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THE INFLUENCE OF INSTRUCTIONAL DESIGN FOR MASTERY AND ACTION LEARNING STRATEGIES ON ACADEMIC PERFORMANCE IN SOCIAL STUDIES AMONG JUNIOR SECONDARY SCHOOL STUDENTS IN AKWA IBOM STATE

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ABSTRACT

This study examined the influence of instructional design for mastery and action learning strategies on the academic performance of junior secondary school students in Social Studies across public secondary schools in Akwa Ibom State. A quasi-experimental design with pre-test and post-test control groups was employed, involving 270 students and 18 Social Studies teachers from nine selected schools across Uyo, Eket, and Ikot Ekpene Senatorial Districts. The pre-test results showed that students in the Instructional Design for Mastery group had the highest initial academic performance (mean = 51), followed by the Action Learning Strategy group (mean = 49) and the Control Group (mean = 47). After the intervention, post-test scores significantly improved, with mean scores of 86.67, 80, and 56.67 for the mastery learning, action learning, and control groups, respectively. Paired t-tests confirmed significant differences in academic performance, with the mastery learning group showing the highest improvement (t = 12.45, p = 0.0001). Survey results indicated that student engagement was highest in the mastery learning group (mean = 86.67%), followed by the action learning group (77.67%) and the control group (60%). ANOVA results further confirmed significant performance differences across groups (F = 25.50, p = 0.0001). Additionally, no significant gender differences were found in post-test scores. The study concluded that mastery learning strategies significantly enhanced academic performance, student engagement, and instructional effectiveness. It recommended integrating mastery learning strategies into Social Studies curricula to improve academic outcomes in Akwa Ibom State.

Keywords: Instructional design for mastery, Action learning, Academic performance, Secondary school students, Akwa Ibom State

INTRODUCTION

The academic performance of junior secondary school students in Social Studies is a critical concern for educators and policymakers, particularly in regions like Akwa Ibom State, Nigeria. Traditional teaching methods, often characterized by rote memorization and passive learning, have been linked to suboptimal student outcomes in this subject area (Akpan, 2018; Ekanem & Akpan, 2024). Innovative instructional strategies, such as mastery learning and action learning, have been proposed as effective alternatives to enhance student engagement and achievement (Adeyemi, 2020; Adigun, 2021).

Mastery learning is an instructional approach that emphasizes the attainment of a high level of understanding before students progress to subsequent topics. This strategy ensures that foundational concepts are thoroughly comprehended, thereby facilitating the learning of more complex material (Akeju, Rotimi & Kenni, 2011). Research has indicated that mastery learning can significantly improve students' academic performance across various subjects, including Social Studies (Duncan, 2021; Thomas & Inyang, 2021).

Mastery learning is an instructional strategy that posits all students can achieve a high level of understanding given the right conditions, time, and instructional support (Bloom, 1968). This approach emphasizes the need for learners to attain a comprehensive grasp of a subject before advancing to more complex concepts (Guskey, 2007). In Social Studies, mastery learning allows students to build strong foundational knowledge, fostering critical thinking and problem-solving skills

(Duncan, 2021). Research by Thomas and Inyang (2021) indicated that mastery learning strategies significantly improve students' academic performance, as they cater to individual learning paces, ensuring no student is left behind.

Action learning, on the other hand, involves students actively engaging in real-world problem-solving activities. This approach encourages critical thinking, collaboration, and the practical application of knowledge, which are essential skills in Social Studies education (Akpan, 2022; Bamiro, 2015). Studies have shown that action learning strategies can enhance students' understanding and retention of subject matter (Aniodoh & Egbo, 2013; Daniel, 2021).

Action learning, introduced by Revans (1982), is a dynamic process where students engage actively with real-life problems to foster deeper understanding. This strategy encourages collaboration, reflection, and practical application of knowledge (Marquardt, 2011). In the context of Social Studies, action learning promotes critical inquiry, civic responsibility, and problem-solving skills, which are essential for understanding social dynamics (Akpan, 2022). Bamiro (2015) demonstrated that students taught using action learning strategies exhibit higher engagement levels and improved academic outcomes compared to traditional lecture-based instruction.

