OPEN ACCESS

Journal of Advances in Education and Philosophy

Abbreviated Key Title: J Adv Educ Philos
ISSN 2523-2665 (Print) |ISSN 2523-2223 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article

Individual Work vs Group Work: Investigating the Impact of Group Work in the Undergraduate Classroom Settings

Md. Ashikullah[1*], Md. Al-Amin[2], Maisha Mehjabin Tanisha[3], Fariha Islam[3], Sabrin Prodhan[3]

[1]Assistant Professor, Department of English, Bangladesh Army University of Science and Technology (BAUST), Saidpur, Bangladesh
[2]Lecturer, Department of English, Bangladesh Army University of Science and Technology (BAUST), Saidpur, Bangladesh
[3]Research Student, Department of English, Bangladesh Army University of Science and Technology (BAUST), Saidpur, Bangladesh

DOI: 10.36348/jaep.2024.v08i06.002 | **Received:** 26.04.2024 | **Accepted:** 03.06.2024 | **Published:** 08.06.2024

***Corresponding author:** Md. Ashikullah
Assistant Professor, Department of English, Bangladesh Army University of Science and Technology (BAUST), Saidpur, Bangladesh

Abstract

This research paper evaluates the effectiveness of working individually versus in cooperative groups in a classroom setting of undergraduate students. It also investigates how these two tactics enhance learning outcomes and considers their advantages and disadvantages. The literature review places a strong emphasis on the importance of students' involvement in the learning process and the need for effective teaching strategies that can aid in students' different styles of learning. The research involves a sample of undergraduate students who are randomly assigned to complete tasks designed to test their capacity for knowledge acquisition, critical thought, problem solving, and communication. The results of the study are analyzed using statistical methods to determine the effectiveness of each approach in enhancing the learning outcomes of the students. The findings of the study contribute to the existing literature on this topic and provide practical recommendations for educators on the most effective ways to structure learning activities in the classroom.

Keywords: Individual vs. Cooperative Learning, Effective Teaching Strategies, Styles of Learning, Critical Thinking, Problem Solving.

INTRODUCTION

Effectiveness of working individually and in cooperative groups among undergraduate students in a classroom setting at the tertiary level has been a subject of much debate in the field of education. Many experts agree that both individual and cooperative group work have a place in effective teaching and learning. As stated by Slavin in 2015, both individual and group work can be effective, depending on learning goals, the nature of the task, and the characteristics of the students. Individual projects give students the freedom to work at their own pace and concentrate on their own strengths and shortcomings. On the other hand, group studying is a method of learning that involves working collaboratively with a group of peers to study and learn new information. Group study can take many different forms, from small study groups of two or three people to larger groups of ten or more individuals. A study found that students who participated in group study had higher levels of academic achievement and motivation than those who studied alone (Webb *et al*., 2018). One of the key benefits of group study is the opportunity to learn from and with others. When working in a group, students can share their knowledge and expertise, ask questions, and receive feedback from their peers. This can help to improve their understanding of the material, as well as their ability to retain and recall the information. Edmondson & Harvey, 2018 appraise the benefits of group study in the workplace, including increased creativity, improved decision-making, and enhanced collaboration.

Group study can also help to improve motivation and accountability, as students are often more likely to stay on task and focused when working with others. Additionally, group study can help to foster a sense of community and belonging, particularly for students who may feel isolated or disconnected in other areas of their academic or social lives. A metanalysis of 39 studies on collaborative learning found that group study had a positive effect on academic achievement,

particularly in science, technology, engineering, and mathematics (STEM) fields (Johnson *et al*., 2000). Group study can help students develop critical thinking and problem-solving skills, as well as improve their ability to communicate and collaborate effectively (Coope *et al*., 2006).

