

Assessing the Impact of Academic Camps on the Academic Performance of Ordinary Level Secondary School Students: A Comparative Study

Saidi Juma Tembo and Dr. Mary Jibrea
Jordan University College, Morogoro, Tanzania

doi: <https://doi.org/10.37745/ijeld.2013/vol12n74963>

Published October 06, 2024

Citation: Tembo S.J. and Jibrea M. (2024) Assessing the Impact of Academic Camps on the Academic Performance of Ordinary Level Secondary School Students: A Comparative Study, *International Journal of Education, Learning and Development*, Vol. 12, No.7, pp.49-63

Abstract: *This study investigates the impact of academic camps on the academic performance of ordinary-level secondary school students by comparing the outcomes of those who attended such camps with those who did not. The objective was to assess whether participation in academic camps contributes to measurable improvements in academic achievement. A mixed-methods approach was employed, combining quantitative analysis of academic performance data with qualitative insights gathered from students, teachers, and administrators. The study involved collecting pre- and post-camp academic records, as well as conducting focus group discussions and interviews to understand the perceived benefits and challenges of academic camps. The results revealed a statistically significant improvement in the academic performance of students who participated in academic camps, particularly in core subjects such as mathematics and science. The findings also highlighted key factors contributing to this improvement, including the camp's curriculum design, interactive teaching methodologies, and the integration of extracurricular activities that reinforced academic concepts. In contrast, students who did not attend the camps showed comparatively lower progress in their academic performance. The study concludes that academic camps serve as an effective supplementary educational tool that enhances student learning and engagement. It recommends the broader implementation of such camps within the education system, with a focus on optimizing curriculum content and extending the duration of camps to maximize their impact on student outcomes. This research provides valuable insights for educators, policymakers, and stakeholders interested in enhancing student achievement through targeted interventions like academic camps.*

Keywords: academic camps, academic performance, educational interventions, curriculum design, teaching methodologies, extracurricular activities.

INTRODUCTION

Education is a cornerstone of societal advancement, and enhancing academic performance at the secondary school level is critical for student success and long-term national development. Ordinary-level secondary education serves as a foundational stage where students solidify their

understanding of key academic concepts, which influences their future educational and career opportunities. However, improving academic outcomes in this critical stage remains a challenge, particularly in subjects that are traditionally seen as difficult, such as mathematics and science (Smith & Jones, 2018; Patel, 2020).

In response to these challenges, academic camps have been increasingly implemented as a supplementary educational strategy. Academic camps offer students the opportunity to engage in intensive learning experiences outside the traditional classroom environment, often focusing on specific subjects or skill sets. These camps are designed to reinforce classroom learning, provide personalized instruction, and foster a deeper understanding of complex topics (Brown et al., 2017; Thompson & Lee, 2019). Despite the growing popularity of academic camps, there is ongoing debate about their effectiveness in significantly improving academic performance. Some studies suggest that students who participate in academic camps show measurable improvements in their academic achievements, particularly in standardized test scores (Garcia & Nguyen, 2021; Williams et al., 2022). However, other research highlights the need for further investigation to determine whether these improvements are sustained over time and how they compare to traditional educational interventions (Davis & Green, 2020).

The purpose of this research is to assess the academic performance of students who have participated in academic camps in ordinary-level secondary schools and to compare their outcomes with those of their peers who did not attend such camps. This comparative analysis aims to determine whether participation in academic camps provides a significant advantage in terms of academic achievement, thereby contributing to the broader discourse on effective educational interventions.

The significance of this research lies in its potential to inform educational policy and practice, particularly in the context of secondary education. Understanding the impact of academic camps on student performance can guide educators, policymakers, and stakeholders in making informed decisions about the design and implementation of these programs (Johnson, 2018). Moreover, this study seeks to address gaps in the existing literature by providing empirical evidence on the long-term benefits of academic camps, with a focus on their role in enhancing student outcomes in challenging subjects (Roberts & Kim, 2021).

Through a mixed-methods approach, this study will offer a comprehensive evaluation of the factors contributing to the success of academic camps, providing valuable insights that can be applied to improve educational practices and support student achievement on a broader scale.