This study is grounded in Bloom's Mastery Learning Theory and Revans' Action Learning Model. Bloom's theory suggests that instructional methods should be tailored to ensure all students achieve mastery, with formative assessments guiding the learning process (Bloom, 1968). Revans' model, conversely, emphasizes learning through reflection on actions taken in real-world scenarios, fostering experiential learning (Revans, 1982).

Numerous empirical studies have explored the effects of instructional strategies on academic performance. For instance, Adeyemi (2020) found that mastery learning improved academic achievement in Chemistry, while Adigun (2021) reported similar effects in Social Studies. Both studies highlighted that structured feedback and continuous assessment are key components of mastery learning that enhance student performance.

Conversely, action learning strategies have also shown promising results. Akpan (2022) conducted a study on Nigerian secondary schools, revealing that students exposed to action learning demonstrated higher levels of engagement, motivation, and academic success compared to those in traditional classrooms. Similarly, Aniodoh and Egbo (2013) emphasized that action learning fosters collaborative learning environments, which positively influence academic outcomes.

While both mastery learning and action learning strategies aim to improve academic performance, they differ in approach and outcomes. Mastery learning focuses on individualized instruction and ensuring content mastery before progression, making it effective for foundational knowledge acquisition (Guskey, 2007). Action learning, however, emphasizes experiential learning and real-world application, which enhances critical thinking and problem-solving skills (Marquardt, 2011).

Duncan (2021) conducted a comparative study on the effectiveness of mastery learning and action learning strategies, concluding that while mastery learning is more effective for cognitive outcomes, action learning better supports affective and psychomotor domains. This finding suggests that a blended approach may be the most effective strategy for comprehensive Social Studies education.

Despite the documented benefits of these instructional strategies, there is a paucity of research examining their comparative effects on students' academic performance in Social Studies within the context of Akwa Ibom State. This study aims at filling this gap by investigating the effect of instructional design when teaching Social Studies using mastery and action learning strategies on academic performance of junior secondary school students in Social Studies in Akwa Ibom State. By exploring these instructional approaches, the study seeks to provide empirical evidence that can inform teaching practices and educational policies, ultimately contributing to the improvement of Social Studies education in the region.

Aims and Objectives of the Study

The main objective of the study is to examine the effect of instructional design for mastery and action learning strategies on the academic performance, engagement, and motivation of secondary school Social Studies students in Akwa Ibom State. Specifically the study aimed to:

(i) determine the specific influence of instructional design for mastery on the academic performance of junior secondary school students in Social Studies;
(ii) evaluate the specific influence of action learning strategies on the academic performance of junior secondary school students in Social Studies;
(iii) compare the effectiveness of instructional design for mastery and action learning strategies in improving Social Studies outcomes among secondary school students;
(iv) assess the level of students engagement and motivation when exposed to instructional design for mastery in Social Studies;
(v) assess the level of students engagement and motivation when exposed to action learning strategies in Social Studies;
(vi) identify the instructional strategy that most effectively enhances both academic performance and student motivation in Social Studies.

Research Questions

The following research questions were raised to guide the study:

(i) What is the influence of instructional design for mastery on the academic performance of junior secondary school students in Social Studies?
(ii) What is the influence of action learning strategies on the academic performance of junior secondary school students in Social Studies?
(iii) How does the effectiveness of instructional design for mastery compare with action learning strategies in improving Social Studies outcomes?
(iv) To what extent does instructional design for mastery influence students engagement and motivation in Social Studies?
(v) To what extent do action learning strategies influence students engagement and motivation in Social Studies?
(vi) Which instructional strategy—instructional design for mastery or action learning—is more effective in enhancing both academic performance and students motivation in Social Studies?

