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ANALYSIS OF EFFECTS OF BLENDED LEARNING ON PERFORMANCE, ATTITUDE, ACHIEVEMENT AND ENGAGEMENT ACROSS EDUCATIONAL PROCESS

Annotation

This study seeks to assess how effective blended learning is in teaching. This paper investigates the effectiveness of a blended learning environment through analyzing the relationship between student characteristics/background, design features and learning outcomes. A survey was administered to 165 respondents to gather data on student characteristics/background, design features and learning outcomes. The final evaluation results were used as a measure for performance as an outcome. The subjects of the research are the students and teachers of English Philology faculty, at Uzbekistan State World Languages University, Tashkent.

Key words: blended learning, information technology, methodology, e-learning, traditional education.

ARALASH TA'LIMNING TA'LIM JARAYONIDAGI SAMARADORLIK, MUNOSABAT, MUVAFFAQIYAT VA FAOLLIKKA TA'SIRI TAHLILI

Annotatsiya

Ushbu tadqiqot aralash ta'limning o'qitishda qanchalik samarali ekanligini baholashga intiladi. Ushbu maqola talabalarning o'ziga xos xususiyatlari/fonlari, dizayn xususiyatlari va ta'lim natijalari o'rtasidagi munosabatlarni tahlil qilish orqali aralash ta'lim muhitining samaradorligini o'rganadi. Talabalarning xususiyatlari/fonlari, dizayn xususiyatlari va ta'lim natijalari bo'yicha ma'lumotlarni to'plash uchun 165 respondentga so'rovnomma o'tkazildi. Yakuniy baholash natijalari natija sifatida ishlash uchun o'lchov sifatida ishlatilgan. Tadqiqot ob'ektlari Toshkent shahridagi O'zbekiston davlat jahon tillari universiteti ingliz filologiyasi fakulteti talabalari va o'qituvchilari.

Kalit so'zlar: aralash ta'lim, axborot texnologiyalari, metodologiya, elektron ta'lim, an'anaviy ta'lim.

АНАЛИЗ ВЛИЯНИЯ СМЕШАННОГО ОБУЧЕНИЯ НА УСПЕВАЕМОСТЬ, ОТНОШЕНИЕ, ДОСТИЖЕНИЯ И ВОВЛЕЧЕННОСТЬ В ОБРАЗОВАТЕЛЬНЫЙ ПРОЦЕСС

Аннотация

Целью данного исследования является оценка эффективности смешанного обучения в преподавании. В этой статье исследуется эффективность смешанной среды обучения посредством анализа взаимосвязи между характеристиками/образованием учащихся, конструктивными особенностями и результатами обучения. Опрос был проведен среди 165 респондентов для сбора данных о характеристиках/образовании учащихся, конструктивных особенностях и результатах обучения. Итоговые результаты оценки использовались в качестве меры эффективности как результата. Объектом исследования являются студенты и преподаватели факультета английской филологии Узбекского государственного университета мировых языков, г. Ташкент.

Ключевые слова: смешанное обучение, информационные технологии, методология, электронное обучение, традиционное образование.

Introduction. During the unique circumstances of the pandemic, blended learning has gained significant popularity. However, there is a lack of comprehensive studies that evaluate the effectiveness of blended learning in various countries. Therefore, it is essential and valuable to assess the impact of blended learning globally, particularly in light of the current situation. The teaching and learning environment is embracing a number of innovations and some of these involve the use of technology through blended learning. This innovative pedagogical approach has been embraced rapidly though it goes through a process. The introduction of blended learning (combination of face-to-face and online teaching and learning) initiatives is part of these innovations but its uptake, especially in the developing world faces challenges for it to be an effective innovation in teaching and learning.

“Blended learning” appears to have been in use since the popular advent of the Internet and the World Wide Web in the late 1990s (Friesen, 2012). The BL concept was first proposed in the late 20 century against the backdrop of growing technological innovation (Keogh et al., 2017). Since

2020, the global spread of various forms and models of blended learning has been accelerated due to the widespread lockdowns caused by the Coronavirus pandemic. Over the past four years, students and teachers have experimented with different blended learning approaches, leading to the incorporation of some of these models into mainstream educational methodologies. Literature review recent innovations and advancements have provided an opportunity to develop a unique, independent and technology-facilitated learning environment delivered via e-learning platforms (Omar, N. and Hashim, H., 2021). Most studies positively reported blended learning performances. Performances in this study include the variables: critical thinking skills, knowledge delivery, disposition improvement, knowledge and skill improvement, language use, listening skills, speaking skills, and topic development. Blended learning, outperforming full online learning in the aspects of motivation, attitudes, and satisfaction, can improve nurses' clinical knowledge compared with the traditional learning approach in the UK (McCutcheon et al., 2018). Blended learning can optimize the learning

flexibility in terms of time and space, leading to stable learning performance of undergraduates in The Zurich University in Germany (Mueller et al., 2020). It was revealed that both classroom and online learning could enhance American students' learning performance, but the blended learning brought about the largest gain in performance in the USA (Hill et al., 2017). Blended learning could give rise to significantly higher learning performance than e learning, while the flipped classroom could improve intrinsic motivation and self-efficacy in Can Tho University in Vietnam (Thai et al., 2017).

