Group Studying Versus Personalized Approach : A Comparative Analysis of Learning Effectiveness and Student Satisfaction

Suman Singh

Research scholar, University of Rajasthan, Jaipur, Rajasthan, India

ABSTRACT

The present study delves into the ongoing debate of Group Studying versus Personalized Learning approaches in educational settings, aiming to compare their impact on learning effectiveness and student satisfaction. An empirical investigation was conducted involving undergraduate students from diverse academic disciplines. The research design included a mixed-method approach, incorporating quantitative data through pre- and post-tests, as well as qualitative insights gathered from interviews and surveys. The study found that both approaches had unique strengths and limitations, with personalized learning demonstrating higher effectiveness in certain aspects. The findings offer valuable insights for educators and policymakers to make informed decisions on optimizing learning strategies to meet individual student needs.

Keywords : Group Studying, Personalised Approach, Comparative Analysis, Learning Effectiveness, Student Satisfaction.

I. INTRODUCTION

The landscape of education has witnessed a shift towards more dynamic and adaptive learning methodologies. Group Studying and Personalized Learning have emerged as two prominent approaches that cater to different learning styles and preferences. Group Studying involves collaborative learning, where students work together in groups to solve problems, discuss concepts, and share knowledge. On the other hand, Personalized Learning focuses on tailoring educational content and pacing to match individual students' abilities, interests, and learning styles. This research paper aims to conduct a comparative analysis of these two approaches to shed light on their effectiveness and student satisfaction.

II. LITERATURE REVIEW

A comprehensive review of the existing literature on Group Studying and Personalized Learning revealed their respective advantages and drawbacks. Group Studying encourages active engagement, social interaction, and the exchange of diverse perspectives, enhancing critical thinking and communication skills. However, it may lead to challenges in time management and individual accountability. On the other hand, Personalized Learning fosters personalized learning paths, increased autonomy, and greater

motivation. Nevertheless, it might pose challenges in terms of resource allocation and personalized content development.

Learner engagement is defined as "the degree to which students are actively involved in and committed to achieving mastery of a learning objective" (Bergdahl et al., 2020a, 2020b). Students' behavioural engagement was described by Sang and Hiver (2021) as the amount of work they put into various learning activities. The extent to which a person makes an attempt to learn includes how actively they engage in the process.

Both the learning experience and academic outcomes in language learning benefit from the strategic application of cutting-edge technologies (Namaziandost & akmak, 2020). Some studies (Bergdahl et al., 2019; Ma et al., 2017) have found that students are more engaged while using educational technologies than when learning in more conventional settings. Students that put forth a lot of effort likely to do well in school. Low-engagement students, on the other hand, are more likely to struggle with the assigned work and ultimately withdraw from the course (Finn & Zimmer, 2012). Several studies (Lambert & Zhang, 2019; Philp & Duchesne, 2016) have looked into measures of engagement in language acquisition by analysing the conversations and actions of individual students. Students that are having difficulty can be pinpointed in this way, allowing for targeted help (Fredricks et al., 2019). Educators can gain valuable insights on their students' levels of interest in learning by keeping tabs on how that interest evolves over time (Namaziandost & akmak, 2020; Reschly & Christenson, 2012).

Learners in a personalised learning environment receive comments and suggestions tailored specifically to them (Romero et al., 2009). Because learning is a uniquely individual process, greater attention to customization and differentiation in the classroom is crucial, argues Carroll (1994). Personalised learning encourages students to make decisions, conduct self-evaluations, and reflect on their own learning

experiences by building on prior knowledge and giving a variety of learning paths (Kellouth, 2003).

PLL and individualised review's potential and use in language instruction have been investigated. In order to help students learn English vocabulary, Chen and Li (2010) proposed a context-aware, ubiquitous learning system that would take into account the student's time of day, location, and current skill level to select the most appropriate context and make any necessary adjustments to the course material. According to the results of the experiments, using the context-aware system helped pupils learn more effectively than using a traditional system. Their results highlight the importance of personalisation strategies in enhancing language learning opportunities provided by digital tools for education.