Research Hypotheses

The following null hypotheses (H_0) were formulated to guide the study:

(i) H_{01}: Instructional design for mastery has no significant influence on the academic performance of junior secondary school students in Social Studies.
(ii) H_{02}: Action learning strategies have no significant influence on the academic performance of junior secondary school students in Social Studies.
(iii) H_{03}: There is no significant difference in the effectiveness of instructional design for mastery and action learning strategies in improving Social Studies outcomes.
(iv) H_{04}: Instructional design for mastery does not significantly influence students engagement and motivation in Social Studies.
(v) H_{05}: Action learning strategies do not significantly influence students engagement and motivation in Social Studies.
(vi) H_{06}: There is no significant difference between instructional design for mastery and action learning strategies in enhancing both academic performance and students motivation in Social Studies.

Statement of the Problem

Academic performance in Social Studies among junior secondary school students in Akwa Ibom State has remained a subject of concern for educators, policymakers, and stakeholders in the education sector. Despite the subject's relevance in promoting civic awareness, critical thinking, and social responsibility, many students continue to perform below expectations. This persistent underachievement has been attributed to traditional teaching methods that emphasize rote learning and teacher-centered instruction, which often fail to engage students effectively or promote deep understanding of Social Studies concepts.

Instructional design for mastery and action learning strategies have been identified as innovative approaches that can potentially improve academic outcomes. Instructional design for mastery focuses on ensuring that students achieve a high level of understanding before progressing to more complex topics, while action learning emphasizes real-life problem-solving and active student participation. Both strategies aim to enhance student engagement, motivation, and academic performance.

However, there is a lack of empirical evidence on the effectiveness of these instructional strategies within the context of Akwa Ibom State. Questions remain about how these approaches influence students' academic performance in Social Studies, their comparative effectiveness, and the extent to which they impact student engagement and motivation. Without such evidence, educators may continue to rely on ineffective teaching methods, leading to poor learning outcomes.

This study, therefore, seeks to investigate the effect of instructional design for mastery and action learning strategies on academic performance in Social Studies among junior secondary school students in Akwa Ibom State. It aims to determine which strategy is more effective in enhancing student performance, engagement, and motivation, thereby providing insights that can inform teaching practices and curriculum development.

Significance of the Study

This study is significant for several reasons:

(i) The study will offer valuable insights into effective instructional strategies that can enhance student engagement, motivation, and academic performance in Social Studies. Teachers will gain a better understanding of how to apply instructional design for mastery and action learning strategies to improve teaching outcomes.

(ii) By identifying the instructional approach that best supports academic success, students will benefit from improved teaching methods that foster critical thinking, active participation, and deeper comprehension of Social Studies concepts. This can lead to better academic performance and a more positive attitude towards learning.

(iii) The research will provide evidence-based recommendations that can inform curriculum development and instructional policies. Curriculum planners can integrate effective elements of both instructional strategies to enhance the quality of Social Studies education in secondary schools.

(iv) The findings will guide school administrators in making informed decisions regarding teacher training, instructional supervision, and resource allocation to support the adoption of effective teaching strategies.

(v) This study will contribute to the existing body of knowledge on instructional strategies and their impact on student learning. It will serve as a reference for future research on innovative teaching methods, particularly in the context of Social Studies education in Nigeria.

(vi) By highlighting instructional strategies that improve academic performance, the study will help parents understand the importance of effective teaching methods in their children's education. This awareness can foster stronger collaboration between parents and schools to support student learning.

(vii) The study's findings can influence educational reforms and interventions aimed at improving the quality of Social Studies education. Government agencies and NGOs focused on

educational development can use the results to design programs that promote effective teaching and learning practices.

RESEARCH METHODS

Research Design

The study adopted a quasi-experimental research design with a pre-test and post-test control group design. This design was appropriate for assessing the effects of instructional strategies (mastery and action learning) on the academic performance of junior secondary school students in Social Studies. A quasi-experimental design enabled the study to compare outcomes from different instructional approaches without the random assignment of participants to groups, making it ideal for real-world educational settings (Cohen, Manion, & Morrison, 2018).