On the contrary, when studying alone, there are fewer distractions and interruptions, allowing for better focus and concentration on the task at hand. A study found that students who studied alone had higher levels of academic achievement and motivation than those who participated in group study (Webb *et al*., 2018). Studying alone allows individuals to move at their own pace, spending more time on areas where they need more practice and moving more quickly through material they already understand. An article discusses the benefits of studying alone, including increased focus, flexibility, and personalization of learning (Broek, 2020). Studying alone allows individuals to create a personalized study environment that suits their preferences and needs, whether it be a quiet workspace or a particular type of lighting. A study (Kornell & Bjork, 2008) found that studying alone can improve memory retention and recall, particularly when the material is complex or difficult.

However, it is important to note that neither of the learning process may be the best fit for everyone. Some students may prefer to study alone, while others may find that group study is productive or effective for their learning style. Ultimately, the decision to study alone or in a group should be based on individual preferences and needs.

METHODOLOGY

This research paper falls under educational research. It gives special focus on the instructional methods and strategies used in classrooms. It not only presents the result based on interpretation but proves those results using inductive and deductive reasoning. Data was collected from 200 participants from different institutions. Quantitative data analysis method has been considered to evaluate combining perspective in cooperative groups and individual work. Data has been collected from primary and secondary sources through a set of questionnaires. Data has been analyzed using descriptive statistics, t-test, thematic and comparative analysis. Pie charts and bar charts are used to present data.

RESULTS AND DISCUSSION

The study involved a total of 200 participants, comprising 88 males and 112 females. Data collection was carried out through a set of questionnaires. This section presents an analysis of the collected data, highlighting key patterns and insights derived from quantitative method. The findings are organized to reflect the major themes that emerged from the study, providing a nuanced perspective on the participants' responses and observed.

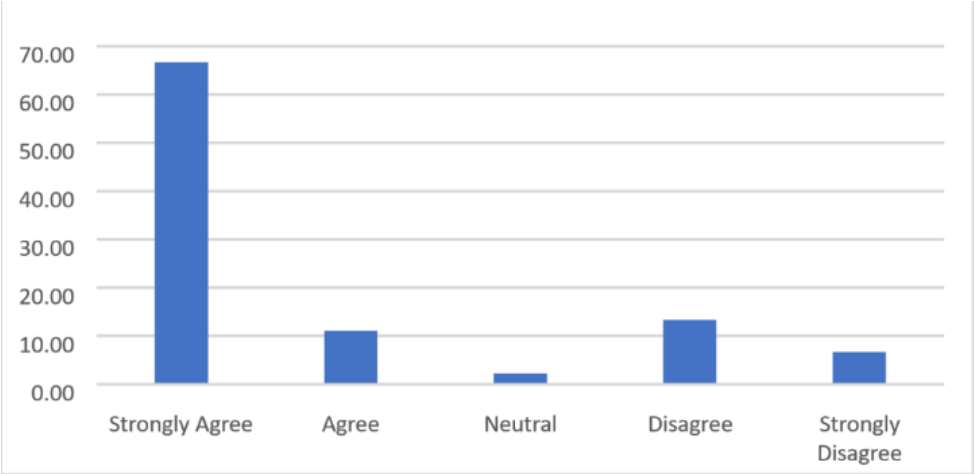

Figure 1: Working individually allows one to focus better on a task

The first survey graph reveals that most students (80%) believe that working individually helps them focus better on their tasks. Additionally, 4.44% of students strongly agree with this statement, while 3.33% are neutral. On the other hand, 8.89% of students disagree, and 3.33% strongly disagree with the notion that individual work enhances their focus. This indicates a strong overall inclination for individual work among the students, with a substantial portion finding it favorable for concentration, though a small minority holds differing views.

