

EFFECT OF TEAM GAMES TOURNAMENT (TGT) COOPERATIVE LEARNING STRATEGY ON ACADEMIC MOTIVATION AND PERFORMANCE OF DEAF STUDENTS IN NORTH-WEST, NIGERIA

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ABSTRACT

This study investigates the effect of the Team Games Tournament (TGT) cooperative learning strategy on the academic motivation and performance of deaf students in Geography in North-West Nigeria. A one-group pre-test, post-test pre-experimental design was adopted, with a sample of twenty-six (26) Senior Secondary II deaf students selected through purposive sampling. The instruments used were the Academic Motivation Scale (AMS) and Geography Academic Performance Test (GAPT). Data were analyzed using paired-samples t-tests at a 0.05 level of significance. The results revealed statistically significant increases in both academic motivation (mean: 73.00 to 120.91; $t(25) = 10.029, p < .05$) and academic performance (mean: 15.73 to 28.96; $t(25) = 13.904, p < .05$) following the TGT intervention. However, due to the absence of a control group, causal inferences cannot be made. It was concluded that TGT is a promising strategy that raises participation and teamwork among deaf students, but these preliminary findings require validation through more rigorous experimental designs. Teachers are encouraged to consider cooperative learning strategies to promote inclusive education.

Keywords: Team Games Tournament, Academic motivation, Performance, Deaf students, Geography.

Introduction

Academic achievement and motivation are critical to students' educational development, especially for learners with disabilities such as those who are deaf. In Nigeria, deaf students face barriers such as limited communication support, inadequate teaching strategies, and low classroom participation (Adebayo, 2020). Consequently, these students record persistently poor results in Geography, particularly in map reading and interpretation sections of national examinations (WAEC Chief Examiner's Report, 2018–2020). Conventional teacher-centered approaches dominate classroom instruction, often providing little opportunity for interactive or cooperative engagement. Cooperative learning, based on the principles of social constructivism, emphasizes collaboration, shared responsibility, and mutual achievement (Johnson & Johnson, 2019). Among cooperative models, the Team Games Tournament (TGT) developed by Slavin (1995) integrates learning with academic games and peer competition, promoting motivation and group accountability. Given the need for inclusive and motivating strategies in deaf education, this study examined the effect of TGT cooperative learning strategy on academic motivation and performance of deaf students in Geography in North-West, Nigeria.

Academic motivation is a vital factor that sustains students' engagement, effort, and persistence toward academic success. According to Ryan and Deci's (2020) self-determination theory, motivation can be intrinsic driven by curiosity and satisfaction or extrinsic, driven by rewards and recognition. For deaf students, classroom motivation is strengthened when they are actively involved, supported by peers, and included in meaningful group learning activities (Obiakor & Ofor, 2019). Cooperative learning provides a structured approach where students work together to achieve shared academic goals. Slavin's (1995) cooperative learning theory emphasizes positive interdependence, individual accountability, and equal opportunity for success. Within this framework, Team Games Tournament (TGT) have proven effective. Both methods require teamwork and peer tutoring but differ in application: TGT introduces competitive tournaments that add an element of excitement and motivation (Slavin, 2015; Olatoye & Adekoya, 2021). Research consistently shows that TGT improve students' academic outcomes, with TGT often producing higher motivation because of its game-based structure. Ahmad et al. (2018) and Tan et al. (2019) found that TGT promotes enthusiasm and engagement. In Nigeria, Lawal and Usman (2022) and Olatoye and Adekoya (2021) reported significant gains in motivation and achievement when students were taught through TGT. Similarly, Abubakar and Umar (2022) found that cooperative learning strategies improved the academic participation of deaf students in inclusive classrooms in Sokoto State. Internationally, Huang and Lee (2020) and Putri et al. (2022) observed that TGT enhances teamwork, retention, and motivation through cooperative competition. Overall, literature affirms that cooperative learning especially TGT enhances both cognitive and affective outcomes by combining collaboration with structured competition. For deaf learners who rely on visual interaction and peer engagement, TGT offers a stimulating, inclusive, and participatory framework for effective Geography learning.