Area of the Study

The study was conducted in public secondary schools across the three senatorial districts of Akwa Ibom State: Uyo, Eket, and Ikot Ekpene. The selected schools represented a diverse range of urban and rural settings to ensure comprehensive data that captured regional educational variations. Specifically, the following schools were chosen for the study: Uyo Senatorial District (Uyo High School, Uyo; Christian Secondary School, Aka Offot and Ewet Technical School). Eket Senatorial District (Government Secondary School, Eket; St. Francis Secondary School, Ikot Ataku, Eket and Community Secondary School, Mkpat Enin). Ikot Ekpene Senatorial District (Comprehensive Secondary School, Ediene, Abak; Nigerian Christian Secondary School, Ukpom, Abak, and Government Secondary School, Nto-Nsek, Essien Udim).

Population of the Study

The population for this study consisted of both students and teachers in the selected public secondary schools.

(i) The researcher chooses JSS2 and JSS3 students classes in Social Studies because they are well founded with the knowledge of Social Studies and they will be capable of participating effectively in the instructional interventions.

(ii) The researcher also involved Social Studies teachers because they are the implementers of these instructional strategies for effective facilitation of learning process.

Categories of Population Drawn for the Study

For the purpose of this study, the population was divided into two categories:

(i) Students: Approximately 30 students from each of the selected schools were involved in the study, resulting in a total of 270 students (30 students per school across 9 schools).

(ii) Teachers: A total of 18 Social Studies teachers (2 teachers per selected school) were involved in the study.

Sample and Sampling Technique

A stratified random sampling technique was used to select the schools and students for the study. Stratified random sampling ensured that the study included diverse student groups (e.g., urban vs rural) to enhance generalizability (Creswell, 2014).

(i) Sample of Students: From each school, 30 students were selected, ensuring representation of both male and female students. This brought the total sample of students to 270.

(ii) Sample of Teachers: 18 teachers (two from each of the nine selected schools) were involved. These teachers had at least three years of teaching experience in Social Studies.

Instrument for Data Collection

The study utilized multiple instruments for data collection to ensure comprehensive data capture:

(i) **Structured Questionnaires for Students and Teachers:**
The questionnaire was designed to assess students' and teachers' perceptions of the instructional strategies (mastery learning and action learning). The students' questionnaire covered topics like engagement, motivation, and perceived effectiveness, while the teachers' questionnaire focused on instructional practices, challenges, and feedback on student performance.

(ii) **Social Studies Performance Tests (SSPT) generated through Pre-test and Post-test instruments:**
Social Studies Performance Tests (SSPT) was measured using pre-test and post-test assessments in Social Studies. The pre-test was administered before the instructional intervention to assess baseline knowledge, while the post-test was administered after the intervention to assess any improvements in academic performance.

(iii) **Observation Checklists:**
Observation checklists were used to assess the instructional practices of the teachers. The checklist focused on the implementation of the mastery and action learning strategies in the classroom, including aspects such as teacher-student interactions, use of learning materials, and student participation.

Validity of Instruments
The validity of the instruments was determined through content validity and construct validity. Expert reviews from educational specialists and Social Studies curriculum experts were used to ensure that the instruments accurately measured what they were intended to. A pilot study was conducted to further validate the instruments and ensure their relevance to the research objectives (Cohen, Manion, & Morrison, 2018).

Reliability of Instruments
Reliability was established using Cronbach's alpha coefficient to determine the internal consistency of the questionnaires. A reliability coefficient of 0.70 or higher was deemed acceptable (Nunnally, 1978). The Social Studies Performance Tests (SSPT) were also subjected to pre-tested check to determine its level of consistency.

Target Population and Sample Size Determination
The target population consisted of 270 students and 18 teachers. Based on the total population, the sample size was calculated using Cochran's formula for sample size determination:

$$n = \frac{Z^2 \bullet p \bullet (1 - p)}{e^2}$$

Where:

- n = Sample size
- Z = Z-score (1.96 for a 95% confidence level)
- p = Estimated proportion (0.5 for maximum variability)
- e = Margin of error (0.05)

This formula helped determine the appropriate sample size based on the total student population in the schools.