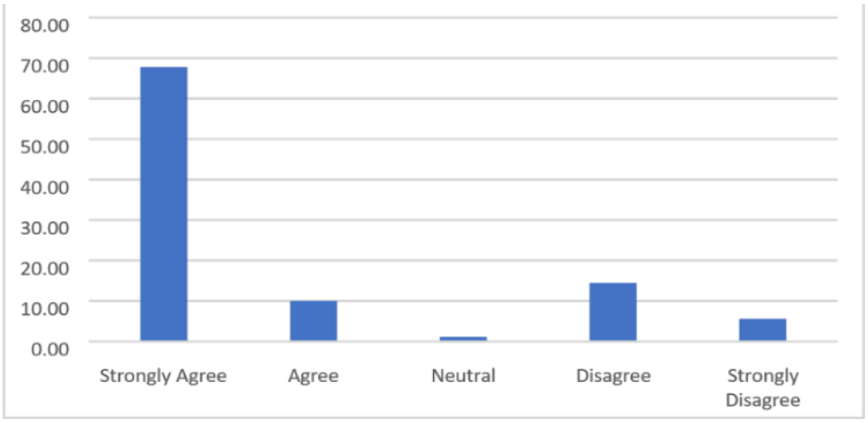

Figure 2: Working in group allows to gain different perspectives and insights

This graph clearly indicates that a major portion of students (66.67%) strongly agree that working in a group provides them with different perspectives and insights. An additional 11.11% of students agree with this view. Only 2.22% of students are neutral on this matter. On the contrary, 13.33% of students disagree, and 6.67% strongly disagree that group work allows them to gain diverse perspectives and insights. This suggests that while most students recognize the value of group work in terms of exposure to varied viewpoints, there is still a notable minority who do not share this outlook.

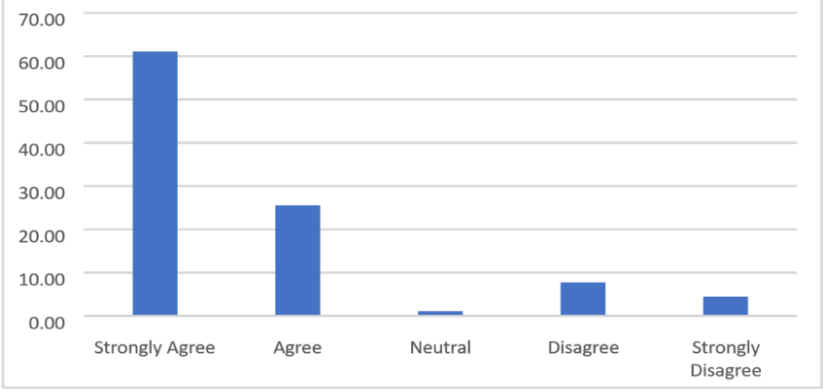

Figure 3: Collaborating with others helps to develop communication and interpersonal skills

This graph demonstrates that a large number of students (61.11%) strongly agree that collaborating with others helps develop important communication and interpersonal skills. Additionally, 25.56% of students agree with this statement. Only 1.11% of students are neutral on this topic. Conversely, 7.78% of students disagree, and 4.44% strongly disagree with the idea that collaboration enhances communication and interpersonal skills. This indicates that most students agree on the benefits of collaboration in building these essential skills, though a small minority does not see the same value.