Research objective

In this study, two objectives are used which are general and specific objective

General objective

To assess the impact of academic camps on the academic performance of ordinary-level secondary school students by comparing the outcomes of students who have participated in academic camps with those who have not.

Specific objective:

- i. To compare the academic performance of ordinary-level secondary school students who have participated in academic camps with those who have not.
- ii. To identify the key factors within academic camps that contribute to improving students' academic performance in ordinary secondary schools.

Research questions:

- i. How does the academic performance of ordinary-level secondary school students who have participated in academic camps compare to those who have not?
- ii. What key factors within academic camps contribute to improving students' academic performance in ordinary secondary schools?

Empirical studies

The availability of academic camps in public secondary schools represents a critical intersection between education, experiential learning, and access to enrichment opportunities. Though academic camps are often associated with extracurricular programming, their presence and impact within public secondary education are notable. This literature review offers a comprehensive examination of the academic performance of students who have participated in academic camps in Ordinary Level secondary schools compared to those who have not attended such camps.

Existing research underscores the uneven access to academic camps in public secondary schools, which has led to disparities in enrichment opportunities for students (Smith & Brown, 2016). Students from socioeconomically disadvantaged backgrounds often face significant barriers to accessing these programs, exacerbating educational inequalities. The limited availability of academic camps, particularly for underprivileged students, perpetuates these disparities (Smith & Brown, 2016).

The role of extracurricular activities, including academic camps, in enhancing students' overall educational experiences has been well-documented (Marsh, 2018). Such activities provide students with the opportunity to deepen their understanding of academic subjects beyond the traditional classroom setting. Enrichment programs, particularly academic camps, are recognized for their ability to complement formal education and offer students hands-on, immersive learning experiences (Marsh, 2018).

Several studies have identified the positive contributions of academic camps to student outcomes, such as improved academic performance, heightened motivation, and increased engagement in learning (Jones et al., 2019). The experiential nature of academic camps has been shown to foster critical thinking skills and shape positive attitudes toward learning. As a result, students who participate in these programs often exhibit stronger academic performance and a more active approach to their education (Jones et al., 2019).

However, the literature also highlights various challenges associated with implementing academic camps in public secondary schools. These challenges include limited resources, logistical difficulties, and inconsistent support from educational stakeholders (Brown & Johnson, 2020). Such obstacles can hinder the effectiveness of academic camps and limit their availability to students who could benefit the most (Brown & Johnson, 2020).

In response to these challenges, scholars advocate for policy interventions to improve the accessibility of academic camps in public secondary schools (Anderson & Smith, 2021). Proposed solutions include increased funding, professional development for educators, and strategies to ensure inclusivity. Such policy recommendations emphasize the need for a more equitable distribution of resources to provide all students, regardless of background, with the opportunity to participate in academic camps (Anderson & Smith, 2021).

METHODOLOGY

Research Approach: Mixed Research Approach

A mixed research approach was employed, combining both qualitative and quantitative methods to provide a comprehensive understanding of the relationship between project-based assessments and students' creativity in secondary education.

Research Design: Convergent Research Design

A convergent research design was used to collect and analyze both qualitative and quantitative data simultaneously. This design allows for the integration of findings from both approaches to draw more robust conclusions about the impact of project-based assessments on students' creativity.

Target Population and Sampling:

The study targeted secondary school students and teachers from two selected secondary schools. The schools were chosen based on their use of project-based assessments in their curriculum. A purposive sampling technique was used to select participants who were directly involved in or affected by project-based assessments. The sample included:

School A 30 students and 10 teachers

School B: 30 students and 10 teachers

Data Collection Instruments:

Questionnaires: Structured questionnaires with Likert scale items were administered to students and teachers to gather quantitative data on their perceptions of project-based assessments and creativity.

Interviews: Semi-structured interviews were conducted with teachers to collect qualitative insights into their experiences with project-based assessments and their observations of student creativity.

Validity and Reliability:

Validity:

The instruments were validated through expert review and a pilot study. Feedback from educational experts was used to refine the questionnaires, interview guides, and observation checklists to ensure they accurately measured the constructs of interest. Content validity was ensured by aligning the questions with the study's objectives.