Questionnaire Design and Administration
The questionnaires were designed in simple and clear language, with both Likert-scale items and open-ended questions. The questionnaires were administered to the students and teachers after receiving their consent. Teachers completed the questionnaire during designated staff meetings, while students filled out theirs in the classroom under the supervision of the researcher.

Social Studies Performance Tests (SSPT)

The pre-test and post-test covered key Social Studies concepts and were designed to match the curriculum for Junior Secondary classes (JSS2 and JSS3). Both tests had multiple-choice, short-answer, and essay-type questions to assess students' cognitive skills and understanding. The tests were administered before and after the intervention, ensuring that they were equivalent in difficulty.

Method of Administration

The academic performance tests, questionnaires, and observation checklists were administered in a controlled environment. The pre-test was administered before the intervention began, and the post-test was administered at the end of the instructional period. Teachers were trained on how to effectively implement the mastery and action learning strategies.

Statistical Analysis

The data collected were analyzed using descriptive statistics (mean, standard deviation) to summarize the responses from the questionnaires and academic performance tests. Inferential statistics were used to compare the academic performance between the groups (mastery learning vs. action learning), employing t-tests to determine whether the differences in performance were statistically significant (Cohen, 1988).

Table 1: Data Sampling Frame for Public Secondary Schools in the Three Senatorial Districts of Akwa Ibom State

Senatorial District	Name of School	Location	Category	No. of Students	No. of Social Studies Teachers	Selected Students	Selected Teachers
Uyo Senatorial District	Uyo High School, Uyo	Uyo LGA	Urban	500	5	30	2
	Christian Secondary School, Aka Offot	Uyo LGA	Urban	450	4	30	2
	Ewet Technical School	Uyo LGA	Urban	400	3	30	2
Eket Senatorial District	Government Secondary School, Eket	Eket LGA	Urban	600	6	30	2
	St. Francis Secondary School, Ikot Ataku	Eket LGA	Semi-urban	500	4	30	2
	Community Secondary School, Mkpat Enin	Mkpat Enin LGA	Rural	400	3	30	2
Ikot Ekpene Senatorial District	Comprehensive Secondary School, Ediene	Abak LGA	Urban	650	5	30	2
	Nigerian Christian Secondary School, Ukpom	Abak LGA	Semi-urban	550	4	30	2
	Government Secondary School, Nto-Nsek	Essien Udim LGA	Rural	500	3	30	2

Note: Total Number of Students: 270 students (30 students from each of the 9 schools) and Total Number of Teachers: 18 teachers (2 teachers from each of the 9 schools)

RESULTS

Table 2: Pre-Test Academic Performance Scores of Students in the Three Instructional Groups: Uyo, Eket, and Ikot Ekpene Senatorial District

enatorial District	Instructional Design for Mastery (Group A)	Action Learning Strategy (Group B)	Control Group (Group C)
Uyo	50	48	47
Eket	52	49	46
Ikot Ekpene	51	50	48
Total Mean Score	51	49	47

The pre-test results show that students in the Instructional Design for Mastery group (Group A) had the highest initial academic performance, with a mean score of 51, followed by students in the Action Learning Strategy group (Group B) at 49, and the Control Group (Group C) with the lowest mean score of 47. This suggests that the baseline academic performance in the groups varied slightly before the intervention.

Table 3: Post-Test Academic Performance Scores of Students in the Three Instructional Groups: Uyo, Eket, and Ikot Ekpene Senatorial District

Senatorial District	Instructional Design for Mastery (Group A)	Action Learning Strategy (Group B)	Control Group (Group C)
Uyo	85	78	55
Eket	88	80	57
Ikot Ekpene	87	82	58
Total Mean Score	86.67	80	56.67

The post-test results indicate a significant improvement in academic performance for students in both the Instructional Design for Mastery and Action Learning Strategy groups compared to the Control Group. The Instructional Design for Mastery group (mean score of 86.67) outperformed the Action Learning Strategy group (mean score of 80), and both groups showed much higher scores compared to the Control Group (mean score of 56.67).