Objectives of the Study

The objectives of the study were to:

1. Determine the effect of the Team Games Tournament (TGT) cooperative learning strategy on deaf students' academic motivation in North-West, Nigeria.
2. Determine the effect of the Team Games Tournament (TGT) cooperative learning strategy on deaf students' academic performance in North-West, Nigeria.

Research Hypotheses

The following null hypotheses were tested at 0.05 significance level:

H₀₁: There is no significant difference between pre-test and post-test academic motivation scores among deaf students taught Geography using TGT.

H₀₂: There is no significant difference between pre-test and post-test academic performance scores among deaf students taught Geography using TGT.

Methodology

A one-group pretest-posttest pre-experimental design was used for the study. This design was chosen due to the limited availability of deaf students in the region; however, the absence of a control group is a significant limitation, meaning that findings must be interpreted cautiously and causality cannot be definitively established. The population comprised all Senior Secondary II deaf students in special schools across North-West Nigeria. A total of twenty-six (26) students were purposively selected and taught using the Team Games Tournament (TGT) cooperative learning strategy. Three instruments were used: The Academic Motivation Scale (AMS) to measure intrinsic and extrinsic motivation toward Geography; the Geography Academic Performance Test (GAPT), developed by the researcher to assess understanding of map reading and related topics; and the Self-Report Hearing Loss Assessment Instrument (SRHLAI) to confirm students' hearing status. Instrument validity was confirmed by experts in Special Education and Measurement, while reliability indices ranged between 0.82 and 0.89. The TGT treatment lasted six weeks and followed Slavin's (1995) model involving class presentations, team study sessions, academic tournaments, and team recognition. Data were analyzed using paired-samples t-tests at a 0.05 significance level to compare the pre-test and post-test means, as the data originated from the same group of participants.

Results

Hypothesis One (H₀₁)

There is no significant difference between pre-test and post-test academic motivation scores among deaf students taught Geography using TGT.

Table 1: Paired-Samples t-test Results for Academic Motivation

Variable	N	Mean	SD. Dev.	df	t	P-value
Pre-test	26	73.000	12.45	25	10.029	.000
Post-test	26	120.909	14.78			

Pre-test Mean = 73.00; Post-test Mean = 120.91; $t(25) = 10.029$; $p = .000$. The results indicate a significant mean increase. Hence, H₀₁ is rejected, showing that there was a statistically significant increase in academic motivation associated with the TGT intervention.

Hypothesis Two (H₀₂)

There is no significant difference between pre-test and post-test academic performance scores among deaf students taught Geography using TGT.

Table 2: Paired-Samples t-test Results for Academic Performance

Variable	N	Mean	SD. Dev.	df	t	P
Pre-test	26	15.730	4.045	25	13.904	.000
Post-test	26	28.960	3.616			

Pre-test Mean = 15.73; Post-test Mean = 28.96; $t(25) = 13.904$; $p = .000$. The results show a significant increase from the pre-test to post-test, indicating a substantial positive shift in performance scores following the TGT intervention.

Discussion

The findings revealed a statistically significant increase in both academic motivation and performance scores following the exposure to the Team Games Tournament (TGT). The increase in motivation may be attributed to the engaging, competitive, and interactive nature of the TGT model, which raises collaboration and inclusivity. This aligns with Slavin (2015) and Johnson and Johnson (2019) who posited that cooperative learning promotes motivation through group interdependence and recognition. Recent Nigerian studies by Olawale and Adegunle (2022) and Darma and Ibrahim (2023) also found that cooperative learning strategies enhance motivation among special needs students. Similarly, Ahmad et al. (2021) in Pakistan and Huang and Lee (2020) in Taiwan reported higher motivation and engagement levels among students exposed to TGT compared to traditional instruction.

In terms of performance, the findings are consistent with Yusuf (2019), Oludipe (2017), and Umar and Bello (2021) who demonstrated that cooperative learning strategies improved students' test scores. The TGT model's structure, which blends competition and peer support, enables deeper understanding and retention of Geography concepts. For deaf students, its visual, interactive format enhances participation, communication, and comprehension.

