

Effect of Team Achievement Division Strategy on Academic Achievement of Guidance and Counselling Students in Anambra State, Nigeria

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Abstract

This study examines the effects of implementing the Students' Team Achievement Division (STAD) cooperative learning strategy on academic achievement in guidance and counseling among tertiary education students in Anambra State, Nigeria. A quasi-experimental pretest-posttest control group design was used to compare the STAD strategy to conventional expository teaching methods. The sample consisted of 67 second-year students (14 male, 53 female) enrolled in the guidance and counseling program at Nnamdi Azikwe University. Students were non-randomly assigned to either the experimental group (n = 34; 7 male, 27 female) that received instruction using STAD or the control group (n = 33; 7 male, 26 female) taught via traditional lecture. Both groups completed a 40-item guidance and counseling achievement pretest. For six weeks, the experimental group utilized STAD during daily lessons while the control group received conventional lecture. Following the intervention period, both groups completed the identical posttest. Independent samples t-tests revealed no pretest score differences but significant posttest score increases for the experimental group compared to the control, indicating STAD positively impacted academic achievement. These findings suggest incorporating STAD cooperative learning into guidance and counseling instruction may enhance student performance outcomes by promoting collaborative learning and individual accountability. Further research is needed to replicate these results across different student populations, cultural contexts, and higher education settings.

Keywords: Students Team Achievement Division, Academic Achievement, Guidance and Counselling, Conventional teaching.

Introduction

Education is universally acknowledged as a fundamental human entitlement, an avenue to enlightenment, a means to attain prosperity and influence, and an indispensable element of both personal and national progress. It constitutes a structured journey wherein individuals, whether children or adults, acquire knowledge, practical wisdom, proficiency, and commendable values. Education plays a pivotal role in molding individuals into refined, cultured, and socially adept members of society. However, to realize its full potential and objectives, education requires supplementary support services, among which guidance and counseling stand paramount.

Guidance and counseling holds a unique and significant role in human development. In Nigeria, it assumes a central position in the educational advancement of its citizens. It is a professional domain aimed at assisting individuals of all ages and backgrounds. Importantly, guidance and counseling extends beyond the confines of the educational system. Its necessity is evident in settings such as hospitals, workplaces, correctional centers, churches, rehabilitation facilities, families, internally displaced persons (IDP) camps, and other areas where people reside. Therefore, Nigeria is in urgent need of counselors due to the economic and political challenges facing the nation. Many families experience destabilization and disorganization resulting from internal circumstances such as kidnapping, assassinations, economic recession, Boko Haram activities, and a notable increase in suicide cases.

According to Olorungbemi (2013), guidance and counseling represents a specialized area of training aimed at fostering individuals' self-awareness and fulfillment in life. Similarly, Nwachuku (2009) previously characterized guidance and counseling as a formal and systematic process of structured services provided within the educational system. Its purpose is to assist individuals in recognizing and maximizing their potential, thereby cultivating self-awareness, understanding of one's circumstances, and the skills necessary for self-evaluation in various contexts. This includes making informed decisions and taking appropriate actions within the realms of education, employment, and society. Nwachuku's definition comprehensively encapsulates the essence, roles, objectives, and pertinent aspects essential for understanding the significance of guidance and counseling in contemporary Nigeria. In a society where individuals are increasingly required to be accountable for their decisions and actions, Nwachuku's definition is therefore pragmatically embraced in this study.

In Nigeria, the initiation of structured guidance and counseling programs began in the late 1950s within the school framework. This endeavor was catalyzed by several Reverend Sisters who served as educators at St. Theresa's College, Oke-Ado in Ibadan. They extended invitations to various individuals to engage in discussions with graduating girls at the institution. What initially commenced as an internal initiative has since proliferated nationwide. Currently, its application extends beyond educational institutions to encompass diverse settings where individuals exist. Recognized as an educational service, the significance of guidance and counseling in the education and rehabilitation of individuals cannot be overstated.

In accordance with the guidelines set forth by the Federal Republic of Nigeria (2014), educational services play a crucial role in facilitating the implementation of educational policies, the achievement of policy objectives, and the enhancement of the effectiveness of the educational system. The provision of guidance and counseling services contributes significantly to these objectives. During the process of institutional accreditation by the National University Commission (NUC), particular emphasis is placed on the presence of a functional guidance and counseling unit within educational institutions. This requirement aligns with the policy statement outlined in the Federal Republic of Nigeria (2014:41), which emphasizes the appointment of career officers and counselors to address issues related to personality maladjustment among school children. It is evident that Nigeria recognizes the importance of the services offered by guidance and counseling within the country.