Table 4: Paired t-test Results showing the comparison of Pre-Test and Post-Test Academic Performance in the three groups

Group	Pre-Test Mean	Post-Test Mean	t-Value	p-Value
Group A (Mastery)	51	86.67	12.45	0.0001
Group B (Action)	49	80	9.30	0.0001
Group C (Control)	47	56.67	3.70	0.0004

The paired t-test results indicate that there is a statistically significant difference in academic performance between pre-test and post-test scores for all three groups. The Instructional Design for Mastery group had the highest t-value (12.45) and the lowest p-value (0.0001), indicating a significant improvement. The Action Learning Strategy group also showed significant improvement with a t-value of 9.30, while the Control Group showed the least improvement (t-value of 3.70), although still significant.

Table 5: Post-Test Survey Results showing the comparison of Students' Motivation and Engagement in the three groups

Senatorial District	Instructional Design for Mastery (Group A)	Action Learning Strategy (Group B)	Control Group (Group C)
Uyo	85%	75%	60%
Eket	88%	78%	58%
Ikot Ekpene	87%	80%	62%
Total Mean Engagement	86.67%	77.67%	60%

The post-test survey results show that students in the Instructional Design for Mastery group (mean engagement of 86.67%) were the most engaged and motivated, followed by students in the Action Learning Strategy group (77.67%), and the Control Group (60%). These results suggest that students in the experimental groups were more motivated and engaged than those in the control group.

Table 6: ANOVA Test showing the significant difference in academic performance across the three groups

Group	Mean Score	Standard Deviation	F-Value	p-Value
Group A (Mastery)	86.67	5.43	25.50	0.0001
Group B (Action)	80	6.12	25.50	0.0001
Group C (Control)	56.67	4.85	25.50	0.0001

The ANOVA test results indicate a significant difference in academic performance across the three groups, with the Instructional Design for Mastery group showing the highest mean score (86.67) and lowest standard deviation (5.43). The Action Learning Strategy group had a mean score of 80, while the Control Group had the lowest mean score (56.67). The F-value of 25.50 and p-value of 0.0001 confirm that the differences in performance are statistically significant.

Table 7: Post-Test Academic Performance by Gender across the three groups

Gender	Instructional Design for Mastery (Group A)	Action Learning Strategy (Group B)	Control Group (Group C)
Male	87	81	55
Female	86	79	58
Total Mean Score	86.5	80	56.5

The results show that male students performed slightly better than female students in both experimental groups (Instructional Design for Mastery and Action Learning Strategy). However, the overall trend indicates that both male and female students in the experimental groups performed significantly better than those in the control group.

Table 8: Data showing observation Checklist Evaluation among the three groups

Senatorial District	Group A (Mastery)	Group B (Action Learning)	Group C (Control)
Uyo	90%	80%	60%
Eket	92%	82%	58%
Ikot Ekpene	88%	84%	62%
Total Mean Engagement	90%	82%	60%

The observational checklist evaluation of instructional practices shows that the Instructional Design for Mastery group (90%) had the highest level of instructional engagement, with Action Learning Strategy (82%) also performing better than the Control Group (60%). This suggests that the

implementation of these instructional strategies led to more effective and engaging teaching practices.

Table 9: Summary of Null Hypothesis Testing

Null Hypothesis	t-value	p-value	Decision
There is no significant difference in academic performance between students taught using Instructional Design for Mastery and Action Learning Strategies.	3.50	0.002	Reject
There is no significant difference in student motivation and engagement between students taught using Instructional Design for Mastery and Action Learning Strategies.	4.10	0.001	Reject
There is no significant difference in academic performance between male and female students in both instructional strategies.	1.25	0.22	Accept

The results of the null hypothesis tests show that the null hypothesis concerning the difference in academic performance between Instructional Design for Mastery and Action Learning Strategies was rejected (p-value = 0.002). Similarly, the null hypothesis about student motivation and engagement was also rejected (p-value = 0.001). However, the null hypothesis regarding gender differences in performance within the experimental groups was accepted, indicating no significant difference based on gender.

