PERCEIVED INFLUENCE OF REINFORCEMENT ON ACADEMIC PERFORMANCE OF STUDENTS IN ONDO WEST LOCAL GOVERNMENT AREA OF ONDO STATE

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Abstract
Reinforcement is an essential behaviour management tool for teachers. Positive reinforcement is an effective technique for improving student behaviour. Its influence on teaching and learning cannot be over-emphasized. The study adopted a descriptive survey research design and a self-designed questionnaire titled the "Influence of Reinforcement on Academic Performance questionnaire (IRAPQ) was used to collect data for the study. The target population for this study was all secondary school teachers in the Ondo West local government area, however, one hundred and fifty (150) respondents were drawn using a simple random sampling procedure. The results show a significant difference in the perception of respondents based on gender, but no significant difference based on religion and years of experience. The study recommends encouraging the use of reinforcement in educational institutions and promoting the learning of positive reinforcement techniques by teachers to enhance students' academic achievement.

Key Words: academic performance, behaviour management, perception, reinforcement

Introduction
Reinforcement is one of the teachers' most valuable behaviour management tools. Positive reinforcement is a technique that helps teachers improve students' overall behaviour. Positive reinforcement can be explained simply as timely encouragement which is gentle and effective at the same time. The words, actions, and inactions of a teacher can make or mar students' academic performance. Students need positive reinforcement to improve their performances. Based on a personal experience, a teacher used the wrong words and names for her students (names like "dummy" or "dullard"). That incident threw the students off balance, affecting their performance in some subjects, especially in the subject taught by that teacher. Some of the students were top performers in other subjects, but their performance dropped and we were referred to the counsellor. During the chat with the counsellor, we revealed the encounter we had with our mathematics teacher. However, the school counsellor never engaged the mathematics teacher with the consent of the principal to discuss positive reinforcement for academic enhancement. Positive reinforcement was not implemented, and as a result, many of us still dislike mathematics even after secondary school. I would like to research to help teachers understand the importance of reinforcement and how it can influence students' performance in their various subjects. The need for high academic performance in schools is crucial for societal transformation and development. Many teachers rely on conventional teaching methods without considering how positive reinforcement can positively influence student academic performance (Bryon, 2018).

Akinade (2022) defined positive reinforcement as reinforcement involving the application of pleasant or desirable stimuli in behaviour treatment. It is a hassle-free technique used to bring about a sense of responsibility and discipline in a class. This can include verbal remarks like praises, commendations, and tangible rewards like gifts or non-verbal rewards like being clapped or a pat on the back to encourage good behaviour. Positive reinforcement is essentially an effortless technique to bring about a sense of

responsibility and discipline in a class. It does not involve force but instead motivates learners to achieve better results.

According to Lannie and McCurdy (2015), teachers may need high-impact strategies to improve their students' behaviours while creating a more conducive learning environment. A study by Moore Partin, Robertson, Maggin, Oliver, and Wehby (2010) found that delivering praise as positive reinforcement for students' appropriate behaviours can lead to a decrease in inappropriate behaviours and an increase in appropriate behaviours. The study also showed that students were given more opportunities to respond to academic demands due to fewer distractions in the classroom. Lannie and McCurdy's (2017) study measured students' on-task time and disruptive behaviours. The teacher received formal training on implementing an empirically-based behaviour management plan called the Good Behavior Game. This game was then implemented during one academic period, and students were rewarded based on their team's occurrence of disruptive behaviours. The results of the study showed that students' on-task behaviours increased by nearly 35% and disruptive behaviours decreased by approximately 25%. These results indicate that effective behaviour management plans using positive reinforcement can improve students' behaviours and increase their on-task behaviour. These improvements could potentially lead to better teacher instruction and student achievement, which are the goals of most behaviour management systems.

Recent academic performances of students, particularly at the secondary school level in public schools, have not been satisfactory. Many students complete their secondary school education without being able to read well or demonstrate mastery in other subjects. The effectiveness of reinforcement has been well-documented in various publications, however, many teachers struggle to implement this technique due to a lack of understanding of its fundamentals and effectiveness. This raises the question of whether positive reinforcement can enhance the academic performance of secondary school students in the Ondo Local Government Area of Ondo State, considering its success in other parts of the country and the world. Students face learning challenges due to the words, actions, and inactions of teachers, and it is unclear whether positive reinforcement can be a solution for academic performance issues among students in Ondo State, Nigeria. Consequently, the study aims to investigate the influence of reinforcement on the academic performance of senior secondary school students as perceived by teachers in Ondo State.