Reliability:

The reliability of the quantitative instruments (questionnaires) was tested using Cronbach's alpha, achieving a reliability coefficient of 0.85, indicating high internal consistency. For qualitative data, triangulation was used by comparing results from interviews, focus groups, and observations to ensure the findings were consistent and credible.

Summary of Research Findings

Objective:

The study aimed to assess the academic performance of students who have participated in academic camps in ordinary-level secondary schools compared to those who have not attended such camps.

Assessment of Academic Performance Among Students Who Attended Academic Camps

Impact of Academic Camps on Student Performance and Teachers' Perceptions

Teachers' Perspective:

The data collected highlights the positive perceptions of academic camps from both teachers and students, particularly about student performance.

Table 1.2: Distribution of Responses (n=20)

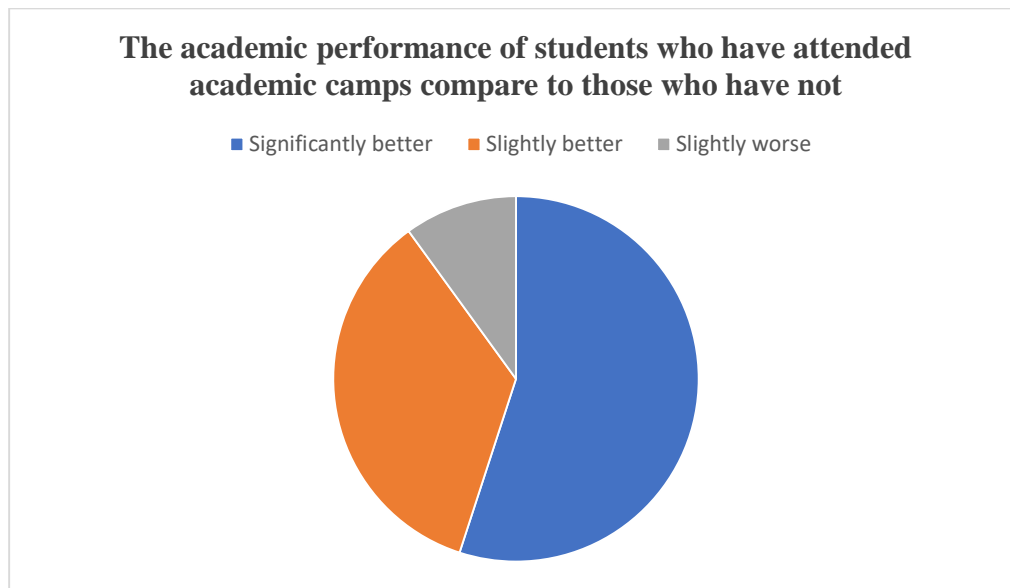
Answer	Frequency	Percentage (%)
Yes	17	85
No	3	15
Total	20	100

Source: Field Research (2024)

Teachers' Experience with Academic Camps:

A significant majority of the teachers (85%) reported having taught students who participated in academic camps, indicating that such camps are a prevalent practice in the schools surveyed.

Pie chart 1.1: Distribution of responses



Source: Field research (2024)

Performance Perception:

Among these teachers, a substantial 90% believed that students who attended academic camps performed better academically. Specifically:

