



## Remedial Programme, Cultural Support and the Attainment of Sustainable Development Goal Four in Public Senior Secondary Schools in Rivers State

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### ABSTRACT

This study examined the remedial programme, cultural support and the attainment of sustainable development goal four in public senior secondary schools in Rivers State, focusing specifically on the remedial programme and cultural support. Two objectives, research questions and hypotheses guided the study. The study adopted a descriptive survey design. The population comprised 5,676 teachers in the 367 public senior secondary schools in Rivers State. Proportionate stratified random sampling was used to draw a sample of 374 teachers using the Taro Yamane formula, out of which 360 copies of the questionnaire (197 from male teachers and 163 from female teachers) were properly completed and retrieved. The instrument for data collection was a self-structured questionnaire titled Influence of Compensatory Approaches on Sustainable Development Goal Four Questionnaire (ICASDGFFQ), validated by experts in educational management and measurement and evaluation. Reliability was established using Cronbach's Alpha, yielding coefficients of 0.76 for the remedial programme and 0.78 for cultural support. Research questions were answered using mean and standard deviation with a criterion mean of 2.50, while the null hypotheses were tested using z-test statistics at the 0.05 level of significance. Findings revealed that remedial programmes and cultural support both influence SDG 4 to a high extent in public senior secondary schools in Rivers State, with aggregate mean scores of 3.21 and 2.81 for remedial programmes and 3.02 and 2.77 for cultural support, among male and female teachers, respectively. There was a significant difference between the mean ratings of male and female teachers on the extent to which both the remedial programme and cultural support influence SDG 4. The study recommended, among others, that government should expand remedial education provision for learners who have fallen behind academically and that school management should fully institutionalise culturally responsive practices to strengthen the attainment of SDG 4 in Rivers State.

## **INTRODUCTION**

Education remains the surest instrument through which societies achieve sustainable development, prepare productive citizens, and break intergenerational cycles of poverty. The centrality of education to human progress is what informed its adoption as a standalone goal, Sustainable Development Goal Four (SDG 4), among the seventeen Sustainable Development Goals ratified by member states of the United Nations in 2015. SDG 4 seeks to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all by the year 2030.

In Nigeria, and particularly in Rivers State, the attainment of SDG 4 in public senior secondary schools continues to be threatened by learning gaps that accumulate over the course of a child's schooling, and by the neglect of the cultural context within which learning takes place. Many students fall behind their peers academically as a result of socioeconomic disadvantage, resource inaccessibility, or interrupted schooling, while others disengage from education when the school environment fails to recognize or value their cultural identity. It is against this backdrop that compensatory approaches, deliberate strategies for levelling the playing field for disadvantaged learners, have been advanced as a pathway to SDG 4. This paper concentrates on two of these compensatory approaches, namely remedial programme and cultural support, and examines the extent to which each influences the attainment of SDG 4 in public senior secondary schools in Rivers State.

Remedial programme is concerned with the provision of extra classes, tutoring, and accelerated learning opportunities for struggling students and out-of-school children, enabling them to catch up academically and reintegrate into formal education. Remedial education, which consists of targeted interventions for students struggling academically, addresses disparities in students' progress that arise from socioeconomic status, resource accessibility, and other classroom factors, using approaches such as individualized instruction, small-group learning, multi-sensory techniques, and formative assessment (Smith & Johnson, 2022). Vintere (2018) similarly notes that students' progress at different rates is influenced by a range of factors, and that tailored interventions targeting fundamental skills and competencies can significantly narrow these gaps. By supporting learners who fall behind academically, remedial programmes contribute directly to educational quality, equity, inclusion, retention, and the successful completion of secondary education, all central concerns of SDG 4.

Cultural support, on the other hand, refers to the values, beliefs, traditions, attitudes, and practices within families, communities, and schools that encourage and sustain educational participation and achievement (Ukala & Adieme, 2024). It includes practices such as teaching in the mother tongue in early grades, integrating indigenous knowledge and heritage into the curriculum, and involving parents, traditional leaders, and community members in the educational process. Patta and Agabi (2023) argue that cultural support plays a significant role in the pursuit of SDG 4, since schools that embrace cultural diversity and accommodate the backgrounds of their learners are more likely to provide equitable educational opportunities and sustain the engagement of

students from diverse backgrounds, including those with disabilities and those from minority groups.

Despite the recognized importance of these two compensatory approaches, there is limited empirical evidence, particularly in Rivers State, on the extent to which remedial programme and cultural support specifically influence the attainment of SDG 4 in public senior secondary schools, and on whether male and female teachers perceive these influences differently. This study was therefore designed to address this gap.