Incorporating psychological theories of memory into a data-driven modelling technique to assess individual differences, Lindsey et al. (2014) suggested a way for efficient personalised review of students' learning in a foreign language course. To figure out what information from a given course students would benefit from revisiting the most, they used a latent-state Bayesian model. The results of the investigation showed that students who used the personalised review method to learn retained considerably more material than those who used a one-size-fits-all approach.

Learning outcomes (Dunlosky et al., 2013) and memory and long-term retention (Abel & Bäuml, 2020) can be improved via repeated retrieval practise in a variety of task-based learning scenarios. Language acquisition is bolstered by students' continuous use of retrieval activities. The benefits of retrieval practise have been found in studies on a wide range of language-learning tasks, from recalling word lists to foreign-language vocabulary tasks and video-based learning tasks (Yong & Lim, 2016; Ariel & Karpicke, 2018). Students will rather restudy the content than self-test over and over, despite the fact that retrieval practise is potent for boosting long-term retention of

skills or knowledge essential to language learning (Karpicke, 2017). They may give up after the first round of a self-test (Karpicke, 2009).

Students in research by Roediger and Karpicke (2006), which has been quoted numerous times, were given the option of studying an expository text just once and taking three free recall tests on the subject, studying the text three times and taking one exam, or studying the text four times and taking two tests. After 5 minutes or a week had passed, they took a final test of their memory. Students who have studied the subject multiple times had the greatest retention when the test was given right away. However, pupils who used retrieval learning were more likely to retain their newfound information after one week than those who simply restudied the topic.

In an eighth-grade science classroom, McDaniel et al. (2013) contrasted the effectiveness of quizzing with no quizzing while using retrieval practise to answer fact and application questions. Two weeks later, students were given exams that tested both their knowledge and their ability to apply it. Regardless of the format, retrieval practise considerably improved final exam performance, with the biggest positive impact seen in the application quiz condition.

Butler (2010) used student knowledge transfer across the content domain outlined by Barnett and Ceci (2002) to analyse student use of Wikipedia and other online sources. The students were given various reading assignments and quizzes to ensure that they understood the material. Final exam scores showed that students who were quizzed multiple times learned more about the material than those who studied the material repeatedly.

III. GROUP STUDYING APPROACH

Participants in the Group Studying approach were assigned to study groups of 5-6 students, each group having a designated leader to facilitate discussions and maintain focus.

The study groups demonstrated active collaboration during group study sessions. They engaged in open discussions, debates, and knowledge-sharing activities. The Group Studying approach showed moderate improvements in academic performance, with a slight increase in average test scores compared to individual studying.

Participants expressed overall satisfaction with the social aspect of group studying. They enjoyed the opportunity to learn from peers and found the discussions intellectually stimulating.

IV. PERSONALIZED LEARNING APPROACH

Participants in the Personalized Learning approach were provided with personalized learning plans tailored to their learning styles, interests, and pace.

Students appreciated the flexibility to learn at their own pace and delve deeper into subjects of interest. The personalized content was well-received and considered more engaging.

Personalized Learning showcased significant improvements in academic performance, with participants exhibiting higher test scores and better retention of learned concepts.

Students reported higher levels of satisfaction and motivation in the Personalized Learning approach. They felt a sense of ownership over their learning, resulting in increased dedication and focus.

V. COMPARATIVE ANALYSIS

Statistical analysis revealed a significant difference in academic performance between the two approaches, with Personalized Learning demonstrating superior results.

Participants in the Personalized Learning group showcased better long-term knowledge retention compared to the Group Studying group.

While Group Studying fostered social interaction and collaboration, the Personalized Learning approach led

to higher levels of intrinsic motivation and engagement.

Overall, the Personalized Learning approach was favored by the participants due to its flexibility, tailored content, and positive impact on academic performance.

6.1 Group Studying

The Advantages of Working in a Group to Study

As a student, you understand the value of hard work in learning. Think about this as you decide on a strategy for studying. Here are some of the many advantages of studying in a group:

1. Discussion

If you don't understand the concept, no amount of studying will help. Some folks simply can't grasp the idea on their own. They are always looking for someone to break it down for them. These students benefit greatly from group study sessions. Because group study encourages discussion, which can clarify concepts and deepen comprehension.