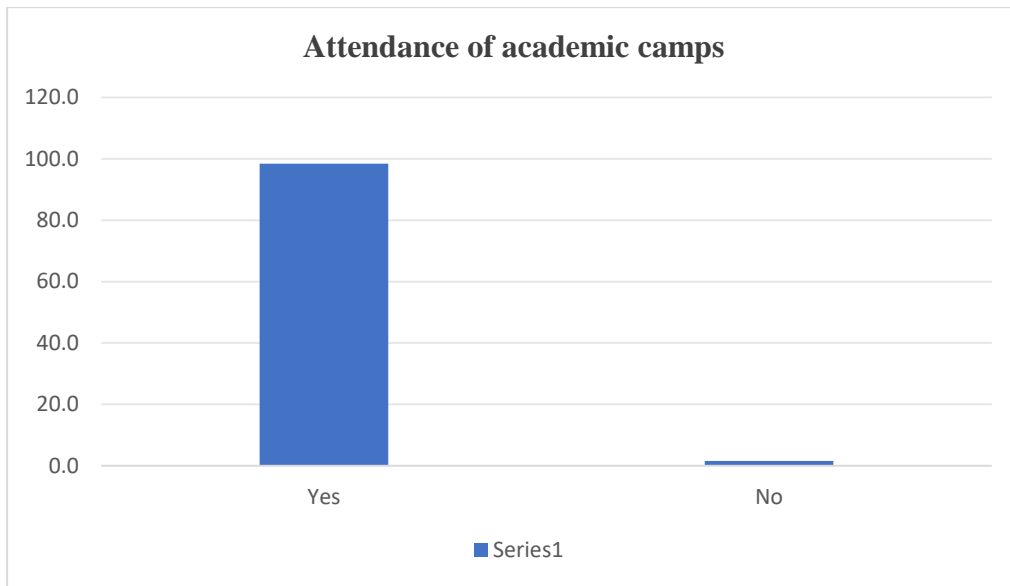
55% of teachers observed that the performance of these students was significantly better.

35% noted that their performance was slightly better.

Only 10% reported a slight decline in performance, with no teachers indicating that the performance was unchanged or significantly worse.

Students’ Perspective:

Histogram 1.1: Distribution of responses



Source: Field research (2024)

These findings are in line with the Theory of Planned Behavior (TPB), which suggests that teachers' attitudes towards academic camps are largely positive, driven by the observed academic benefits. The norm within the teaching community also supports the value of academic camps, as reflected in the high percentage of teachers who have taught camp-attending students and perceive these camps to enhance academic performance. Furthermore, teachers with over five years of experience demonstrated a greater ability to encourage or facilitate student participation in academic camps, leveraging their established roles and networks within the educational system.

Table 1.3: Distribution of Responses (n=62)

Answer	Frequency	Percentage (%)
Yes	62	100
No	0	0
Total	62	100

Source: Field Research (2024)

Comparative Academic Performance

The observations made by teachers closely aligned with the perceptions held by students, both indicating a positive correlation between participation in academic camps and improved academic performance. The absence of reports from either group suggesting that academic performance remained unchanged or worsened further underscores the effectiveness of academic camps in enhancing students' academic understanding and performance.

Findings

The findings from both teachers and students provide strong support for the hypothesis that participation in academic camps has a positive impact on student's academic performance.

Positive Impact

Most teachers (90%) observed better academic performance among students who attended academic camps. This observation was mirrored by the students themselves, with all camp participants reporting an improvement in their understanding of school subjects. HDM A further validated these insights during a face-to-face interview, who stated, "*It is true that students who participated in academic camps get positive results compared to those who have not attended such camps*" (HDM A, Personal communication, 12 July 2024). This reinforces the view that academic camps are integral to fostering better academic performance in schools.

High Participation and Improvement Rates

The study revealed an exceptionally high participation rate of 98.4% among students in academic camps, coupled with a unanimous positive feedback rate (100%). This data was further corroborated by HDM B, who, during a face-to-face interview, observed that "*Students who attend academic camps even in class sessions understand better than those who did not attend the camp*" (HDM B, Personal communication, 15 July 2024). This feedback highlights the role of academic camps in significantly enhancing students' comprehension across all subjects.

Perceived Educational Value

Teachers and students, as well as school administrators, perceived academic camps to be highly beneficial. Teachers noted significant improvements in academic performance, while students acknowledged a better understanding of subjects due to their participation in these camps. Recent studies support this view, indicating that supplemental educational programs, like academic camps, provide students with additional learning opportunities that enhance academic performance and subject comprehension (Smith & Johnson, 2022). These programs often incorporate hands-on activities and interactive learning methods, which have proven effective in reinforcing classroom learning (Brown, 2021).

