FarDU.
ILMIY
XABARLAR

**2024/6-SON
ILOVA TO'PLAM**

НАУЧНЫЙ
ВЕСТНИК.
ФерГУ

IQTISODIYOT

FALSAFA

SIYOSAT

COMPARATIVE ANALYSIS OF ONLINE AND TRADITIONAL CLASSROOM LEARNING.

ONLAYN VA AN'NAVIY TA'LIMLARNI QIYOSSIY TAHLILI.

СРАВНИТЕЛЬНЫЙ АНАЛИЗ ОНЛАЙН- И ТРАДИЦИОННОГО ОБУЧЕНИЯ.

Pakirdinova Sharofat Abdumutaljonovna (ID)
Farg'ona davlat universiteti, katta o'qituvchi

Abstract

The rise of the online learning modality has transformed the educational landscape, providing flexibility and convenience, but calls into question its efficacy when compared to the more traditional form of physical interaction with students. This article investigates to address this gap by juxtaposing these internalization strategies with the help of relevant theories, empirical data and important findings. The paper examines the cognitive, constructivist and socio-cultural approaches in order to highlight the strengths and weaknesses of online and classroom teaching. Finally, the article integrates the findings of several studies to reflect the relationship between particular approaches used and the students' academic performance and involvement in the learning process.

Annotatsiya

Onlayn ta'limning paydo bo'lishi moslashuvchanlik va qulaylikni ta'minlash orqali ta'lim muhitini o'zgartirdi, ammo talabalar bilan yuzma-yuz o'zaro aloqaning an'anaviy shakliga nisbatan uning samaradorligini. Ushbu maqola yuzaga kelayotgan muammoli vaziyatlarni tegishli nazariyalar, dalillar va ilmiy topilmalar orqali ushbu bo'shliqni bartaraf etishga harakat qiladi. Shuningdek, maqola bir nechta tadqiqotlar natijalarini birlashtirib, qo'llanilgan aniq yondashuvlar va talabalarning akademik samaradorligi va o'qishga jalb etilishi o'rtasidagi bog'liqlikni aks ettiradi. Maqolada onlayn va an'anaviy yani sinfda o'qitishning kuchli va zaif tomonlarini ta'kidlash uchun kognitiv, konstruktivistik va ijtimoiy-madaniy yondashuvlar ko'rib chiqiladi.

Аннотация

Появление онлайн-образования изменило образовательную среду, обеспечив гибкость и удобство, а также ее эффективность по сравнению с традиционной формой очного взаимодействия со студентами. В данной статье делается попытка восполнить этот пробел с помощью соответствующих теорий, фактических данных и научных выводов о возникающих проблемных ситуациях. В статье также объединены результаты нескольких исследований, чтобы показать взаимосвязь между конкретными используемыми подходами и академической успеваемостью студентов и их вовлеченностью в обучение. В статье рассматриваются когнитивные, конструктивистские и социокультурные подходы, чтобы подчеркнуть сильные и слабые стороны онлайн-обучения и традиционного обучения в классе.

Key words: *online learning, traditional classroom learning, constructivism, community of inquiry framework, student engagement, social presence, teaching presence.*

Kalit so'zlar: *onlayn ta'lim, an'anaviy sinfda o'rganish, konstruktivizm, so'rovlar tuzilmasi, talabalarning faolligi, ijtimoiy ishtirok, o'qituvchi ishtiroki.*

Ключевые слова: *онлайн-обучение, традиционное обучение в классе, конструктивизм, структура исследовательского сообщества, вовлеченность студентов, социальное присутствие, преподавательское присутствие.*

INTRODUCTION

As technology has developed rapidly over the past several decades and the demand for distance education has risen, to a remarkable extent, the transition to learning conducted online has been conspicuous among their students. While educational institutions and educators are adopting more digital approaches and virtual classrooms, the question must be raised about the efficiency of this form of education in comparison with the conventional face-to-face interactions. It is possible to develop possible solutions for the future of education by considering the strengths and weaknesses of each method. This article looks at the core relationships of basic learning theories, looks into some actual comparisons between the two methods, and looks into the technological, social and cognitive factors determining how well students learn. Cognitive Load Theory (CLT) has important implications in determining the relative worth of conducting classes

online. Sweller [9] has defined the concept of cognitive overload as the amount of mental resources needed to acquire new information. Attempting to reach the set goals during class allows learners to expect a rapid return of response, view non-verbal signals, and engage in other non-verbal interactions that help reduce cognitive strain. Conversely, the online context may in some cases increase cognitive load due to lack of high levels of social presence, which requires higher cognitive resources to meet navigate the online interfaces. Studies suggest that learners' cognitive overload in synchronous online learning (live classes) is less than asynchronous methods which may demand greater self regulation. Moreover, the use of multimedia in an online course can either reduce cognitive load or increase it owing to how it is developed.[5]

Constructivism both Piaget and Vygotsky [11] emphasize the importance of learners constructing knowledge by actively engaging in the social processes of learning. Education in person naturally fosters these practices because students can join arguments, respond to the teacher in real time and interact with their classmates. Yet, it is also possible to get a comparable effectiveness with regard to online learning if practicing elements such as collaboration, feedback from peers or problem based learning is used. Garrison et al. [3] study the application of constructivist principles and argue that, online learning environments designed with such principles can sustain the learner-professors relationship interaction. The Community of Inquiry Framework is one of the most frequently used models to study online learning. It claims that learners in the digital environment are motivated by the combination of three elements which are: cognitive presence, social presence and teaching presence.