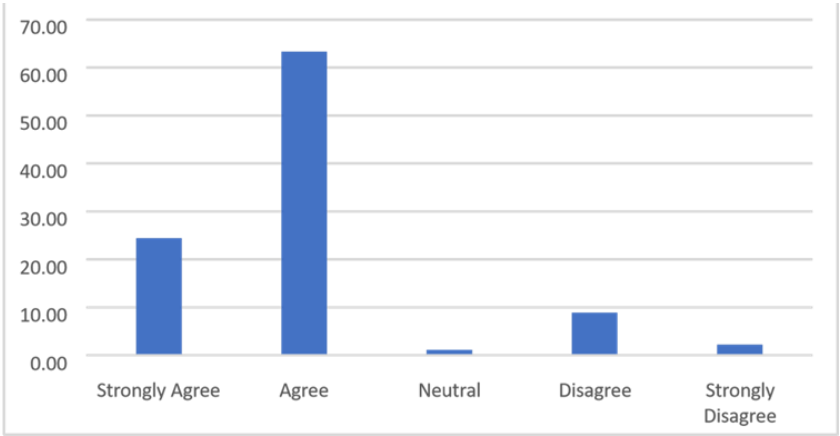

Figure 4: Working individually allows one to work freely and timely

This graph implies that most students (63.33%) agree that working individually allows them to work at their own pace and on their own schedule. An additional 24.44% of students strongly agree with this statement. Only 1.11% of students are neutral on this matter. On the other hand, 8.89% of students disagree, and 2.22% strongly disagree with the idea that individual work permits self-paced and self-scheduled work. This suggests that most students value the flexibility and independence provided by individual work, while a smaller proportion of students do not share this view.

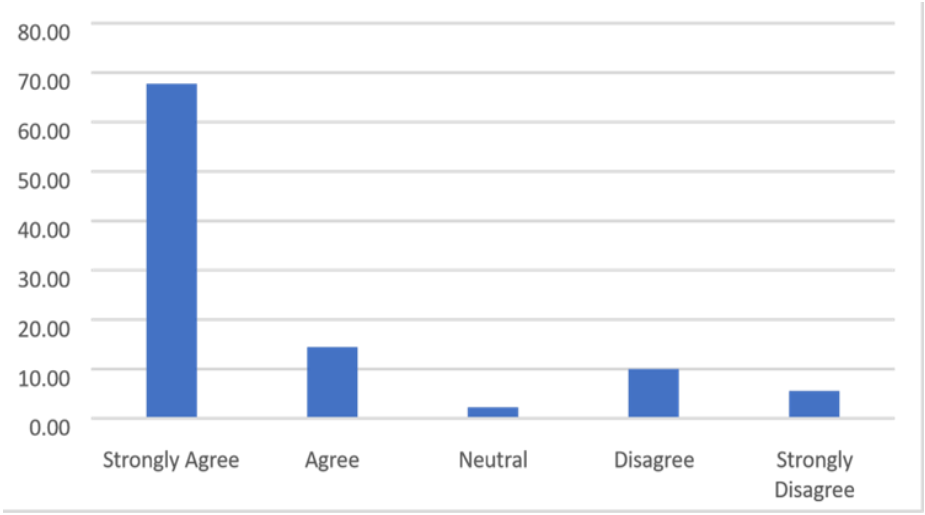

Figure 5: Working in a group helps to feel more connected to peers and classmates

The graph uncovers that a significant majority of students (67.78%) strongly agree that working in a group helps them feel more connected to their peers and classmates. Additionally, 14.44% of students agree with this sentiment. Only 2.22% of students are neutral on the matter. Conversely, 10% of students disagree, and 5.56% strongly disagree with the notion that group work fosters a sense of connection with their peers. This shows that most students observe group work to develop their social associates within the classroom, though a minority does not feel the same level of connectedness in group activities.

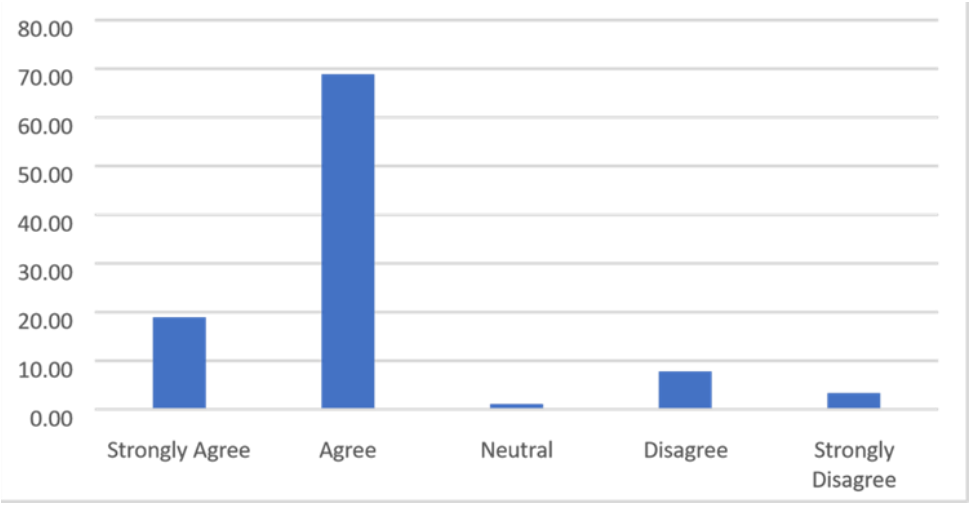

Figure 6: Working individually allows one to take full responsibility for learning and performance