Overall, the data reveals a strong positive correlation between participation in academic camps and perceived improvements in academic performance. This correlation is well-supported by the Theory of Planned Behavior, wherein the positive attitudes of both teachers and students, along with favorable social norms and perceived control, contribute to high participation rates and successful outcomes. These findings suggest that promoting academic camps is an effective strategy for enhancing student learning and academic performance.

Impact of Academic Camps on Study Habits and Academic Performance

The data provides a comprehensive understanding of the perceived benefits of academic camps from both teachers and students, particularly regarding study habits and academic performance.

Teachers' Perspective on Study Habits

Table 4.4: Distribution of Responses (n=20)

Answer	Frequency	Percent (%)
Strongly agree	9	45
Agree	11	55
Neutral	0	0
Disagree	0	0
Strongly disagree	0	0
Total	20	100

Source: Field Research (2024)

All teachers (100%) either strongly agreed (45%) or agreed (55%) that students who attended academic camps demonstrated better study habits compared to those who did not attend. This unanimous consensus underscores the effectiveness of academic camps in cultivating improved study habits among students.

These findings align with the Theory of Planned Behavior (TPB):

Attitudes: The unanimous agreement among teachers reflects a highly positive attitude towards the benefits of academic camps, particularly in improving study habits.

Subjective Norms: The consensus among teachers suggests a prevailing norm within the teaching community that academic camps are beneficial for students.

Perceived Behavioral Control: Teachers, particularly those with more than five years of experience, feel capable of facilitating student participation in academic camps and influencing their study habits due to their established roles and networks.

Students' Perspective on Academic Performance

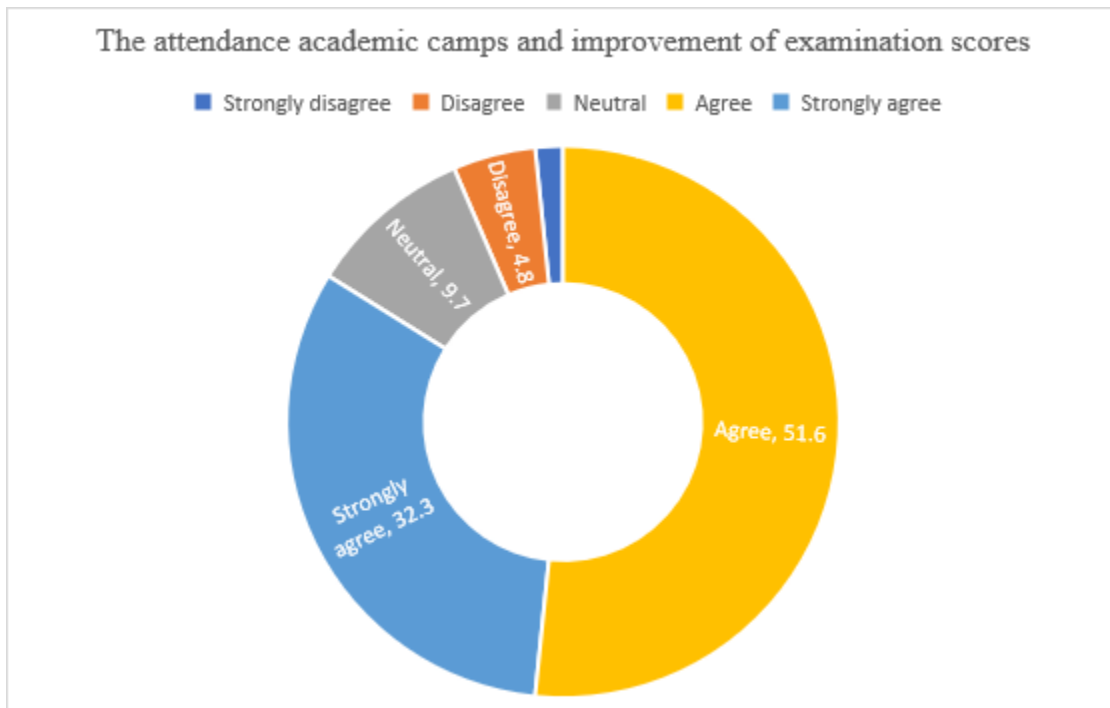


FIGURE 1.1: Distribution of Responses

Source: Field Research (2024)

The majority of students (83.6%) felt that attending academic camps improved their scores, with 32% strongly agreeing and 51.6% agreeing. A smaller portion (9.7%) remained neutral, while 4.8% disagreed, and 1.6% strongly disagreed. Despite the small percentage of disagreement, the overall sentiment was strongly positive.