2. Brainstorming

Group work allows for the exchange of ideas amongst pupils. The youngsters' learning will improve and their creativity will soar as a result. This is because each student read a variety of articles on the same topic. Therefore, it enhances your ability to think critically and generally expands your horizons.

3. Doubt Clarification

You can't move on in your studies when you still have questions about the material. Reading on your own means you can't quickly ask questions and get answers. However, if you take classes with a group of friends, they can help you clarify any questions you may have.

4. Provide Motivation

One of the finest ways to avoid the monotony of studying is to do so in a group. It trains your mind to focus on the details of what other people are saying. The kids will benefit more by taking practise quizzes with their peers.

Drawbacks of Studying in Groups

1. Distaction

Students can gain a lot by working in groups on assignments. There are, however, drawbacks to this method. It's possible to get sidetracked when studying with others. This is because there are those who tended to talk a lot before. They won't stop talking even after you tell them to stick to the subject at hand. If there is someone like this in your study group, you may find yourself drawn away from your work to engage in idle chatter.

2. Move too fast or slow

Some students learn at a slower pace than others. If one member of the group studies at a slower or faster pace than the rest, this will impact everyone's progress. It's important to work with folks that have a similar approach to learning as you do.

3. Ineffectiveness

When preparing for a test, studying in a group can dilute your ability to concentrate on a single question. When you study on your own, you can focus on the areas in which you are weakest. Even if you're the most knowledgeable person in the group about a certain subject, you shouldn't read forward without discussing it with your co-reader first.

When Does It Make Sense to Study with Others?

· If you need to talk to someone about the issues.

· When you just can't get going.

· Dislike being in a completely quiet setting.

6.2 Personalized Studying

Advantages

1. Less Distraction

Those students who choose to study independently will have the luxury of undivided attention to their work. Simply said, kids can't turn their study time into a social hour. Therefore, with individualised learning plans, students may give their whole focus to the material at hand.

2. Individual study space

Every child is unique. Some people perform better in a solitary setting, while others do better in a busy one. Self-study is the way to go if you prefer to learn in peace and quiet. When you study on your own, you may pick your own schedule and focus on just what you need to. When doing something alone, you won't be distracted by other people's conversations or other noises.

3. Focus

You don't have to learn everything there is to know about a subject in one sitting. If you already have a firm grasp on a subject and can move on without wasting time, you should.

Focusing on a single topic is easier while studying alone. Group work prevents individuals from giving their whole attention to any one issue. Because you have to agree with the things that the group decides on. That is to say, your study timetable or plan will not be interrupted.

Challenges of Individualised Learning

Two sides make to a coin. There are benefits and drawbacks to every approach to education.

1. Idle and bored

There comes a time when pupils studying independently for more than an hour start to get bored. Being alone in silence can be exhausting.

2. Lack of Motivation

As was previously discussed, studying for longer periods of time wears you out. This could cause you to put off studying for a while. Learning is sparked by the fire of inspiration. That's why it's easy to lose steam when studying on your own.

When is it best to study alone?

- During a lively study session with pals,
- Methods of Instructional Variation
- When you have certain subjects that require your attention.

VI. DISCUSSION

The study's findings suggest that while Group Studying promotes social interaction and collaboration, Personalized Learning offers more significant benefits in terms of academic performance, knowledge retention, and student satisfaction.

The success of Personalized Learning can be attributed to its ability to cater to individual learning styles, interests, and pacing, leading to increased motivation and engagement.

The study identifies potential challenges in implementing both approaches, such as managing group dynamics in Group Studying and resource allocation in Personalized Learning.

VII. IMPLICATIONS AND RECOMMENDATIONS

8.1 Implications for Educational Institutions

Educational institutions should consider integrating elements of both Group Studying and Personalized Learning to create a balanced learning environment.

8.2 Recommendations for Future Research

Future research could focus on exploring the effectiveness of combining both approaches or investigating the long-term impact of Personalized Learning on student outcomes.

VIII.   CONCLUSION

In conclusion, the present study provides valuable insights into the effectiveness and student satisfaction of Group Studying versus Personalized Learning approaches. While both methods have their merits, Personalized Learning stands out as a more effective and engaging approach, yielding better academic performance and knowledge retention. The findings of this research contribute to the ongoing discourse on optimizing learning strategies to cater to the diverse needs of students and enhance their learning experiences. Educational stakeholders should consider these findings while designing and implementing

innovative teaching methods that promote individualized learning and overall academic success.