### **Statement of the Problem**

Public senior secondary schools in Rivers State continue to record learners who have fallen behind academically owing to interrupted schooling, poor foundational skills, or inadequate classroom support, with many of them at risk of dropping out entirely if left unassisted. At the same time, schools that pay little attention to the cultural backgrounds, languages, and traditions of their learners risk alienating students from minority or disadvantaged communities, undermining their sense of belonging and participation in the schooling process. Both concerns bear directly on the attainment of Sustainable Development Goal Four, which requires that education be not only accessible but also inclusive, equitable, and of good quality for every learner. This raises the question of whether remedial programme and cultural support, as currently practised, are perceived by teachers, who interact daily with these learners, as meaningfully influencing the attainment of SDG 4. It was this concern that necessitated the present study on the influence of remedial programme and cultural support on Sustainable Development Goal Four in public senior secondary schools in Rivers State.

### **Purpose of the Study**

The purpose of this study was to examine the influence of compensatory approaches on Sustainable Development Goal Four in public senior secondary schools in Rivers State. Specifically, the objectives were to:

1. establish the extent to which remedial programme influences sustainable development goal four in public senior secondary schools in Rivers State.
2. ascertain the extent to which cultural support influences sustainable development goal four in public senior secondary schools in Rivers State.

### **Research Questions**

The following research questions guided the study:

1. To what extent does remedial programme influence sustainable development goal four in public senior secondary schools in Rivers State?
2. To what extent does cultural support influence sustainable development goal four in public senior secondary schools in Rivers State?

## **Hypotheses**

The following null hypotheses were tested at the 0.05 level of significance:

1. There is no significant difference in the mean ratings of male and female teachers on the extent to which remedial programme influences sustainable development goal four in public senior secondary schools in Rivers State.
2. There is no significant difference in the mean ratings of male and female teachers on the extent to which cultural support influences sustainable development goal four in public senior secondary schools in Rivers State.

## **METHODOLOGY**

The study adopted a descriptive survey research design, which is appropriate for a systematic, objective, and comprehensive assessment of the extent to which compensatory approaches influence SDG 4 in public senior secondary schools in Rivers State. The population of the study comprised 5,676 teachers in the 367 public senior secondary schools in Rivers State. The Taro Yamane formula was used to determine a sample size of 374 teachers, drawn through proportionate stratified random sampling to reflect the male and female teacher population. The instrument for data collection was a self-structured questionnaire titled Influence of Compensatory Approaches on Sustainable Development Goal Four Questionnaire (ICASDGFQ), made up of a demographic section and a section containing items on remedial programme and cultural support, rated on a four-point scale of Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1). The instrument was subjected to face and content validation by two experts in Educational Management and one expert in Measurement and Evaluation, all in the Faculty of Education, Rivers State University. Reliability was established using Cronbach's Alpha through a test-retest administration to 30 teachers outside the study sample, yielding coefficients of 0.76 for remedial programme and 0.78 for cultural support. Of the 374 copies of the questionnaire administered, 360 were properly completed and retrieved, comprising 197 male teachers and 163 female teachers. The research questions were answered using mean and standard deviation, with any item or aggregate mean of 2.50 and above regarded as high extent, and below 2.50 regarded as low extent. The null hypotheses were tested using the z-test statistic at the 0.05 level of significance, with the decision rule that the null hypothesis is rejected where the calculated z-value exceeds the critical value of  $\pm 1.96$ .

## **Results**

**Research Question 1:** To what extent does remedial programme influence sustainable development goal four in public senior secondary schools in Rivers State?

**Table 1: Mean Responses on the Extent to which Remedial Programme Influences Sustainable Development Goal Four**

| S/N | Item                                                                                                   | Male Teachers N = 197 |     |           | Female Teachers N = 163 |     |           |
|-----|--------------------------------------------------------------------------------------------------------|-----------------------|-----|-----------|-------------------------|-----|-----------|
|     |                                                                                                        | Mean                  | SD  | Remark    | Mean                    | SD  | Remark    |
| 1   | Remedial education helps young people who dropped out of formal education to continue their education. | 2.90                  | .86 | HE        | 2.78                    | .77 | HE        |
| 2   | Remedial education promotes equality with peers educationally.                                         | 3.31                  | .65 | HE        | 2.88                    | .87 | HE        |
| 3   | Private tutoring programme helps students to reach their benchmark.                                    | 3.15                  | .52 | HE        | 3.24                    | .45 | HE        |
| 4   | It helps students to gain understanding of difficult concepts.                                         | 3.28                  | .59 | HE        | 2.69                    | .91 | HE        |
| 5   | After-school classes help to improve students' academic performance.                                   | 3.23                  | .49 | HE        | 2.54                    | .93 | HE        |
| 6   | Remedial education provides professional guidance to students.                                         | 3.38                  | .54 | HE        | 2.74                    | .83 | HE        |
|     | <b>Grand Mean/SD</b>                                                                                   | <b>3.21</b>           |     | <b>HE</b> | <b>2.81</b>             |     | <b>HE</b> |