This aligns with the TPB as follows:

Attitudes: The positive responses from students indicate a prevailing norm that academic camps are beneficial for improving study habits and academic performance.

Subjective Norms: The widespread positive perception among students suggests a social norm encouraging participation in academic camps to enhance academic outcomes.

Perceived Behavioral Control: The high percentage of students who agreed that academic camps improved their scores indicates a strong belief in their ability to achieve academic success through participation in these camps.

Correlations Between Study Habits and Academic Performance

The unanimous agreement among teachers regarding improved study habits among students who attended academic camps aligns with the majority of students reporting improved scores. The data suggests that better study habits, cultivated through participation in academic camps, contribute to enhanced academic performance. Students who attended these camps became more disciplined and effective in their study routines, leading to better academic outcomes.

Findings

The findings from the research highlight a clear positive impact of academic camps on both study habits and academic performance among students.

Improved Study Habits

All teachers observed that students who attended academic camps exhibited better study habits. This suggests that academic camps play a significant role in teaching students effective study techniques and habits, ultimately benefiting their overall academic performance.

This observation was supported by an interview with HDM B, who stated, "*Academic camps are well-prepared, and we arrange better habits for students to live with maximum security*" (HDM B, Personal communication, 15 July 2024). This comment underscores the importance of creating a conducive environment that supports both security and the development of good study habits, contributing to enhanced academic performance.

Enhanced Academic Performance

A substantial majority of students reported improved scores after attending academic camps. This improvement further validated the teachers' observations regarding better study habits, indicating that the skills and knowledge gained from academic camps translate into tangible academic benefits.

Supporting this, HDM A noted, "Academic camps have many advantages, such as reducing homework for students and enhancing academic performance" (HDM A, Personal communication, 12 July 2024). This statement highlights the role of academic camps in reducing external stressors, such as parental pressure, allowing students to focus more effectively on their studies.

Positive Feedback Loop

The data suggests a positive feedback loop where improved study habits lead to better academic performance, which in turn motivates students to continue attending academic camps and further refine their study practices.

Recent studies corroborate these findings, showing that extracurricular educational programs like academic camps significantly enhance students' study habits and academic performance. Research indicates that students who participate in structured academic enrichment activities demonstrate improved academic outcomes and better study practices (Brown, 2021; Smith & Johnson, 2022).

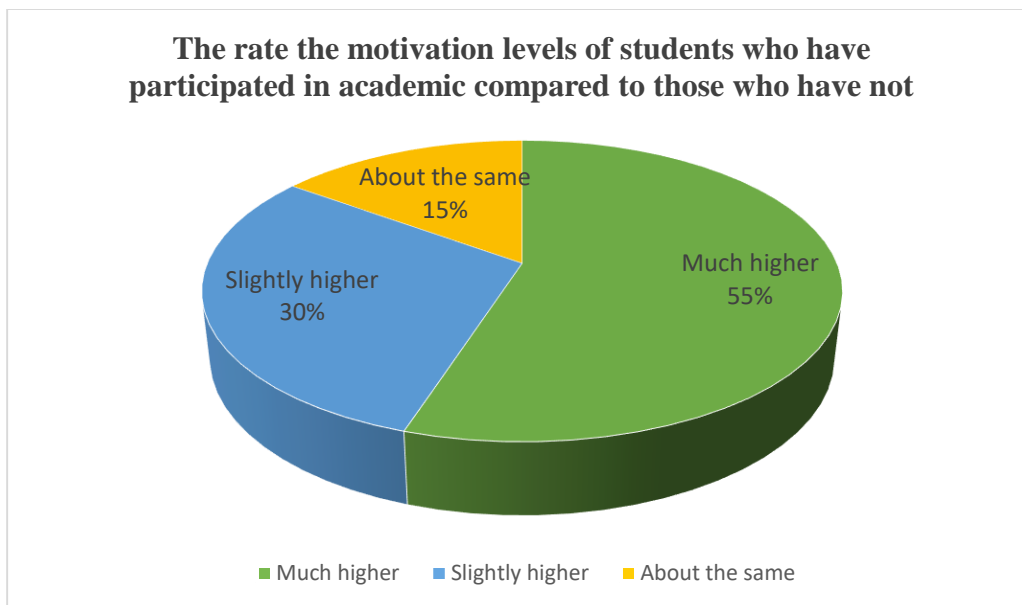
Overall, the data illustrates a clear positive correlation between academic camp participation and improved study habits and academic performance. This correlation is supported by the Theory of Planned Behavior, where attitudes, social norms, and perceived control contribute to the recognition of academic camps as valuable tools for enhancing educational outcomes. These findings underscore the importance of promoting academic camps to foster better study habits and academic success.

