

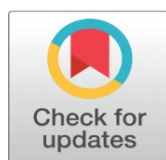
# A QUALITATIVE STUDY ON THE EFFECTIVENESS OF TEACHER-STUDENT COMMUNICATION STRATEGIES IN ASYNCHRONOUS ONLINE TEACHING: STUDENT PERSPECTIVES ON SELF-ESTEEM AND ACADEMIC PERFORMANCE

Bhawna Mathur <sup>1</sup>, Dr. Neetu Mishra Shukla <sup>2</sup>, Dr. Indu Kumar <sup>3</sup>

<sup>1</sup> Research Scholar, AIE, Amity University Uttar Pradesh, Noida, India

<sup>2</sup> Associate Professor, AIE, Amity University Uttar Pradesh, Noida, India

<sup>3</sup> Professor, CIET, NCERT, New Delhi, India



DOI

[10.29121/shodhkosh.v5.i3.2024.5216](https://doi.org/10.29121/shodhkosh.v5.i3.2024.5216)

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**Copyright:** © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](#).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



## ABSTRACT

The transformative influence of technology has significantly altered the global educational landscape since the 1990s. Notably, the integration of online learning has become pervasive across diverse learning environments, encompassing formal and informal settings, academic and non-academic spheres, as well as residential and remote contexts (Elaish et al., 2019; Garcia et al., 2018; Barrot et al., 2021). The increasing adoption of e-learning tools by educational institutions, teachers, and students has facilitated interactive instructional methods, seamless resource distribution, and enhanced student collaboration and engagement. The evolution of distance learning has been influenced by economic shifts, organizational demands, and the explosive expansion of the Internet. This paradigm shift in education transcends traditional teaching methods, allowing virtual communication between students and educators in a classroom setting without physical encounters. Technological advancements have brought about transformative changes in education, ushering in online and hybrid curricula.

## 1. INTRODUCTION

The transformative influence of technology has significantly altered the global educational landscape since the 1990s. Notably, the integration of online learning has become pervasive across diverse learning environments, encompassing formal and informal settings, academic and non-academic spheres, as well as residential and remote contexts (Elaish et al., 2019; Garcia et al., 2018; Barrot et al., 2021). The increasing adoption of e-learning tools by educational institutions, teachers, and students has facilitated interactive instructional methods, seamless resource distribution, and enhanced student collaboration and engagement. The evolution of distance learning has been influenced by economic shifts, organizational demands, and the explosive expansion of the Internet. This paradigm shift in education transcends traditional teaching methods, allowing virtual communication between students and educators in a classroom setting without physical encounters. Technological advancements have brought about transformative changes in education, ushering in online and hybrid curricula.

The presence of different intervening variables, such as inadequate physical and psychological condition, and other external variables, such as an unhealthy environment, influenced the quality of classroom communication. Online communication platforms can be roughly divided into two categories, such as synchronous and asynchronous communication styles, based on the type of interactions and communication that happen within platforms. Online interactions known as asynchronous communication take place whenever it is most convenient for educators as well as learners. It offers the opportunity to share the course content or topics with frequent interactions when necessary, by the teacher and students, but it does not require real-time involvement. Asynchronous learning systems include web pages, moodles, Google Classroom, Microsoft Teams, WhatsApp, email, discussion forums, Webpages, Web blogs, and MOOCs, among others. Learning platforms that offer asynchronous instruction have a number of benefits. A few of these are beneficial to education, labour and time-saving, cooperative and collaborative, flexible, transparent, affordable, and stress-reduction, among other things. Some of its drawbacks include the absence of real-time engagement and collaboration, low motivation and interpersonal interaction, a strong emphasis on self-discipline, etc. It is possible to recommend careful planning, precise wording, regular instructions and feedback, and the usage of synchronous platforms following a break.

A pivotal aspect of contemporary education is asynchronous online instruction, providing students with flexibility and accessibility. The effectiveness of educators and communication strategies is intricately linked to the success of this instructional modality. This introduction delves into the intricate relationship between communication techniques and asynchronous online learning, emphasizing insights gleaned from various research studies examining academic achievement, personal growth, and self-esteem. In the research conducted by Goodrich (2008), the efficacy of web-based platforms for facilitating interaction and feedback between faculty and students has been substantiated. Various course development systems, such as Blackboard, Moodle, Sakai, eCollege, Angel, and WebCT, have demonstrated their utility in this regard. These online platforms empower instructors to construct academic courses utilizing predefined templates, facilitating direct engagement with students while monitoring their progress. Instructors take charge of threaded discussions, disseminate announcements, and upload diverse course materials and activities. These resources encompass reading assignments, PowerPoint slides, tests, and syllabi, providing learners with on-demand access. Asynchronous discussions, conducted through discussion boards, serve as a means for students and instructors to exchange information and ideas on diverse topics.