Table 1 revealed that all six items relating to helping dropouts continue their education, promoting equality with peers, private tutoring, understanding difficult concepts, after-school classes, and professional guidance recorded mean scores above the criterion mean of 2.50 for both male and female teachers, and were rated high extent. The aggregate mean values of 3.21 (male) and 2.81 (female), both above the criterion mean, indicate that remedial programme influences sustainable development goal four to a high extent in public senior secondary schools in Rivers State. The standard deviation values of .61 and .79 show that the respondents were not widely dispersed in their responses, although the comparatively larger gap between the male and female aggregate means, relative to the other compensatory approaches, suggests a more pronounced difference in how the two groups experience the effect of remedial programmes.

**Research Question 2:** To what extent does cultural support influence sustainable development goal four in public senior secondary schools in Rivers State?

**Table 2: Mean Responses on the Extent to which Cultural Support Influences Sustainable Development Goal Four**

| S/N | Item                                                                                                                                                                                             | Male Teachers N = 197 |      |        | Female Teachers N = 163 |     |        |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------|--------|-------------------------|-----|--------|
|     |                                                                                                                                                                                                  | Mean                  | SD   | Remark | Mean                    | SD  | Remark |
| 1   | Cultural support encourages acceptance of learners from diverse backgrounds, including students with disabilities and those from minority groups.                                                | 2.60                  | 1.12 | HE     | 2.58                    | .99 | HE     |
| 2   | Cultural support programmes help individuals understand and appreciate their cultural heritage, traditions, values, and history.                                                                 | 3.23                  | .49  | HE     | 2.61                    | .71 | HE     |
| 3   | It contributes to the preservation of indigenous knowledge, languages, customs, arts, and traditions, ensuring that cultural heritage is passed on to future generations.                        | 2.80                  | .95  | HE     | 2.81                    | .82 | HE     |
| 4   | Exposure to different cultures helps students appreciate cultural differences and develop respect, tolerance, and acceptance of people from diverse backgrounds.                                 | 2.63                  | 1.09 | HE     | 2.76                    | .86 | HE     |
| 5   | Cultural support programmes foster unity and mutual understanding among individuals and communities by promoting intercultural dialogue and cooperation.                                         | 3.37                  | .56  | HE     | 2.83                    | .92 | HE     |
| 6   | Cultural support programmes strengthen shared values and collective identity among individuals and communities by promoting intercultural dialogue and cooperation.                              | 3.26                  | .61  | HE     | 2.98                    | .76 | HE     |
| 7   | Cultural programmes often involve parents, traditional leaders, artists, and community members, strengthening school-community relationships and encouraging community involvement in education. | 3.28                  | .55  | HE     | 2.80                    | .84 | HE     |

| S/N | Item       | Male Teachers N = 197 |    |        | Female Teachers N = 163 |    |        |
|-----|------------|-----------------------|----|--------|-------------------------|----|--------|
|     |            | Mean                  | SD | Remark | Mean                    | SD | Remark |
|     | Grand Mean | 3.02                  |    | HE     | 2.77                    |    | HE     |

Table 2 revealed that all seven items, covering acceptance of learners from diverse backgrounds, appreciation of cultural heritage, preservation of indigenous knowledge, tolerance of cultural differences, intercultural dialogue, shared values, and community involvement, recorded mean scores above the criterion mean of 2.50 for both male and female teachers, and were rated high extent. The aggregate mean values of 3.02 (male) and 2.77 (female) exceed the criterion mean, indicating that cultural support influences sustainable development goal four to a high extent in public senior secondary schools in Rivers State. The standard deviation values of .77 and .84, which are relatively larger than those recorded for other compensatory approaches, suggest a somewhat wider spread of opinion among respondents regarding how cultural support translates into practice.

### Types of Hypotheses

**Hypothesis 1:** There is no significant difference in the mean ratings of male and female teachers on the extent to which remedial programme influences sustainable development goal four in public senior secondary schools in Rivers State.

**Table 3: z-test Analysis of the Mean Differences between Male and Female Teachers on the Extent Remedial Programme Influences Sustainable Development Goal Four**

| Variable/Status | N   | Mean | SD  | df  | z-cal. | z-crit. | Sig. | Decision |
|-----------------|-----|------|-----|-----|--------|---------|------|----------|
| Male Teachers   | 197 | 3.21 | .61 | 358 | 6.96   | 1.96    | .00  | Rejected |
| Female Teachers | 163 | 2.81 | .79 |     |        |         |      |          |

Table 3 revealed that male teachers recorded a mean and standard deviation of 3.21 and .61, while female teachers recorded a mean and standard deviation of 2.81 and .79. With a degree of freedom of 358, the calculated z-value of 6.96 is greater than the critical value of 1.96 at the 0.05 level of significance. The null hypothesis is therefore rejected, implying that there is a significant difference between the mean ratings of male and female teachers on the extent to which remedial programme influences sustainable development goal four in public senior secondary schools in Rivers State.