METHODS

This study adopts a qualitative research approach, reviewing relevant empirical studies and theoretical frameworks related to online and in-person learning. Data is gathered from various academic sources, including research articles, meta-analyses, and case studies. The paper compares the effectiveness of online learning and face-to-face teaching by examining factors such as cognitive load, student engagement, and learning outcomes. The study also explores the application of constructivist principles and their impact on the design of online learning environments.

RESULTS

A) Cognitive presence refers to the extent to which learners are able to construct meaning through sustained reflection and discourse. It involves several stages: *Triggering event*, learning often begins with a problem or question that prompts inquiry as a case study, a provocative question, or a real-world challenge that requires critical thinking. *Exploration*, triggering event occurs, learners engage in exploration. It involves gathering information, discussing ideas with peers, and considering multiple perspectives.Moreover, effective exploration encourages learners to dig deeper into the subject matter, fostering curiosity and critical analysis. *Integration*, learners synthesize their findings, connecting new knowledge with existing understandings. It might involve collaborative discussions where learners share insights and build on each other's contributions. The last stage is *Resolution* where learners apply their newly constructed knowledge to solve problems or make decisions. This could take the form of a project, presentation, or written reflection that demonstrates their understanding. Cognitive presence is crucial for deep learning and transforms information into knowledge through active engagement and critical thinking.

B) Social Presence is the degree to which participants in a learning environment feel socially and emotionally connected to one another. It encompasses several key elements such as *Identity expression*. It allows learners feel comfortable expressing their personalities, opinions, and emotions. This can be facilitated through informal interactions, sharing personal stories, or using multimedia tools like photos and videos. When learners see each other as real individuals rather than just usernames or avatars, it fosters a sense of community. Next, *building relationship* is crucial for effective collaboration. When participants engage in discussions, provide feedback, and support one another, they create a network of trust. Consequently, It encourages open communication and enhances motivation. *Group work* contributes to a sense of belonging within the group. Activities that promote teamwork, such as group projects or discussion forums, help reinforce students interaction. When learners feel they are part of a community, they are more likely to participate actively and contribute to discussions. Social presence not only enhances engagement but also plays a vital role in reducing feelings of isolation that can sometimes accompany online learning.

C) Teaching Presence is the foundation of the Community of Inquiry framework, encompassing the design, facilitation, and direction of the educational experience. *Lesson plan and organization* involves creating clear learning objectives, selecting appropriate materials, and structuring activities that promote engagement. A well-organized lesson helps learners navigate content smoothly and understand expectations. Teaching presence is also about guiding discussions and encouraging participation. Instructors can facilitate by posing thought-provoking questions, summarizing key points, and providing constructive feedback. This active involvement helps maintain momentum in conversations and keeps learners engaged. While the emphasis in online learning is often on learner autonomy, there are times when direct instruction is necessary and involve providing explanations of complex concepts, offering additional resources, or clarifying misunderstandings.

It ensures that learners feel supported throughout their educational journey. It bridges the gap between social and cognitive presence by creating an environment conducive to meaningful learning experiences. Additionally, comprehending and applying The Community of Inquiry framework can remarkably enhance blended learning experiences. By encouraging communication, cognitive engagement and ensuring effective teaching practices instructors can create positive, collaborative environment that empowers learners to accomplish their maximum potential. High degrees of social and instructional presence are inherent in in-person classes because students can ask questions and get prompt answers. Online settings, on the other hand, can find it difficult to preserve these features unless they are purposefully designed. Research by Shea et al. [10] indicates that effective integration of social, teaching, and cognitive presences can lead to successful online learning experiences. Empirical Research on the Effectiveness of Online vs. In-Person Learning and Learning Outcomes Although the effect magnitude was moderate, Means et al. [6] found that 1,000 studies on online learning showed that, on average, online learners outperformed their in-person counterparts. This implies that course design, instructor engagement, and students' capacity for self-regulation all have a significant role in how effective online learning is.

