-crit</th>
<th>Decision at p&lt;.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiated Teaching</td>
<td>Regression</td>
<td>88069.824</td>
<td>1</td>
<td>88069.824</td>
<td>135.17</td>
<td>3.86</td>
<td>Rejected Null Hypothesis</td>
</tr>
<tr>
<td>Effective Instructional Delivery</td>
<td>Residual</td>
<td>259322.631</td>
<td>398</td>
<td>651.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 revealed the regression analysis showed that differentiated significantly predicted scores of effective instructional delivery as degrees of freedom were 1 and 398, F-value of 135.17 and F-critical value of 3.86. The F-value is greater than F-critical value of 3.86 at 0.05 level of significance. Therefore, the null hypothesis which states that differentiated teaching does not significantly predict effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities is rejected. This implies that, differentiated teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

Discussion of Findings

The finding of research question 1 revealed that one-teach-one-assist method of teaching predicted 27.9% of effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities. One-teach-one-assist method of teaching allows one teacher to lead the class while the other provides individualized attention to students who need further assistance. This finding agreed with the finding of Willis (2015) that one-teach-one-assist has a lot of positive points in comparison to single-teacher teaching as it creates ambience for a more conducive learning environment. Thus, one-teach-one-assist teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

The finding of research 2 revealed that parallel teaching predicted 20.1% of effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities. Parallel teaching means teaching with some students physically attending class and others joining remotely via video conferencing. This finding agreed with Murawski (2017) who found that parallel teaching was a moderately effective procedure for instructional delivery which influences student outcomes. Also, in agreement with the finding of David (2013) that facilitating parallel teaching can lead to the development of effective learning strategies. Therefore, parallel teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities.

Finding of research question 3 revealed that differentiated teaching predicted 29.2% of effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities. Differentiated teaching is a pedagogical-didactical approach that provides teachers with a starting point for meeting students' diverse learning needs. This finding agrees with George (2015) that differentiated teaching was an essential approach to teaching that assisted teachers in meeting varying student needs. Consequently, differentiated teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education in Rivers State owned Universities. The finding also corroborates Elenwo and Dike (2023) that there is high and positive relationship between selected co-teaching models and effective instructional delivery among educational management teaching staff in public universities in Rivers State.
Conclusion

From the above findings the researchers conclude that one-teach-one-assist method of teaching, parallel teaching and differentiated teaching significantly predicted effective instructional delivery among teaching staff of Faculties of Education Rivers State owned universities.

Recommendations

Based on the findings and conclusion reached, it was generally recommended that:

1. One-teach-one-assist should be use when one teacher has more expertise in the topic and when individual student needs more assistance in both universities.

2. Both institutions should address the question of operational support whenever it is considering parallel teaching because teachers are sometimes emotionally drained teaching diverse students.

3. Both institutions should support teachers’ utilization of differentiated teaching by motivating them in order to maximize teacher leadership.

References