**Hypothesis 2:** There is no significant difference in the mean ratings of male and female teachers on the extent to which cultural support influences sustainable development goal four in public senior secondary schools in Rivers State.

**Table 4: z-test Analysis of the Mean Differences between Male and Female Teachers on the Extent Cultural Support Influences Sustainable Development Goal Four**

| Variable/Status | N   | Mean | SD  | df  | z-cal. | z-crit. | Sig. | Decision |
|-----------------|-----|------|-----|-----|--------|---------|------|----------|
| Male Teachers   | 197 | 3.03 | .77 | 358 | 3.75   | 1.96    | .00  | Rejected |
| Female Teachers | 163 | 2.77 | .84 |     |        |         |      |          |

Table 4 revealed that male teachers recorded a mean and standard deviation of 3.03 and .77, while female teachers recorded a mean and standard deviation of 2.77 and .84. With a degree of freedom of 358, the calculated z-value of 3.75 is greater than the critical value of 1.96 at the 0.05 level of significance. The null hypothesis is therefore rejected, implying that there is a significant difference between the mean ratings of male and female teachers on the extent to which cultural support influences sustainable development goal four in public senior secondary schools in Rivers State.

## DISCUSSION

The results in Table 1 revealed that remedial programme influences sustainable development goal four to a high extent in public senior secondary schools in Rivers State. This finding aligns with Vintere (2018), who observed that students' progress at different rates is due to factors such as socioeconomic status, resource accessibility, and teacher biases, all of which classroom-based interventions like remedial education are designed to address. It also corroborates Smith and Johnson (2022), who note that remedial practices, including individualized instruction, small-group learning, multi-sensory techniques, and formative assessment, provide struggling learners with a tailored learning experience that addresses their unique strengths and needs. Every item under this construct, including help for out-of-school learners, private tutoring, and professional guidance, was rated high extent, underscoring the broad-based confidence teachers place in remedial education as a compensatory strategy. Hypothesis 1 revealed a significant difference between the mean ratings of male and female teachers, with male teachers rating the influence of remedial programme considerably higher than their female counterparts, a gap that may reflect differing levels of direct involvement in the delivery of remedial instruction between the two groups.

The results in Table 2 revealed that cultural support influences sustainable development goal four to a high extent in public senior secondary schools in Rivers State. This finding is consistent with Patta and Agabi (2023), who argue that schools which embrace cultural diversity are more likely to provide equitable educational opportunities that align with the goals of SDG 4, and with

Ukala and Adieme (2024), who define cultural support as the values, beliefs, traditions, attitudes, and practices within families, communities, and schools that encourage and sustain educational participation and achievement. The comparatively lower rating for the item on acceptance of learners with disabilities and those from minority groups, relative to other items in the construct, suggests that while cultural support is broadly effective, translating cultural acceptance into concrete support for the most marginalized learners remains an area requiring deliberate attention. Hypothesis 2 revealed a significant difference between the mean ratings of male and female teachers, indicating that the two groups do not share identical perceptions of how cultural support influences SDG 4 attainment in secondary schools.

## CONCLUSION

This study examined the influence of two compensatory approaches, remedial programme and cultural support, on the attainment of Sustainable Development Goal Four in public senior secondary schools in Rivers State. The findings showed that both approaches influence SDG 4 to a high extent, with remedial programme recording the highest aggregate mean among male teachers of any compensatory approach examined in this line of research, underscoring its perceived strength as an intervention for learners who have fallen behind. Male and female teachers held significantly different perceptions regarding the influence of both remedial programme and cultural support, with male teachers consistently rating the influence of both approaches higher than female teachers. The study concludes that remedial programme and cultural support are valuable compensatory tools for the attainment of SDG 4 in Rivers State, but that the gender gap in perception, together with the comparatively lower confidence expressed regarding support for learners with disabilities and those from minority groups, indicates specific areas that require further strengthening.

## RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

1. The Rivers State Government should expand the provision of remedial programmes, including after-school classes, private tutoring, and professional academic guidance, for students who have dropped out of school or fallen behind academically, to strengthen the attainment of SDG 4.
2. School management and the Rivers State Ministry of Education should fully institutionalize cultural support practices, including the involvement of parents, traditional leaders, and community members in school activities, while paying particular attention to strengthening support for learners with disabilities and those from minority backgrounds.

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