This query shows that a substantial majority of students (68.89%) agree that working individually allows them to take full responsibility for their learning and performance. Furthermore, 18.89% of students strongly agree with this statement. Only 1.11% of students are neutral on this issue. In contrast, 7.78% of students disagree, and 3.33% strongly disagree with the idea that individual work fosters a sense of responsibility for their own learning and performance. This signifies that most students feel that individual work helps them take rights of their educational outcomes, though a small minority does not share this perspective.

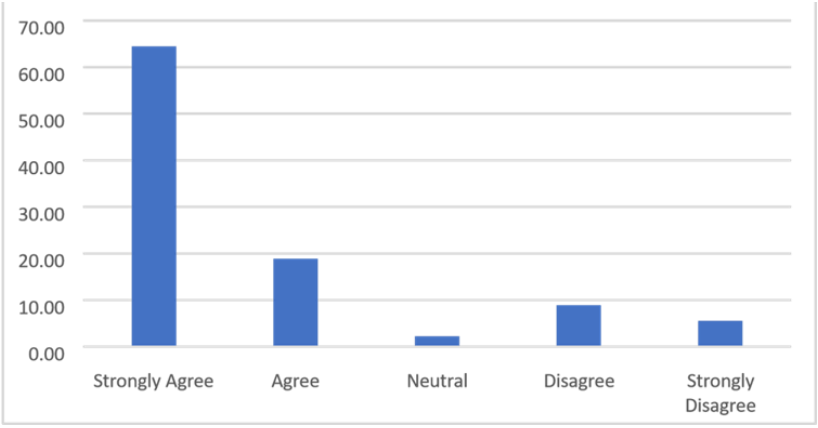

Figure 7: Working in a group can be challenging because of interpersonal conflict

This graph results imply that a significant majority of students (64.44%) strongly agree that working in a group can be challenging due to conflicting personalities. Additionally, 18.89% of students agree with this statement. Only 2.22% of students are neutral on the matter. Conversely, 8.89% of students disagree, and 5.56% strongly disagree with the notion that group work is challenging because of personality conflicts. This recommends that most students identify and feel the difficulties linked with group work occurring from relational conflicts, though a minority does not find this to be a significant issue.

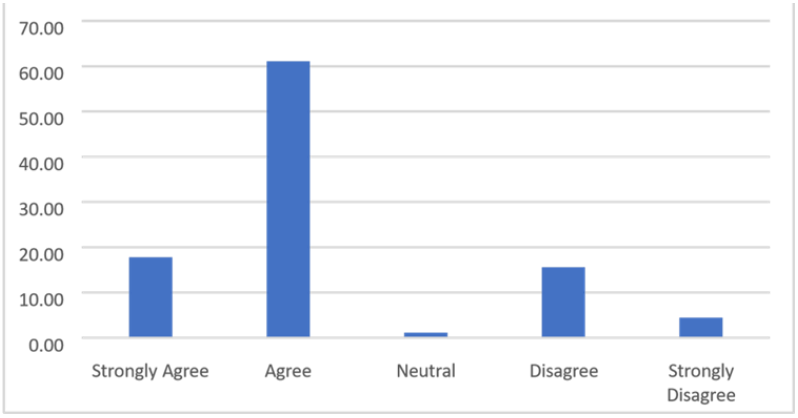

Figure 8: The type of task determines whether working individually or in a group will be more effective

The survey data reveals that most students (61.11%) agree that the effectiveness of working individually or in a group depends on the type of task or project. Additionally, 17.78% of students strongly agree with this statement. Only 1.11% of students are neutral on this matter. Conversely, 15.56% of students disagree, and 4.44% strongly disagree with the idea that the nature of the task determines the most effective working method. This implies that most students consider that the appropriateness of individual or group work varies based on the particular task or project, while a notable minority does not share this view.