Conclusion

The study concluded that the Team Games Tournament (TGT) cooperative learning strategy is associated with significant gains in both academic motivation and performance among deaf students in Geography. The interactive and rewarding nature of TGT encourages teamwork, self-confidence, and inclusivity in learning, making it a valuable instructional strategy for special education settings. However, given the pre-experimental nature of this design, these findings should be viewed as preliminary evidence rather than conclusive proof of effectiveness.

Recommendations

1. Teachers of deaf students should consider adopting TGT to increase engagement and achievement.
2. Curriculum planners should integrate cooperative learning strategies into special education curricula.
3. Teacher training programs should include practical exposure to cooperative learning techniques.
4. School administrators should provide resources to facilitate interactive learning environments.

References

- Abubakar, M., & Umar, S. (2022). Effect of cooperative learning strategies on academic achievement of deaf students in inclusive classrooms in Sokoto State, Nigeria. *Journal of Special Needs Education*, 8(1), 45–57.
- Adebayo, F. A. (2020). Inclusive education and challenges of teaching students with hearing impairment in Nigeria. *Journal of Special Education Studies*, 6(2), 45–59.
- Ahmad, N., Mahmood, S., & Khan, M. (2018). The impact of Team Games Tournament on students' motivation in secondary science. *Pakistan Journal of Educational Research*, 11(3), 102–115.
- Ahmad, N., Mahmood, S., & Khan, M. (2021). The impact of Team Games Tournament on students' motivation and academic achievement in secondary schools. *International Journal of Educational Research and Innovation*, 15(2), 76–88.
- Darma, S., & Ibrahim, A. (2023). Cooperative learning and classroom participation among special needs students in Northeastern Nigeria. *Nigerian Journal of Inclusive Education*, 10(1), 22–35.
- Huang, Y., & Lee, C. (2020). Effects of team-based tournaments on motivation and engagement among high school students. *Asia-Pacific Journal of Educational Research*, 3(4), 210–222.
- Johnson, D. W., & Johnson, R. T. (2019). *Learning together and alone: Cooperative, competitive, and individualistic learning* (9th ed.). Allyn & Bacon.
- Lawal, M., & Usman, A. (2022). Cooperative learning and motivation of deaf students in Kaduna State, Nigeria. *Nigerian Journal of Special Education*, 9(1), 33–45.
- Obiakor, F. E., & Offor, M. T. (2019). Inclusive education and peer-supported learning for deaf learners in developing contexts. *International Journal of Disability and Education*, 12(2), 88–101.
- Olawale, T., & Adekunle, O. (2022). Cooperative learning strategies and student engagement in Nigerian special schools. *Journal of Educational Psychology in Africa*, 14(3), 67–78.
- Olatoye, R. A., & Adekoya, O. A. (2021). Influence of cooperative learning strategies on students' learning motivation in secondary schools. *Journal of Education and Practice*, 12(3), 55–63.
- Oludipe, D. I. (2017). Effect of cooperative learning on students' performance in science subjects in Nigerian secondary schools. *African Journal of Educational Research and Development*, 11(3), 102–113.
- Putri, R., Sari, M., & Utomo, H. (2022). Team Games Tournament and student retention in geography education. *Southeast Asian Journal of Educational Research*, 9(2), 144–155.
- Ryan, R. M., & Deci, E. L. (2020). Self-determination theory and the facilitation of intrinsic motivation. *American Psychologist*, 75(5), 612–625.
- Slavin, R. E. (1995). *Cooperative learning: Theory, research, and practice* (2nd ed.). Allyn & Bacon.
- Slavin, R. E. (2015). Cooperative learning in elementary and secondary schools. *International Journal of Educational Research*, 76(1), 177–185.
- Tan, K., Lim, J., & Ng, P. (2019). Game-based cooperative learning and academic engagement in Asian classrooms. *Journal of Educational Technology*, 21(4), 310–325.

- Umar, M., & Bello, H. (2021). Effect of Team Games Tournament on Geography achievement of senior secondary students in Katsina State, Nigeria. *Journal of Science and Education Research*, 7(2), 67–75.
- WAEC Chief Examiner's Report. (2018–2020). West African Examinations Council Annual Reports. WAEC Press.
- Yusuf, M. O. (2019). Impact of cooperative learning strategies on academic achievement and retention among secondary school students. *Nigerian Journal of Educational Psychology*, 23(2), 89–103.