Considering the range of services provided by guidance and counseling, it can be observed that it comprises various interconnected services. While it operates as a unified program, it encompasses multiple service domains. According to Alutu (2007), Egbule (2009), Adamu and Mora (2010), Ekpo (2011), and Awoyemi (2013), the diverse array of services offered by guidance and counseling includes: information provision, assessment, placement assistance, orientation guidance, counseling support, referral facilitation, follow-up guidance, educational guidance, vocational support, personal-social assistance, and community outreach. These services are delivered by professional counselors in any setting they operate, serving the interests of recipients and the wider community.

Given the diversity of services provided, counselors are inclined to utilize various teaching methods or strategies. Naturally, different instructional strategies can yield diverse educational outcomes, and instructors can select the strategy best suited to the specific service being provided. While a particular strategy may excel over another for a specific purpose, it's important to recognize that a singular strategy may not universally apply to all students or to the implementation of guidance and counseling services. Therefore, the choice of strategies should align with the characteristics of the student population and the particular subject matter, as emphasized by Erdem (2012).

The selection of strategies and tactics depends on the chosen learning activities, and thus, the key to effective teaching lies in eliciting the desired learning outcomes in students by choosing

appropriate strategies and tactics, as highlighted by Clark and Starr (2001). To maximize student achievement, an innovative strategy is required. At this juncture, one such strategy that comes to mind is Students' Team Achievement Divisions (STAD), a type of Cooperative Learning (CL) strategy where a small group of students with varying ability levels collaborates to achieve a common learning objective (Slavin, 2009). Developed by Robert Slavin and his team in 2009 at Johns Hopkins University, STAD involves assigning students to four- or five-member learning teams that are diverse in terms of performance level, gender, and ethnicity. This approach can foster cohesion within the learning group and enhance achievement in guidance and counseling by promoting conceptual understanding and communication, as noted by Silbermann (2006).

One of the learning systems currently available is the Cooperative Learning system. As outlined by Johnson and Johnson (2009), Cooperative Learning is characterized as a group learning activity structured around the idea that learning should evolve through the exchange of social information among participants. Members of the group are expected to take ownership of their learning and are motivated to enhance the learning of their peers. The focus of this discussion is primarily on STAD. As per Cohen, Manion, and Morrison (2007), Student Team Achievement Division (STAD) is a method wherein students collaborate in small groups, ensuring each member's participation in an assigned group task. Two key aspects set STAD apart from conventional group work: (a) positive interdependence, wherein students recognize that achieving their group objective requires collective effort from all team members, and (b) individual accountability, where each group member bears responsibility for their own performance.

As suggested by research findings (Arnas, Sutarjo, & Fajarianto, 2022), students using the STAD method during their learning process demonstrated superior learning outcomes compared to students employing the expository method. Arnas, Sutarjo, and Fajarianto also observed that in Indonesia, there is a focus on teacher development, particularly in discussing suitable learning systems for classroom use.

The integration of the STAD strategy in guidance and counseling presents numerous potential advantages. Primarily, it stimulates active learning and student involvement by promoting peer interaction, collaboration, and discourse (Anaduaka, Olaoye, & Sunday, 2021). Additionally, the STAD strategy cultivates a sense of accountability and responsibility among team members,

as the contribution of each student significantly influences the overall success of the team (Johnson et al., 2009).

Empirical research has highlighted the efficacy of the STAD strategy in enhancing student academic performance within schools. A study conducted by Amin, Tamang, and Khan (2023) revealed that students instructed through the STAD approach exhibited notably higher academic achievements compared to those in traditional lecture-based environments. Similarly, findings from research by Aliyu (2019) indicated that students instructed using the STAD strategy attained superior grades in examinations compared to those taught through conventional methods. These studies underscore the positive impact of the STAD strategy, attributed to its collaborative learning environment, individual accountability, and shared rewards, on academic accomplishments in educational settings.