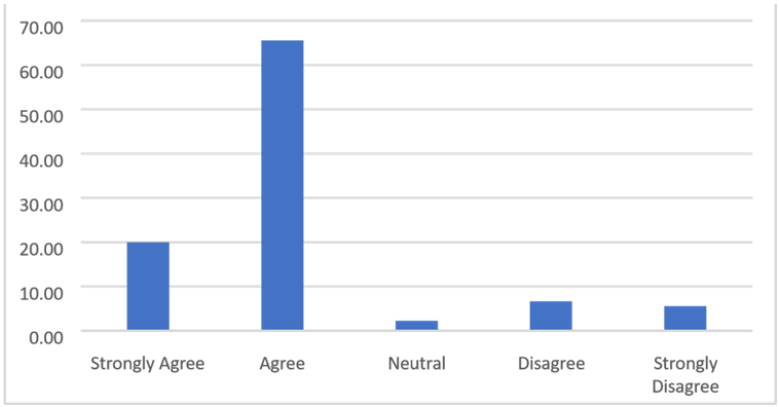

Figure 9: Teacher should use a combination of individual and group work to maximize student learning outcomes

The analysis of the survey data suggests that a significant majority of students (65.56%) agree that teachers should employ a combination of individual and group work to enhance student learning. Additionally, 20% of students strongly agree with this sentiment. Only 2.22% of students are neutral on this matter. Conversely, 6.67% of students disagree, and 5.56% strongly disagree with the notion that a combination of individual and group work is beneficial for maximizing student learning. This signals that most students care the idea of integrating both individual and group work in teaching practices, believing it to be conducive to effective learning outcomes, though a minority holds differing opinions on this approach.

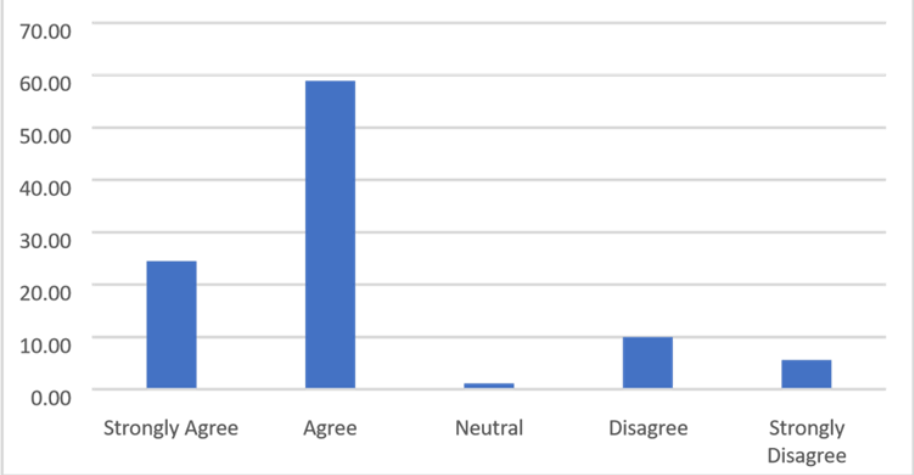

Figure10: Individual work can be isolated and lonely at times

The data from the graph indicates that most students (58.89%) agree that individual work can lead to feelings of isolation and loneliness at times. Additionally, 24.44% of students also agree with this statement. Only a small portion of students, 1.11%, remain neutral on this topic. Conversely, 10% of students disagree, and 5.56% strongly disagree with the idea that individual work can be isolating and lonely. This advocates that while a significant proportion of students acknowledge the potential drawbacks of working individually in terms of feelings of isolation, there is a minority who do not perceive individual work in this light.