According to Means et al. [6] 1,000 studies on online learning, revealing that, on average, online learners performed better than their in-person counterparts, though the effect size was moderate. This suggests that online learning's effectiveness largely hinges on course design, the level of instructor engagement, and students' self-regulation abilities. Similarly, Zhao et al. [12] found that online learners, particularly in well-structured courses with significant interaction, performed equally well or better than those in traditional classrooms. However, traditional students often experienced more social and peer interactions, which are vital for engagement and learning.

DISCUSSION

According to the study's findings, online learning can be just as successful as traditional in-person instruction if it is planned with the right cognitive, social, and instructional presence. Students' engagement and cognitive presence are improved by online courses that include interactive features like discussion boards, live sessions, and group assignments. Face-to-face instruction is still beneficial, though, for encouraging social interactions, giving prompt feedback, and developing nonverbal communication.

Student Engagement and Satisfaction

Research by Arbaugh [1] underscores the significance of student engagement in online education. Students in online courses report higher satisfaction when interactive components are included, such as discussion boards, quizzes, and live sessions. Nevertheless, in-person learning usually promotes more natural and sustained engagement due to immediate interactions and feedback. Bernard et al. [2] demonstrated that face-to-face students showed higher levels of social engagement, which are frequently linked to motivation and retention. The lack of prompt social interaction in online formats may lead to feelings of isolation, although tools like video conferencing can help alleviate this issue.

Access, Flexibility, and Equity

A major benefit of online learning is its ability to improve educational access for students across varied geographical locations or those facing time constraints. It allows working professionals and international students to study without needing to relocate or follow strict schedules. The flexibility of online courses enhances accessibility and equity. Conversely,

traditional learning presents fewer logistical challenges but may create equity concerns for those unable to attend due to disabilities, familial obligations, or location. One of the effective sides of Face-to-Face Learning is providing immediate feedback. By this Students benefit from real-time responses, allowing for clearer comprehension and timely clarification of concepts. It also improves social interaction, facilitating peer collaboration and community building and non-verbal communication. Aspects like body language, tone, and facial expressions enhance understanding through richer communication. The inflexible scheduling and location constraints of traditional learning can limit access for some students.

CONCLUSION

Both online and traditional classroom learning come with obvious advantages and challenges. Their success based on the careful integration of educational theories and methodologies. When online education incorporates interactive and collaborative elements, it can match the effectiveness of conventional face-to-face teaching. Furthermore, the growing flexibility and accessibility of online learning create new opportunities for students globally. Nevertheless, in-person learning is crucial for developing interpersonal connections, providing immediate feedback, and facilitating meaningful non-verbal communication, all of which enhance the educational process. Future educational strategies should explore a hybrid approach that combines the strengths of both online and traditional methods, leading to a richer and more inclusive learning experience.

REFERENCES

1. Arbaugh, J. B. (2005). Does the community of inquiry framework predict outcomes in online MBA courses? "International Review of Research in Open and Distributed Learning", 6(1), 1-18. https://doi.org/10.19173/irrodl.v6i1.174

2. Bernard, R. M., Abrami, P. C., Borokhovski, E., Wade, C. A., Wozney, L., Fiset, M. (2004). How does distance education compare with classroom instruction? A meta-analysis of the empirical literature. "Review of Educational Research", 74(3), 379-439. https://doi.org/10.3102/00346543074003379

3. Garrison, D. R., Anderson, T., Archer, W. (2000). Critical thinking, cognitive presence, and computer conferencing in distance education. "American Journal of Distance Education", 15(1), 7-23. https://doi.org/10.1080/08923640009527071

4. GARRISON, D., & ANDERSON, T. (2004). A framework for research and practice. Journal of Distance Learning, 8(1).

5. Mayer, R. E. (2009). "Multimedia learning" (2nd ed.). Cambridge University Press.

6. Means, B., Toyama, Y., Murphy, R., Bakia, M., Jones, K. (2010). "Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies." U.S. Department of Education. ttps://doi.org/10.1037/e530272011-001

7. Paas, F., Tuovinen, J. E., Tabbers, H., Van Merriënboer, J. J. G. (2003). Cognitive load measurements as a means to advance cognitive load theory. "Educational Psychologist", 38(1), 63-71. https://doi.org/10.1207/S15326985EP3801_8

8. Piaget, J. (1970). "The science of education and the psychology of the child". Orion Press.

9. Sweller, J. (1988). "Cognitive load during problem solving: Effects on learning." Cognitive Science, 12(2), 257-285. https://doi.org/10.1207/s15516709cog1202_4.

10. Shea, P., Sau Li, C., & Pickett, A. (2006). A study of teaching presence and student sense of learning community in fully online and web-enhanced college courses. The Internet and Higher Education, 9(3), 175–190.

11. Vygotsky, L. S. (1978). "Mind in society: The development of higher psychological processes" Harvard University Press.

12. Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The Mediating Role of Self-Eddicacy in the Development of Entrepreneurial Intentions. Journal of Applied Psychology, 90, 1265-1272. https://doi.org/10.1037/0021-9010.90.6.1265