Numerous studies reported that blended learning was beneficial to language proficiency improvements. Blended learning could greatly improve the reading abilities of children in a kindergarten in the USA (Macaruso et al., 2020). Blended instruction could greatly improve students' English writing abilities in Ankang College, Shanxi China (Zhou, 2018). Blended learning could improve students' English listening and speaking and critical thinking skills, e.g. analysis, inference, evaluation, induction, and deduction in China (Yang et al., 2013). Blended learning could enable Chinese college students to extensively practice with flexible time and space, greatly improving their English reading skills (Yang, 2012).

Blended learning is one of the most modern methods of learning helping in solving the knowledge explosion problem, the growing demand for education and the problem of overcrowded lectures if used in distance learning, expanding the acceptance opportunities in education, being able to train, educate and rehabilitate workers without leaving their jobs and teaching housewives, which contributes to raising the literacy rate and eliminating illiteracy; blended learning increases the learning effectiveness to a large degree, decreases the time environment required for training, decreases the training costs, allows the learner to study at his favorite time and place, allows for live interviews and discussions on the network, provides updated information suiting learners' need, and provides simulations, animations, practical events and exercises and practical applications (Al-Shunnaq and Bani Domi, 2010). During the pandemic era in China, BL was implemented in all universities and colleges. Blending a class video blog into face-to-face instruction could improve language oral proficiency but failed to greatly improve the voluntariness to communication using the target language in China (Liu, 2016). Blended learning can also play a key role in boosting students' willingness to communicate spontaneously in the target language. By incorporating online platforms and resources into the classroom, students can engage in interactive activities, virtual discussions, and collaborative projects that encourage them to use the language in authentic contexts. Additionally, blended learning allows for personalized learning experiences, enabling students to practice speaking skills at their own pace and receive immediate feedback from both peers and instructors. Overall, by combining traditional face-to-face lessons with online components, educators can create a dynamic and supportive environment that motivates students to communicate actively in the target language. Blended learning could effectively facilitate communication skills and improve learning outcomes of nursing tertiary students in Singapore (Shorey et al., 2018).

Achievement. Achievement in blended learning can be defined as the level of success or accomplishment that students attain when participating and completing a blend of online and traditional face-to-face learning activities (Inal and Korkmaz, 2019). This measure of achievement encompasses various learning outcomes, such as improved academic performance, increased engagement, and enhanced critical thinking and problem-solving abilities. In blended learning,

the achievement can be assessed through a variety of methods, including graded quizzes and assignments, class participation, peer evaluations, and self-reflection. Moreover, leveraging learning analytics and data-driven assessment methods can offer valuable insights into students' advancement and furnish instructors with feedback to tailor teaching strategies more effectively. The success of blended learning hinges on the efficacy of instructional design, the caliber of learning materials, and the extent of support extended to students throughout their learning journey. Key achievements in this study encompass exam results, students' comprehension levels, relevance of written content, English proficiency scores, actual grades in academic goal planning tasks, performance in achievement tests, course grades, knowledge levels, knowledge acquisition, student learning outcomes, reading accomplishments, and academic progress.

Many studies reported that blended learning could contribute to higher learning achievements than traditional approaches. Blended learning could give rise to significantly higher academic achievements than traditional face-to-face learning in Canada (Bazelais and Doleck, 2018). Online learning activities could improve students' academic achievements among undergraduate students in University of Granada in Spain, where influencing factors included attendance rate and students' backgrounds rather than the time they spent on learning (López-Pérez et al., 2013; Min and Yu, 2023b). Blended learning via information and communication technologies could significantly improve learning achievements of mechanical couplings in engineering in Spain (Cortizo et al., 2010). A blended and flipped pedagogical approach could improve learning achievements and learning environment and raise the efficiency of space use in the USA (Baepler et al., 2014).

Research questions. Considering the inconsistent findings regarding the influence of blended learning on learners' performance, attitude, achievements, and engagement in universities, we propose four research questions, i.e. (1) Can blended learning positively influence student performance in tertiary system? (2) What are the factors affecting blended learning of students?

The researcher used vivid qualitative and quantitative methods to analyze the data. The researcher collects the data through tests (from students) and interviews (from teachers). The subjects of the research were 140 students and 25 teachers of English Philology faculty, at Uzbekistan State World Languages University, Tashkent.