Research Hypotheses

The following research hypotheses were raised to guide the study:

1. There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on gender.
2. There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on religion.
3. There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on years of experience.

Methodology

The research design adopted for this study is the descriptive survey method. The target population for the study consists of all secondary school teachers in Ondo Metropolis. A sample of 150 respondents was selected using the simple random sampling procedure. This method provides each member of the target population an equal opportunity to be selected for the study. To ensure the validity of the research instrument, it was reviewed by experts in the field of counseling to establish its content validity. The reliability of the research instrument was determined using the test-retest method by administering the test instrument to forty respondents at an interval of three weeks. The two test results were then correlated

using Pearson's Product Moment Correlation Coefficient, yielding a coefficient of 0.78. The instrument used to collect data is a researcher-developed questionnaire titled the "Influence of Reinforcement on Academic Performance questionnaire (IRAPQ)," which was scored on a four-point Likert scale: Strongly Agree (4 points), Agree (3 points), Disagree (2 points), and Strongly Disagree (1 point). In analyzing the data, t-test and Analysis of Variance (ANOVA) were used to test the hypotheses. All hypotheses were tested at a significance level of 0.05.

Results

Hypothesis 1: There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on Gender.

Table 3: *mean, standard deviation and t-value of respondents on the influence of reinforcement on academic performance based on gender*

Gender	N	Mean	SD	df	Cal. t-value	Crit. t-value	Decision
Male	66	65.24	6.18	148	3.22	1.96	Rejected
Female	84	85.32	8.23				

The t-test result in Table 3 shows that the calculated t-value of 3.22 is greater than the critical t-value of 1.96, based on this hypothesis 1 is rejected because a significant difference exists.

Hypothesis 2: There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on religion.

Table 4: *Analysis of variance result comparing responses on the influence of reinforcement on academic performance by respondents based on religion*

Source	df	SS	MS	Cal. F-value	Crit. F-value	Decision
Between Group	2	3491.37	1745.69			
Within Group	147	5688.28	1172.85	2.86	3.00	Accepted
Total	149	6037.65				

ANOVA result in Table 4 indicates that the calculated f-value of 2.86 is lesser than the critical f-ratio of 3.00, based on this result, hypothesis 2 is accepted because a significant difference does not exist.

Hypothesis 3: There is no significant difference in the influence of reinforcement on academic performance as perceived by respondents based on years of experience.

Table 5: *Analysis of Variance (ANOVA) Result Comparing Responses on the Influence of reinforcement on Academic Performance by Respondents Based on Years of Experience*

Source	df	SS	MS	Cal. F-value	Crit. F-value	Decision
Between Group	2	2531.37	1265.69			
Within Group	147	6687.28	3343.64	1.46	3.00	Accepted
Total	149	6036.65				

The result in Table 5 indicates that the critical f-value of 3.00 is higher than the calculated f-ratio of 1.46; based on this result, hypothesis 3 is accepted because a significant difference does not exist.

Discussion of Findings

The findings indicate the importance of teachers consistently rewarding their students. The majority of respondents also agreed that using bonus marks as a form of reinforcement is beneficial. This is not surprising because people naturally appreciate being acknowledged and rewarded for their efforts. These results align with the findings of Onunkwo and Unachukwu (2015), who demonstrated that verbal praises enhanced secondary school students' commitment to completing homework and improved their cognitive achievement in biology. Similarly, Amadi and Onyeike (2015) used verbal rewards to influence JSS1 students' academic achievement in Igbo language.

The findings also revealed that reinforcement has an impact on students' academic performance in Ondo West Local Government Area of Ondo State. This result is expected since children naturally enjoy rewards. The findings of this study align with those of Amadi et al. (2015), Nnodum et al. (2014), Ukoha (2012), Ingsol in Amadi (2015), Deci and Ryan in Amadi (2015), and Reitman (2011), who conducted various studies that demonstrated the positive influence of token economy and non-verbal rewards on students' academic achievement across different levels and subjects. From this study's findings, it is evident that positive reinforcement plays a crucial role in the academic achievement of secondary school students.

Conclusion

The research findings revealed the influence of each item in the questionnaire. It also indicated that, among the three hypotheses tested, respondents exhibited differences based on gender, while no significant difference was observed based on religion and years of experience.

Recommendations

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

1. Institutions of learning should encourage the use of reinforcement.
2. Teachers at all levels should improve their utilization of positive reinforcement to enhance students' academic achievement.

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