Beyond academic achievement, the STAD strategy also influences students' perceptions of learning materials positively. Research conducted by Asnan (2018) discovered that students taught using the STAD approach reported increased enjoyment of the subject matter, enhanced self-efficacy, and improved attitudes toward teamwork and collaboration. Similarly, Ling, Ghazali, and Raman (2016) investigated the application of the STAD cooperative learning model on student learning outcomes and found that students' achievements using the STAD cooperative learning model were notably high. Thus, there exists a significant positive influence stemming from the utilization of the Students' Team Achievement Division (STAD) cooperative learning model on students' learning outcomes.

The conventional expository teaching method employed in guiding and counseling instruction often falls short in effectively engaging students and promoting a profound comprehension of the subject's intricate concepts. This deficiency in engagement and comprehension may result in diminished academic performance, unfavorable perceptions among students regarding the course, and a lack of motivation to pursue further studies in the field. To address this issue through meaningful student engagement, the Students' Team Achievement Division strategy (STAD) emerges as a potential solution. Therefore, the study aimed at finding out the effect of STAD strategy on the academic performance of guidance and counseling students in tertiary institutions in Anambra State.

Research Question

What are the mean academic achievement scores of students in guidance and counselling when exposed to the Students Team Achievement Division (STAD) strategy and expository teaching method?

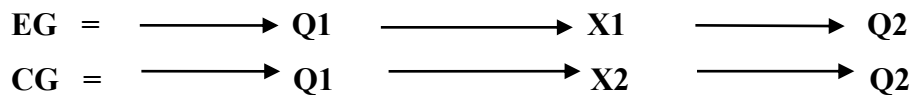
Research Hypothesis

H₀₁: There is no significant difference in the mean of academic achievement scores of students taught guidance and counselling using the Students Team Achievement Division (STAD) and those taught with expository teaching method.

Methodology

The study utilized a quasi-experimental design that incorporated pre-tests and post-tests. At the start of the study, a pre-test was given to both groups to establish the initial equivalence between the two in terms of ability. After six weeks of different teaching methods, a post-test was administered to both groups to evaluate the impact of the strategies on enhancing students' academic achievement in guidance and counseling. The experimental group learned via the STAD strategy while the control group was taught using expository teaching, both over six consecutive weeks. This design involved the pre-test, different teaching methods for six weeks, and post-test to evaluate the effects of the treatments.

This design is illustrated as follows:



Key: EG = Experimental Group, CG = Control Group, Q1 = Pre-test, Q2 = Post-test
X1 = Treatment (Students Team Achievement Division Strategy)
X2 = No treatment (Expository Teaching Method)

The study population consisted of 67 total participants, including 14 males and 53 females. They were all second year students in the Guidance and Counseling Department at Nnamdi Azikwe University in Awka. Since the population size was not too large, no sampling was required. Of the 67 students, 7 males and 26 females were assigned to the control group, while the remaining 7 males and 27 females comprised the experimental group. Both the control and experimental groups took pre-tests and post-tests. All students in the intact class participated in the study regardless of

ability level. Those in the experimental group were taught guidance and counseling using the STAD strategy for six weeks, while the control class received instruction through expository teaching over the same time period.

The Guidance and Counselling Achievement Test (GCAT) also contained two sections - section A for general student information, and section B with multiple choice questions. Section B consisted of 40 items with options A, B, C, and D. The questions were carefully selected from topics covered in the second year guidance and counseling syllabus, with at least 8 questions drawn from each topic to make a total of 40 items. Students had to choose the correct answer. Each question was worth 2.5 marks, with 40 questions worth a total of 100 marks. The GCAT was a multiple choice test with 40 questions in A-D format to measure student academic achievement, with each question worth 2.5 marks for both the pre-test and post-test. The study data was analyzed using descriptive statistics (mean and standard deviation) to address the research question, and inferential statistics (independent t-test) at an alpha level of 0.05 to test the hypotheses, using SPSS version 26.

Results

Research Question: What are the mean academic achievement scores of students in guidance and counselling when exposed to the Students Team Achievement Division (STAD) strategy and expository teaching method?

Table 1: Analysis of the Pre-test and Post-test Mean academic achievement scores of students in guidance and counselling when exposed to the Students Team Achievement Division (STAD) strategy and expository teaching method.