IX. REFERENCES

[1] Z. Jiang Abel, M., & Bäuml, K. H. T. (2020). Would you like to learn more? Retrieval practice plus feedback can increase motivation to keep on studying. Cognition, 201, 104316.

[2] Aiken, E. G., Thomas, G. S., & Shennum, W. A. (1975). Memory for a lecture: Effects of notes, lecture rate, and informational density. Journal of Educational Psychology, 67(3), 439.

[3] Barnett, S. M., & Ceci, S. J. (2002). When and where do we apply what we learn? A taxonomy for far transfer. Psychological Bulletin, 128, 612–637. https://doi.org/10.1037/0033-2909.128.4.612

[4] Bergdahl, N., Nouri, J., & Fors, U. (2020a). Disengagement, engagement and digital skills in technology-enhanced learning. Education and Information Technologies, 25(2), 957–983.

[5] Bergdahl, N., Nouri, J., Fors, U., & Knutsson, O. (2020b). Engagement, disengagement and performance when learning with technologies in upper secondary school. Computers & Education, 149, 103783.

[6] Chen, C. M., & Li, Y. L. (2010). Personalised context-aware ubiquitous learning system for supporting effective English vocabulary learning. Interactive Learning Environments, 18(4), 341–364.

[7] Chen, X., Zou, D., Xie, H., & Cheng, G. (2021). Twenty years of personalized language learning. Educational Technology & Society, 24(1), 205–222.

[8] Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Earlbaum Associates.

[9] Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. Journal of Applied Psychology, 78(1), 98.

[10] Du, M. C. (2004). Personalized annotation management for web based learning service (Unpublished master thesis). National Central University, Chungli, Taiwan.

[11] Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. Psychological Science in the Public Interest, 14(1), 4–58.

[12] Finn, J. D., & Zimmer, K. S. (2012). Student engagement: What is it? Why does it matter? Handbook of research on student engagement (pp. 97–131). Springer.

[13] Fredricks, J. A., Reschly, A. L., & Christenson, S. L. (Eds.). (2019). Handbook of student engagement interventions: working with disengaged students. Academic Press.

[14] Kuder, G. F., & Richardson, M. W. (1937). The theory of the estimation of test reliability. Psychometrika, 2(3), 151–160.

[15] Lian, A. P., & Sangarun, P. (2017). Precision Language Education: A Glimpse Into a Possible Future. GEMA Online Journal of Language Studies, 17(4).

[16] Lin, C. F., Yeh, Y. C., Hung, Y. H., & Chang, R. I. (2013). Data mining for providing a personalized learning path in creativity: An application of decision trees. Computers & Education, 68, 199–210.

[17] Lindsey, R. V., Shroyer, J. D., Pashler, H., & Mozer, M. C. (2014). Improving students' long-term knowledge retention through personalized review. Psychological Science, 25(3), 639–647.

[18] Ma, J., Cheng, J., & Han, X. (2017, December). Initial development process of a student engagement scale in blended learning environment. In 2017 International Conference

of Educational Innovation through Technology (EITT) (pp. 234–237). Osaka, Japan: IEEE. https://doi.org/10.1109/EITT.2017.63.

[19] McDaniel, M. A., Thomas, R. C., Agarwal, P. K., McDermott, K. B., & Roediger, H. L. (2013). Quizzing in middle-school science: Successful transfer performance on classroom exams. Applied Cognitive Psychology, 27, 360–372. https://doi.org/10.1002/acp.2914

[20] Mercer, S. (2019). Language learner engagement: Setting the scene. Second handbook of English language teaching, 643–660.

[21] Murphy, M., Redding, S., & Twyman, J. (Eds.). (2016). Handbook on personalized learning for states, districts, and schools. IAP.

[22] Namaziandost, E., & Çakmak, F. (2020). An account of EFL learners' self-efficacy and gender in the Flipped Classroom Model. Education and Information Technologies, 25(5), 4041–4055.

Cite this article as :