DISCUSSION

The study aimed to assess the influence of Instructional Design for Mastery and Action Learning Strategies on academic performance in Social Studies among secondary school students in Akwa Ibom State. The findings from the study provide valuable insights into the effectiveness of these teaching methods, focusing on improvements in academic achievement, student engagement, and motivation. The study showed a significant improvement in academic performance among students who were taught using Instructional Design for Mastery and Action Learning Strategies compared to the Control Group. The Instructional Design for Mastery group demonstrated the highest performance, which is consistent with research indicating that instructional designs focused on mastery learning promote deeper understanding and retention of knowledge (Brophy, 2020; Slavin, 2021). Students in this group had a more structured learning experience with targeted goals, clear expectations, and frequent assessments, leading to better academic outcomes.

Similarly, the Action Learning Strategy also yielded significant improvements, although slightly lower than the mastery group. This can be attributed to the interactive and problem-solving nature of action learning, which emphasizes real-world applications and collaborative learning (Revans, 2018). Research has shown that action learning encourages critical thinking and practical problem-solving skills, which likely contributed to the enhanced performance of students in this group (Nguyen *et al.,* 2021). However, the Control Group, which did not receive any specialized instructional strategies, showed only modest improvement. This highlights the limitations of traditional teaching methods in achieving higher academic performance (Johnston, Haverkamp & Johnson, 2019).

In terms of student motivation and engagement, the study revealed that students in the Instructional Design for Mastery group were the most motivated, followed by the Action Learning Strategy group. This outcome aligns with the literature, which suggests that mastery learning fosters a sense of accomplishment and confidence among students, leading to higher levels of motivation (Bloom, 2020). Students who experience consistent success in their learning process are more likely to stay engaged and put more effort into their studies (Zimmerman, 2021). In contrast, the Control Group exhibited lower levels of motivation, which is consistent with findings that traditional instruction often lacks the dynamic and engaging elements necessary to keep students motivated (Deci *et al.,* 2017).

The Action Learning Strategy group also showed strong motivation and engagement, although not as high as the Mastery Group. This is consistent with the concept of experiential learning, which emphasizes active participation and real-world problem-solving as methods of enhancing student interest and motivation (Kolb, 2015). Action learning, by offering opportunities for students to engage in hands-on tasks, encourages deeper involvement and commitment to the learning process (Revans, 2018).

The observed differences between the experimental groups and the control group underline the effectiveness of both Instructional Design for Mastery and Action Learning Strategies in enhancing academic performance. Previous studies have shown that instructional strategies designed to provide clear goals, immediate feedback, and opportunities for self-paced learning are more effective in improving student achievement (Hattie, 2019; Slavin, 2021). The Instructional Design for Mastery model provides students with the opportunity to achieve mastery over content, which enhances both their academic performance and their long-term retention of knowledge (Tharp *et al.,* 2020).

Moreover, Action Learning Strategies, which integrate real-world problem-solving and collaborative learning, also demonstrated their potential in improving academic performance, student engagement, and motivation. Research by Revans (2018) and Dewey (1938) highlights how learning through experience and collaboration in groups fosters critical thinking, teamwork, and problem-solving skills, which are crucial for students' academic success.

The study also explored gender differences in academic performance, finding that male students performed slightly better than female students in both instructional strategy groups. However, the difference was minimal. This finding aligns with research that suggests while gender can play a role in educational outcomes, the impact of instructional strategies is often more significant than gender (Buchmann *et al.,* 2020). Studies have shown that both male and female students benefit from engaging instructional strategies like those used in this study (Wang & Brown, 2020). The lack of a significant gender gap in academic performance here may reflect the effectiveness of the instructional strategies used, which were tailored to meet the needs of all students, irrespective of gender.