Groups	Pre-Test		Post-Test	
	Mean	SD	Mean	SD
Experimental	25.42	6.899	75.08	14.762
Control	25.41	8.638	26.89	10.005

Table 1 shows the analysis of pre-test and post-test mean scores and their corresponding standard deviations for the experimental and control groups. For the experimental group, the mean pre-test score was 25.42 with a standard deviation of 6.899, while the mean post-test score was 75.08 with a standard deviation of 14.762. This suggests a substantial increase in scores from pre-test to post-test for the experimental group, indicating a positive effect of using STAD for teaching guidance and counseling. In comparison, the control group had a mean pre-test score of 25.41 and standard deviation of 8.638, while the mean post-test score was 26.89 with a standard deviation of 10.005. The minimal change in scores for the control group implies that any observed changes in the

experimental group could be attributed to the specific STAD intervention introduced rather than natural variability. Therefore, the table provides a detailed comparison of pre-test and post-test performance between groups, allowing for evaluation of the STAD intervention's positive impact.

Research Hypothesis (H₀): There is no significant difference in the mean of academic achievement scores of students taught guidance and counselling using the Students Team Achievement Division (STAD) and those taught with expository teaching method.

Table 2: Independent Sample t-test on the Effect of STAD on Students' Academic Achievement in Guidance and Counselling

Pre-Test						
Group	N	Mean	SD	DF	T	p-value
Control	33	25.41	8.638	210	-0.015	0.988
Experimental	34	25.42	6.899			
Post-Test						
Control	33	26.89	10.005	210	-27.223	0.000
Experimental	34	75.08	14.762			

Table 2 shows the pre-test mean score for the control group (N=33) was 25.41 with a standard deviation of 8.638, while the experimental group (N=34) had a similar mean score of 25.42 but a lower standard deviation of 6.899. The independent t-test yielded a non-significant t-value of -0.015 with 210 degrees of freedom and a p-value of 0.988, indicating no significant difference between the pre-test scores of the two groups. This supported the null hypothesis. For the post-test, the control group had a mean of 26.89 and standard deviation of 10.005, while the experimental group demonstrated a considerably higher mean of 75.08 and standard deviation of 14.762. The independent t-test revealed a highly significant t-value of -27.223 with 210 degrees of freedom and an extremely low p-value of 0.000, suggesting the post-test scores between the groups were statistically different. This indicates the STAD method had a substantial positive effect on academic achievement, supporting the alternative hypothesis.

Discussion of Results

This study examined the impact of using the Students Team Achievement Division (STAD) strategy compared to expository teaching for teaching guidance and counseling. Descriptive statistics were used to analyze data from questionnaires, while inferential statistics (t-tests) were employed to analyze hypotheses. To address the research question about differences in mean

academic achievement scores between STAD and expository teaching, pre-test and post-test results for the experimental and control groups were compared. Table 1 showed a significant increase in post-test scores for the group using STAD, indicating a positive effect of this strategy. Table 2 provided additional support through an independent samples t-test, revealing a highly significant difference in post-test scores between the STAD and expository teaching groups. The study provided strong evidence backing the effectiveness of the STAD strategy for boosting academic achievement in guidance and counseling. This is especially seen in the highly significant disparities found between the post-test scores of the experimental and control groups. The results offer valuable perspectives on impactful teaching methods for guidance and counseling by demonstrating the STAD strategy's ability to improve learning outcomes compared to expository teaching alone.

Conclusion

The research aimed to assess the impact of implementing the Students Team Achievement Division (STAD) strategy on academic achievement in guidance and counseling, comparing it to the traditional expository teaching method. Through descriptive and inferential statistical analyses, the findings consistently indicated the effectiveness of the STAD strategy in improving students' comprehension of guidance and counseling concepts. The significant rise in post-test scores observed in the experimental group contrasted with minimal changes in the control group, highlighting the beneficial impact of the STAD strategy.

Recommendations

1. Given the significant impact of the Students Team Achievement Division (STAD) strategy on students' academic achievement in guidance and counseling, counselors are encouraged to integrate this strategy into their teaching methods to enhance student performance in the course.
2. The Ministry of Education should promote the adoption of the Students Team Achievement Division (STAD) strategy among counselors in schools as a method to teach guidance and counseling effectively.
3. The Guidance and Counseling Curriculum Development (MCD) should incorporate the integration of the Students' Team Achievement Division (STAD) strategy into the curriculum design for teaching guidance and counseling.
4. Authors of textbooks in guidance and counseling are urged to highlight the importance of utilizing the STAD strategy in teaching guidance and counseling within tertiary institutions.

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