## 2. REVIEW OF RELATED LITERATURE

According to a study by Spitzer MWH & Musslick S (2021), pupils' performance in an online learning environment for mathematics was improved in 2020 compared to the previous year due to the closure of schools. The study's findings regarding student performance improvements in online learning settings could be attributed to a number of factors. First, the increasing use of such online learning platforms during the epidemic may have contributed to students' enhanced performance within the software. High school students' academic achievement can rise as a result of more exposure to online learning settings, according to two separate meta-analyses.

A person's attitude towards their entire self, whether positive or negative, is a component of their self-esteem (Rosenberg et al., 1995). It is the total emotional assessment of one's own value or self-worth (Burrus & Brenneman, 2016). While low self-esteem results from negative assessments and subjective shortcomings, high self-esteem is defined as a highly positive global estimate of one's own competence in subjectively significant categories (Harter, 1990a). Within the hierarchical Shavelson model of self-concept (Shavelson, Hubner, & Stanton, 1976), the most general level of self-concept is represented by self-esteem, with underlying domains such as physical and academic self-concept. Research on the relationship between academic achievement and self-esteem has yielded numerous findings, including minor yet noteworthy positive associations (Bowles, 1999; Davies & Bremner, 1999; Hansford & Hattie, 1982).

Xhomara, N. & Karabina, M., 2021 did the research on the Influence of Online Learning on Academic Performance and Students Satisfaction and the findings utilising Analysis of Variance (ANOVA) indicate distinct variances in online learning, signifying varying influences on academic performance levels. Approximately 49.7% of academic performance variance is attributable to online learning differences. Additionally, the study confirms that different levels of online learning significantly affect students satisfaction, with approximately 78% of the variance in satisfaction linked to online learning variations. This underscores the substantial role online learning plays in shaping both academic outcomes and student contentment.

Garrison et al., 2000 discussed about the model of Community of Inquiry is the model, which drew inspiration from constructivist learning theories and John Dewey's work, holds that students and teachers engage in a community of inquiry where teaching presence, social presence, and cognitive presence interact to create meaningful learning experiences. According to Garrison et al. (2001), cognitive presence happens in online settings when participants in a community of inquiry build knowledge by ongoing discussion. Learners demonstrate higher order thinking skills, such as critical thinking, in their discussions. According to Garrison (2006), "the ability to project one's self and establish personal and purposeful relationships" is the definition of social presence. Ultimately, thoughtful interaction is needed in order to accomplish educational objectives. Social presence needs to go beyond the expressive and interpersonal ways of social contact that lead to a mutual inquiry and development of new knowledge. Teaching presence is the third and last component of a community of inquiry. To establish the environment while delivering the contents, a teacher must be present. This involves encouraging student discussion with questions and, when necessary, affirmations, as well as planning and structuring goals and resources to promote social engagement (Garrison et al., 2000).

### 3. METHODOLOGY

This is a qualitative study which was conducted with higher secondary school students. This qualitative study employs a rigorous methodology to delve into the intricate dynamics of Teacher-Student Communication Strategies in Asynchronous Online Teaching, specifically examining their impact on student self-esteem and academic performance. A focal point of the research involves students actively participating in focused group discussions, providing a nuanced understanding of their experiences and perceptions. The purposive sampling technique is employed to select participants who have firsthand experience with asynchronous online learning environments. Semi-structured interviews supplement the group discussions, offering in-depth insights into individual perspectives. Thematic analysis is applied to identify recurring patterns and themes within the qualitative data, enhancing the study reliability and validity. The chosen methodology emphasizes the importance of capturing the multifaceted nature of teacher-student communication in the virtual realm, highlighting its influence on both psychological well-being and educational outcomes.