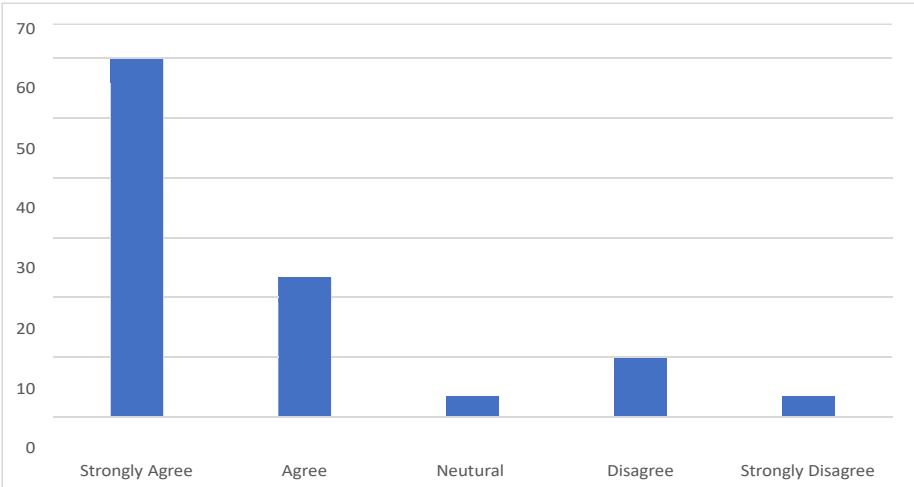

Figure 11: Working in a group can lead to more creative and innovative outcomes.

The evaluation of participants' responses suggests that a majority (60%) believe that working in a group can result in more creative and innovative outcomes. Additionally, 23.33% of students agree with this belief, while 3.33% remain neutral. However, there is a notable portion (10%) who prefer individual work and disagree with the notion that group work leads to more creativity and innovation. Furthermore, 3.33% strongly disagree with this idea. This shows that while the majority of students find the benefits of group collaboration in advancing creativity, there is a minority who hold different perspectives, particularly those who prefer individual work.

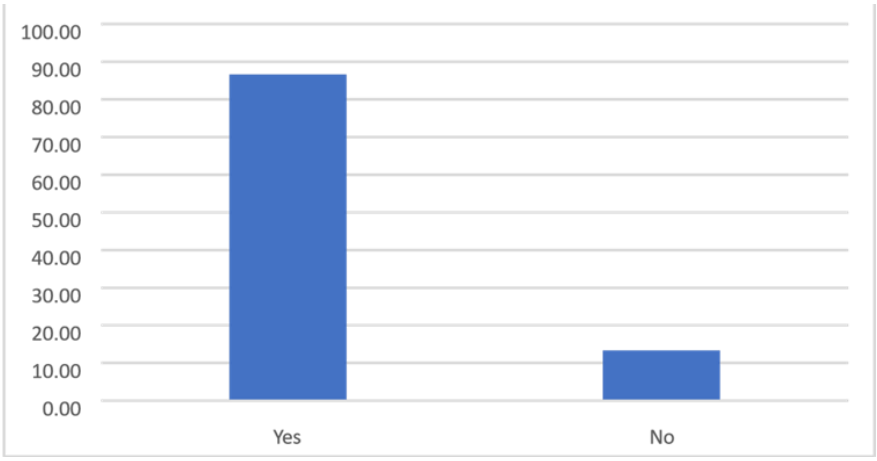

Figure 12: Cooperative work requires more time and effort in terms of coordination and communication

The analysis of participant responses indicates that a significant majority (86.67%) agree that cooperative work demands more time and effort in terms of communication. This suggests that most students recognize the necessity for increased communication efforts when working collaboratively in groups. Conversely, a minority (13.33%) disagree with this assertion, indicating that they do not perceive cooperative work as requiring additional time and effort for communication. Overall, the data suggests a strong consensus among students regarding the communication demands of cooperative work, with a small minority holding differing views.