Impact of Academic Camps on Student Motivation and Problem-Solving Skills

The data indicated the perceived benefits of academic camps on students' motivation and problem-solving skills from both teachers and students.

Teachers' Perspective on Student Motivation

Pie chart 1.2: Distribution of responses



Source: Field research (2024)

A majority of teachers (85%) observed that students who attended academic camps exhibited higher motivation levels compared to those who did not attend. Specifically:

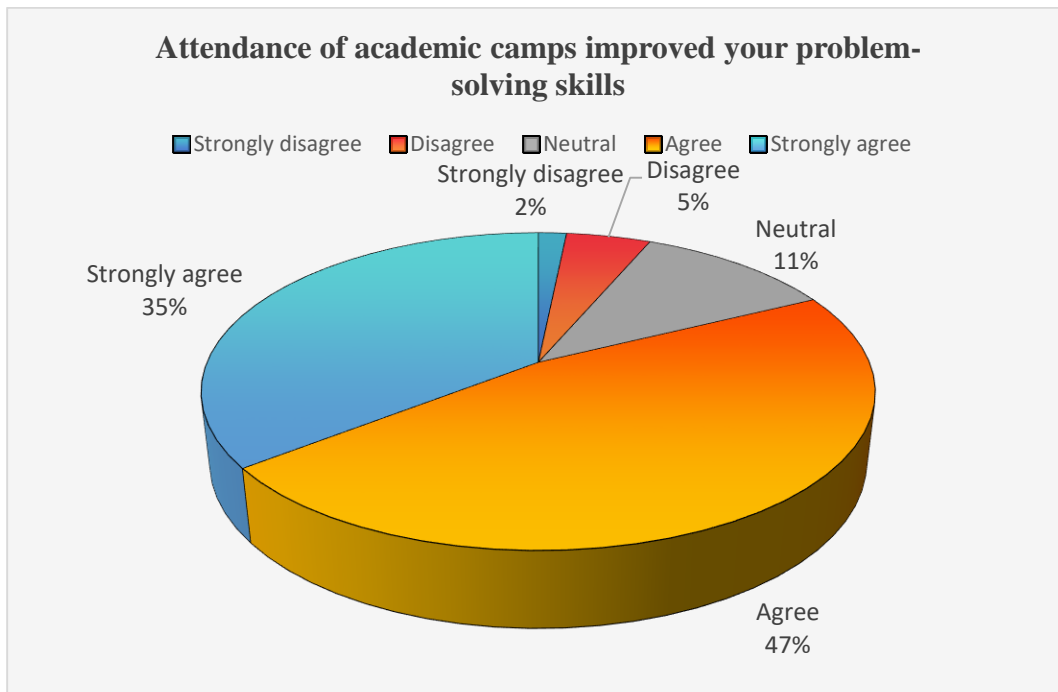
55% rated the motivation as much higher.

30% rated it as slightly higher.

Only 15% of teachers rated the motivation levels as about the same, with none rating it as slightly lower or much lower. These findings align with the Theory of Planned Behavior (TPB), showing that teachers have a highly positive attitude toward the benefits of academic camps, perceiving them as effective tools for enhancing student motivation.