### 4. RESEARCH QUESTIONS

The significance of research questions lies in unravelling the intricate relationship between the various variable. In this study researcher explored teacher-student discourse in asynchronous discussion among and school student learning outcomes. These questions guide investigations into how the structure of online asynchronous lessons influences the creation of a positive learning environment. One of the research questions explored the ease of access to study materials on platforms like Diksha and Kyan, as well as the availability of additional learning resources for the student learning. Another research question was related to the responsiveness of teachers to student queries and concerns within asynchronous online platforms is crucial for optimizing their learning experience. Research questions become essential tools for delving into these aspects, shedding light on effective strategies, and fostering an environment conducive to meaningful teacher-student interactions and enhanced student learning outcomes in the dynamic landscape of online education.

### 5. FINDINGS

Academic performance of school students in the context of asynchronous online teaching reveal a notable trend among respondents. A significant majority, comprising 60% of the participants, reported that asynchronous online learning had a positive impact on their academic performance. These students expressed that the flexibility and accessibility of the asynchronous platform contributed to an enhancement in their learning outcomes. Furthermore, 26% of the respondents indicated a moderate effect on their academic performance, suggesting a balanced perspective on the benefits of asynchronous learning. However, 14% of the participants did not find it helpful, indicating a minority that may prefer other modes of instruction. The asynchronous learning platform provides students with free access to class materials and supplements, empowering them to take control of their learning journey. This approach allows students the freedom to engage with educational content at their own pace, emphasizing autonomy and flexibility as key components of the asynchronous learning experience.

The findings pertaining to the clarity of instructions delivered through various asynchronous methods, including WhatsApp messages, Diksha portal, Kyan Classes, and online quizzes, reveal a diverse range of responses from the participants. Notably, 33% of the respondents expressed that the instructions provided through these platforms were clear, indicating a positive perception of the communication methods employed. The majority of 56% gave a neutral response, indicating that while there was some clarity, there might be opportunity for development or personal interpretation. They also believed that they could comprehend something at times and not at others. Conversely, a relatively small percentage of 12% found the instructions unclear, highlighting a potential need for enhancements in communication strategies. Teachers play a crucial role in ensuring clarity by employing standard language and guiding students on what tasks need to be accomplished and when. Additionally, setting clear deadlines for assignments helps students manage their time effectively and contributes to a smoother asynchronous learning experience.

The research findings pertaining to the frequency of feedback and responses by teachers in the context of asynchronous online teaching reveal valuable insights into the dynamics of instructor-student interactions. The majority of 56% gave a neutral response, indicating that while there was some clarity, there might be opportunity for development or personal interpretation. They Conversely, 32% reported a mixed experience, indicating that feedback is sometimes on time, while in other instances, there may be delays. These findings emphasize the importance of consistent and timely communication in asynchronous learning environments. Instructors should strive to maintain constant contact with their student groups, providing necessary feedback for every response. Frequent feedback not only helps clarify doubts and reinforce learning but also serves as a motivational factor for students, fostering a sense of engagement and commitment to the learning process. The results underscore the significance of responsive and communicative teaching practices in enhancing the overall effectiveness of asynchronous online education.

Online asynchronous teaching for school students has proven to be a favourable approach, as evidenced by a substantial majority of respondents expressing satisfaction. The asynchronous model not only allows flexibility in learning but also plays a crucial role in fostering a positive environment and nurturing self-esteem. Many students reported feeling supported in their learning journey, particularly during online quizzes where they could respond confidently. While a minimal 2% expressed dissatisfaction with the lack of a supportive environment, the majority perceived the asynchronous system positively, highlighting its effectiveness in promoting a conducive atmosphere for concept development and boosting students' self-esteem in the virtual learning landscape.

## 6. DISCUSSION

This research shed light on the effectiveness of teacher-student communication strategies in asynchronous online teaching, with a particular focus on the views of students. The results regarding academic performance unveil a noteworthy trend, indicating that a significant majority of participants reported a positive impact on their learning outcomes within the context of asynchronous online education. Research outcomes indicate that the impact of synchronous and asynchronous teaching environments on student performance is not straightforward. According to Nieuwoudt's study in 2020, the mode of attendance, whether synchronous virtual classes or recorded sessions, did not yield a significant difference in student achievement. Instead, the crucial factor influencing academic success was the total time students spent actively participating and engaging with the online learning system. Additionally, findings from Northey et al. in 2015 suggest that actively participating in both synchronous and asynchronous online learning options leads to higher engagement levels and superior academic outcomes compared to exclusively attending face-to-face classes. In a further investigation, pre- and post-tests were employed by Ogbonna, Ibezim, and Obi (2019) and given to two student groups that were neither randomized nor equivalent. The research was carried out in two Nigerian secondary schools. The results of this study demonstrate that teaching word processing to students via synchronous and asynchronous e-learning modes improved their academic accomplishment in word processing on a cognitive level. According to the results, students who received instruction via asynchronous online learning outperformed those who received instruction via synchronous online learning in terms of cognitive achievement. In conclusion, asynchronous learning demonstrates notable benefits for student academic performance and self-esteem. The flexibility it offers allows students to engage at their own pace, fostering a positive environment for concept mastery and contributing to heightened self-esteem in the virtual learning landscape.