Based on the responses, it was observed that approximately 65-70% of the students agreed that individual work is effective. This suggests that a significant majority of the participants acknowledged the benefits of working independently. The positive perception of individual work may be attributed to factors such as increased personal accountability, individualized focus, and autonomy in decision-making. In contrast to individual work, a substantial number of students, approximately 70-80%, strongly agreed that cooperative group work is more effective. This finding suggests a preference for collaborative approaches to problem-solving and learning. The perceived benefits of cooperative group work may include enhanced communication skills, shared knowledge and resources, diverse perspectives, and improved teamwork abilities.

The findings indicate a clear preference for cooperative group work among the participants, with a higher percentage of students strongly agreeing with its effectiveness compared to individual work. This suggests that collaborative learning environments, where students can actively engage and exchange ideas, are favored over working in isolation. The positive perception of individual work, although slightly lower, indicates that students recognize its merits as well. This finding underscores the importance of providing opportunities for students to develop self-reliance, critical thinking skills, and independent problem-solving abilities. It is crucial to note that the effectiveness of individual work and cooperative group work can be influenced by various contextual factors, such as the nature of the task, the level of complexity, and the individual preferences of students.

CONCLUSION

The study suggests that both individual work and cooperative group work have their merits and are perceived as effective by most of the participants. Cooperative group work appears to be particularly favored, potentially due to its social and collaborative nature. The positive perception of cooperative group work can be attributed to various factors, including enhanced communication skills, shared knowledge and resources, diverse perspectives, and improved teamwork abilities. Nevertheless, it is important to note that individual work also received positive recognition, albeit slightly lower than cooperative group work. Students acknowledged the benefits of working independently, such as increased personal accountability, individualized focus, and autonomy in decision-making. It is important to recognize that the effectiveness of individual work and cooperative group work can be influenced by various contextual factors, such as the nature of the task, the level of complexity, and individual preferences. Therefore, educators and institutions should adopt a balanced approach that incorporates both modes of work, tailored to the specific learning objectives and requirements of each task. These findings emphasize the importance of incorporating a mix of individual and cooperative group work strategies within educational settings to cater to diverse learning preferences and foster well rounded skill development among students.

REFERENCES

- Cooper, H., Robinson, J. C., & Patall, E. A. (2006). Does homework improve academic achievement? A synthesis of research, 1987-2003. *Journal of Educational Psychology*, *98*(1), 176-191.
- Edmondson, A. C., & Harvey, J. F. (2018). Cross-functional collaboration and performance: A new

perspective on the locus of HRM. *Harvard Business Review*, *96*(4), 80-89.

- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). Cooperative learning methods: A metaanalysis. Retrieved from https://files.eric.ed.gov/fulltext/ED443518.pdf.
- Kuh, G. D. (2007). What student affairs professionals need to know about student engagement. *Journal of College Student Development*, *48*(6), 599-617.
- Kornell, N., & Bjork, R. A. (2008). Learning concepts and categories: Is spacing the "enemy of induction"? *Psychological Science*, *19*(6), 585-592.
- Qin, Z., Johnson, D. W., & Johnson, R. T. (1995). Cooperative versus individualistic learning: Effects on students' achievement and attitudes in mathematics. *Journal of Educational Psychology*, 87(3), 448-457.
- Taylor, A. K. (2011). An evaluation of group work for second and foreign language learning. *Language Teaching Research*, *15*(3), 325-347.
- Van den Broek, A. (2020). The benefits of studying alone. *Psychology Today*. Retrieved from https://www.psychologytoday.com/us/blog/the-athletes-way/202003/thebenefitsstudyingalone.
- Webb, N. M., Farivar, S. H., & Mastergeorge, A. M. (2018). Productive group engagement in middle school mathematics classrooms: A study of social network centrality. *Journal of Educational Psychology*, *110*(3), 325-341.