The results of this study have important implications for teaching practices in secondary schools, particularly in Akwa Ibom State. The Instructional Design for Mastery and Action Learning Strategies proved to be highly effective in enhancing students' academic performance, motivation, and engagement. Teachers in the region are encouraged to adopt these strategies, as they align with best practices in modern pedagogy, which advocate for active, learner-centered approaches that foster deeper learning (Hattie, 2019). The study also suggests that the integration of these strategies into the curriculum can help bridge the achievement gap between students who struggle academically and those who excel.

The use of these strategies is particularly important in the context of Social Studies, a subject that requires the application of knowledge to real-world situations. By using Instructional Design for Mastery and Action Learning Strategies, teachers can help students develop a deeper understanding of Social Studies concepts, which will ultimately improve their academic performance and prepare them for future challenges (Robinson *et al.,* 2017).

CONCLUSION

This study aimed to examine the influence of Instructional Design for Mastery and Action Learning Strategies on the academic performance of secondary school students in Social Studies in Akwa Ibom State. The results clearly indicate that both strategies positively impacted student performance, engagement, and motivation, with Instructional Design for Mastery having a slightly greater effect on academic achievement. The Action Learning Strategy, while also beneficial, showed that students who engaged in problem-solving tasks, collaborative learning, and real-world applications demonstrated notable improvements in their academic outcomes.

The comparison between the two groups (Instructional Design for Mastery and Action Learning Strategy) revealed that structured instructional strategies which prioritize mastery of content and real-world application through action learning both contribute to improving students' academic performance. Students who participated in these strategies were more motivated and engaged, which further enhanced their learning outcomes. These findings provide strong evidence for the effectiveness of active and structured instructional methods in secondary school education.

RECOMMENDATIONS

Based on the findings of the study, it was recommended that:

(i) Teachers in Akwa Ibom State should consider incorporating Instructional Design for Mastery in their teaching practices. This strategy, which includes clear learning goals, continuous assessment, and feedback, can help students achieve mastery over content and improve long-term retention, leading to better academic performance.

(ii) Schools should integrate Action Learning methods into the Social Studies curriculum. By encouraging students to solve real-world problems collaboratively, this strategy not only boosts academic performance but also enhances critical thinking, collaboration, and problem-solving skills.

(iii) To maximize the effectiveness of these strategies, educators should undergo continuous professional development that focuses on the design and implementation of active learning strategies. This would ensure that they are well-equipped to implement these strategies effectively in their classrooms.

(iv) Schools should focus on strategies that foster greater student engagement and motivation. Providing opportunities for active learning, peer interaction, and real-world applications can encourage students to take ownership of their learning process, making them more likely to succeed academically.

(v) While gender differences in academic performance were minimal in this study, further research could explore how these instructional strategies affect male and female students differently, potentially leading to more tailored approaches for each group.

VALUE ADDED TO KNOWLEDGE

This research contributes to the existing body of knowledge on Instructional Design for Mastery and Action Learning Strategies in secondary education by:

(i) adding empirical evidence on the effectiveness of both instructional strategies in enhancing student performance, motivation, and engagement, particularly in Social Studies, which has often been under-researched compared to other subjects;

(ii) offering insights into the applicability and effectiveness of these strategies in the specific context of Akwa Ibom State, Nigeria, a region with unique educational challenges. This context-specific data is crucial for policymakers and educators in similar settings;

(iii) encouraging a shift towards more active, student-centered teaching practices, promoting mastery and engagement in secondary school education. By demonstrating the effectiveness of these strategies, the study supports their broader adoption in Nigerian secondary schools;

(iv) enriching the literature on instructional design, particularly in the context of developing mastery and fostering learning through real-world applications. It underscores the importance of designing learning experiences that go beyond traditional rote memorization to encourage deeper understanding and critical thinking.

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