## CONFLICT OF INTERESTS

None.

## ACKNOWLEDGMENTS

None.

## REFERENCES

- Fabriz, S., Mendzheritskaya, J., & Stehle, S. (2021). Impact of synchronous and asynchronous settings of online teaching and learning in higher education on students' learning experience during COVID-19. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.733554>
- Nieuwoudt, J. E. (2020). Investigating synchronous and asynchronous class attendance as predictors of academic success in online education. *Australasian J. Educ. Technol.* 36, 15–25. doi: 10.14742/ajet.5137
- Northey, G., Bucic, T., Chylinski, M., and Govind, R. (2015). Increasing student engagement using asynchronous learning. *J. Mark. Educ.* 37, 171–180. doi: 10.1177/0273475315589814
- Amiti, Flora. Synchronous And Asynchronous E-Learning. *European Journal of Open Education and E-learning Studies*, [S.l.], v. 5, n. 2, sep. 2020. ISSN 25019120. Available at:<https://oapub.org/edu/index.php/ejoe/article/view/3313/5949>. Date accessed: 11 jan. 2024. doi:<http://dx.doi.org/10.46827/ejoe.v5i2.3313>.
- Ogbanna, C. G., Ibezim, N. E., & Obi, C. A. (2019). Synchronous versus asynchronous e-learning in teaching word processing: An experimental approach. *South African Journal of Education*, 39(2), 1-15. Retrieved June 30, 2020, from <http://www.sajournalofeducation.co.za/index.php/saje/article/view/1383/868>
- Online Teaching and Learning: Student-Student and Teacher-Student Discourse for Student Learning in Asynchronous Discussions of High School Courses. (2009). Falls Church, Virginia University.
- Elaish, M., Shuib, L., Ghani, N., & Yadegaridehkordi, E. (2019). Mobile English language learning (MELL): A literature review. *Educational Review*, 71(2), 257–276.
- Garcia, R., Falkner, K., & Vivian, R. (2018). Systematic literature review: Self-regulated learning strategies using e-learning tools for computer science. *Computers & Education*, 123, 150–163.
- Barrot, J.S., Llenares, I.I. & del Rosario, L.S. Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Educ Inf Technol* 26, 7321–7338 (2021). <https://doi.org/10.1007/s10639-021-10589-x>
- Spitzer MWH, Musslick S (2021) Academic performance of K-12 students in an online-learning environment for mathematics increased during the shutdown of schools in wake of the COVID-19 pandemic. *PLOS ONE* 16(8): e0255629. <https://doi.org/10.1371/journal.pone.0255629>
- Scherrer, V., & Preckel, F. (2019). Development of Motivational Variables and Self-Esteem During the School Career: A Meta-Analysis of Longitudinal Studies. *Review of Educational Research*, 89(2), 211-258. <https://doi.org/10.3102/0034654318819127>
- Burrus J., Brenneman M. (2016). Psychological skills: Essential components of development and achievement in K-12. In Lipnevich A. A., Preckel F., Roberts R. D. (Eds.), *Psychological skills and school systems in the 21st century* (pp. 3–27). Basel, Switzerland: Springer International. Crossref
- Rosenberg M., Schooler C., Schoenbach C., Rosenberg F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 60, 141. Crossref
- Shavelson R. J., Hubner J. J., Stanton G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, 46, 407–441. Crossref Crossref. ISI.
- Harter S. (1990). Causes, correlates, and the functional role of global self-worth: A life-span perspective. In Sternberg R. J., Kolligian J. (Eds.), *Competence considered* (pp. 67–97). New Haven, CT: Yale University Press.