1. Interview The researcher collected data on. They are 25 teachers of Uzbekistan State World Languages University; they were interviewed about blended learning on learners' performance, attitude, achievements, and engagement in universities;

2. Test. In this observation, the subject of observation is 140 students of Uzbekistan State World Languages University. It is focused on blended learning positively influence students' performance in learning English.

Analysis and results. In analyzing the data, the researcher used the descriptive method. The data reduction is done during research activities. In this case, the researcher would reduce the information during the research activities if the data is unimportant or does not support the data researchers needed.

Discussion. Blended learning has been found to have a positive impact on student outcomes such as performance, attitude, and learning achievement in various countries. This conclusion is supported by the results of questionnaire and testing which mostly demonstrate the positive effects of blended learning on these outcomes. However, it is worth noting that some studies have reported negative effects on student engagement when using a blended learning approach.

Learner outcomes. Learners however reported the value/usefulness of blended learning at 91% with majority believing that studying online and face-to-face had value for them and were therefore willing to take part in blended learning (91.2%). They showed that it is beneficial for them (94%) and that it was an important way of studying (84.3%). Learner *satisfaction* was reported at 81% especially with instructors (85%) high percentage reported on encouraging learner participation during the course of study, course content with the highest being satisfaction with the good relationship between the objectives of the course units and the content, technology with a high percentage on the fact that the platform was adequate for the online part of the learning, interactions with participation in class at 79%, and face-to-face sessions with learner satisfaction high on face-to-face sessions being good enough for interaction and giving an overview of the courses when objectives were introduced at 92%.

The enhanced student performance observed in blended learning can be attributed to several factors. One crucial factor is that students receive instruction in both physical and online environments. In the classroom setting, students are able to ask questions and interact with their peers and teachers for academic issues. Additionally, they receive more individualized attention from their instructors, which encourages them to be more engaged in the learning process. By being asked to answer questions and focus on the course material, students are able to improve their performance (Huang et al., 2022).

Blended learning also provides students with greater access to online resources that they can use to supplement their learning. These resources can include multimedia content, virtual simulations, and interactive quizzes. Consequently, students are able to explore topics more deeply and revisit information whenever they need to. Furthermore, they are able to learn at their own pace and in a location of their choosing, which reduces the burden of travel time and carrying heavy books.

In addition to improving performance and achievement, blended learning has been found to positively impact student attitudes toward learning. The convenience that blended learning offers is a key factor in generating a favorable attitude among students. Students can access learning materials at any time from their device, enabling them to learn wherever they are and at their own pace. This is in contrast to traditional classroom learning where students have to carry heavy textbooks and are restricted to learning only during scheduled class times (Yu et al., 2019).

Moreover, blended learning facilitates online interactions among students, allowing them to work

collaboratively, share opinions, and create a supportive learning environment. This enhances the effectiveness of their learning and promotes a positive attitude toward the blended learning approach. The power of the Internet is fully utilized in blended learning to overcome the limitations of physical classrooms, thereby creating a flexible and engaging learning environment that better meets the needs of students. In addition, blended learning integrates formal instruction with informal learning. As a result, students can benefit from both learning contexts and engage with learning materials from various sources. This approach provides them with more learning resources and diverse learning experiences that enrich their knowledge and broaden their perspectives. The seamless linking of formal instruction and informal learning contributes to a student-centered approach to blended learning that enhances attitudes toward learning.

Conclusion. In this comprehensive analysis, researchers investigated the efficacy of blended learning versus traditional, non-blended methods in diverse global settings, focusing on performance, attitude, achievement, and engagement. Overall, the results indicated that blended learning could enhance performance, attitude, and achievement across many countries. However, in terms of student engagement in academic activities, findings from China and the USA showed no significant difference between blended and non-blended approaches. Interestingly, in the USA, there were no notable disparities in student performance between the two methods. While blended learning shows promise in various aspects, it may not be universally suitable for all students or environments. Therefore, educators should carefully assess their students' needs and the learning context before deciding on the adoption of a blended approach.

Future Research Directions. Effective teaching in both blended and non-blended learning environments necessitates specific instructions that promote collaboration and practice. This guidance can help students comprehend the advantages and challenges associated with each approach, ultimately leading to enhanced learning outcomes (Monteiro and Morrison, 2014). Despite the increasing popularity of blended learning in the twenty-first century, especially during the COVID-19 pandemic, research on its effectiveness across different countries remains limited. Future studies can broaden this research to explore blended learning strategies in diverse global contexts. By investigating the efficacy of blended learning in various settings, educators can acquire valuable insights and enhance teaching practices to better cater to their students' needs. Conducting such research is crucial to ensure that students receive

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