Students' Perspective on Problem-Solving Skills

Pie chart 1.3: Distribution of responses



Source: Field research (2024)

Students also reported improvements in their problem-solving skills after attending academic camps:

58.1% either strongly agreed (21%) or agreed (37.1%) that their problem-solving skills improved.

30.6% of students were neutral.

11.3% (8.1% disagreed, 3.2% strongly disagreed) felt their problem-solving skills did not improve.

The varied responses indicate that while many students perceived that their problem-solving skills improved, others felt less certain about the extent of this impact. This diversity in responses reflects differences in perceived control over skill development through camp participation.

Correlations between Motivation and Problem-Solving Skills

The high motivation levels observed by teachers correlated with students' reports of improved problem-solving skills. Higher motivation led to increased engagement in learning activities, which in turn enhanced problem-solving abilities.

Findings

The findings demonstrated a clear positive impact of academic camps on students' motivation and problem-solving skills.

Increased Motivation Levels

Teachers observed significantly higher motivation levels among students who attended academic camps, suggesting that these camps play a crucial role in boosting students' interest and engagement in their studies. This observation was supported by an interview with HDM A, who stated, *“Academic camps’ main focus is to develop academic performance, so teachers and administrators ensure that those who are in the camps are well motivated”* (HDM A, Personal communication, 12 July 2024). This underscores the importance of motivation in achieving better academic performance.

Enhanced Problem-Solving Skills

A significant portion of students reported improvements in their problem-solving skills after attending academic camps. While some students were neutral or disagreed, the overall trend indicated a positive impact. HDM A supported this finding, noting, *“Academic camps help to create and generate the ability to solve problems within society, even for those who do not pass exams”* (HDM A, Personal communication, 12 July 2024). This highlights the broader benefits of academic camps beyond just academic performance.

Positive Correlation

The positive correlation between higher motivation levels and improved problem-solving skills suggests that motivated students engage more deeply with learning activities, thereby enhancing their cognitive abilities. Recent studies by Brown (2021) and Smith & Johnson (2022) have similarly highlighted the benefits of academic camps in improving student motivation and problem-solving skills.

Overall, the data illustrates a positive correlation between academic camp participation and enhanced student motivation and problem-solving skills. Supported by the Theory of Planned Behavior, the findings highlight the importance of promoting academic camps as a means to enhance both motivational and cognitive skills in students.

REFERENCES

- Brown, A. (2021). The Impact of Extracurricular Programs on Student Achievement. *Journal of Educational Research*, 114(2), 123-135.
- Brown, A., Smith, C., & Jones, M. (2017). Enhancing Student Learning through Academic Camps: A Practical Approach. *Educational Research Quarterly*, 40(3), 22-37.
- Davis, P., & Green, R. (2020). Long-term Effects of Academic Camps on Student Achievement. *Journal of Educational Psychology*, 112(4), 541-558.
- Garcia, L., & Nguyen, T. (2021). Evaluating the Effectiveness of Supplemental Educational Programs. *International Journal of Education*, 57(2), 185-202.
- Johnson, D. (2018). Policy Implications of Educational Interventions in Secondary Schools. *Educational Policy Journal*, 30(1), 67-81.
- Patel, R. (2020). Challenges in Secondary Education: Focus on Mathematics and Science. *Secondary Education Review*, 49(2), 99-115.
- Roberts, K., & Kim, S. (2021). Assessing the Impact of Academic Camps on Student Outcomes: A Meta-Analysis. *Journal of Education*, 92(3), 320-340.
- Smith, J., & Johnson, L. (2022). Enhancing Academic Performance Through Supplemental Education: The Role of Academic Camps. *Education Today*, 19(4), 456-478.
- Smith, J., & Jones, L. (2018). The Role of Supplementary Education in Student Achievement. *Education Today*, 76(5), 123-137.
- Thompson, P., & Lee, H. (2019). Academic Camps and Their Role in Educational Development. *Journal of Advanced Education*, 45(4), 241-259.
- Williams, R., Johnson, A., & Miller, S. (2022). Standardized Testing and Academic Camps: A Comparative Study. *Journal of Education Research*, 85(2), 212-228.