

THE EFFECTIVENESS OF BLENDED LEARNING METHODS IN IMPROVING HIGH SCHOOL STUDENT LEARNING OUTCOMES

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Abstract

The Blended Learning method that integrates face-to-face instruction with online components has been analyzed to evaluate its effectiveness in improving learning outcomes in Senior High School students. This literature study has been conducted through the collection and analysis of various relevant sources, including academic journals, articles, and previous studies related to the implementation and outcomes of the blended learning method. The analysis shows that Blended Learning allows for more flexible and accessible learning, and provides a more personalized approach to students. It gives students more control over the time, place, and pace of their learning. Factors such as the availability of online learning materials, increased interactivity between students and teachers, and collaboration between students are described as having a positive impact on learning motivation and understanding of the material. In line with that, this literature study also highlights the importance of the role of teachers in designing and implementing effective learning and the challenges that may be faced, including the need for adequate technology training for teachers and students. Further research is recommended to identify specific strategies in curriculum adjustment that can further optimize the learning process and to evaluate the long-term impact of this method on students' academic competence. Taking into account the various factors identified, this study confirms that Blended Learning can effectively improve the learning outcomes of Senior High School students when implemented with appropriate strategies and sufficient support.

Keywords: Learning Methods, Blended Learning, Learning Outcomes, High School

INTRODUCTION

In the era of globalization and rapid technological advances, education has undergone many significant changes, especially in terms of teaching methods. Blended Learning, or blended learning, has become one of the most discussed methods in the last decade. It is a combination of traditional face-to-face learning with online learning, utilizing technological advances to create a flexible and efficient learning environment (Ponta et al., 2022). At the High

School (SMA) level, where students are in a critical transition phase towards higher education or the world of work, the implementation of Blended Learning offers significant potential to improve the effectiveness of teaching and the quality of learning outcomes (Abd et al., 2022).

The shift in the needs of modern students who increasingly want flexibility and the availability of diverse learning resources, makes Blended Learning a very relevant solution. In addition, by utilizing technology, teachers are able to present learning materials more creatively and interactively, which can ultimately increase students' learning motivation. However, the implementation of Blended Learning at the high school level requires a deep understanding of how to integrate technology into the existing curriculum, without eliminating the essence of direct interaction between teachers and students which is also important (Limbong & Lumbantoruan, 2022).

Research on the effectiveness of Blended Learning at the high school level is very important, considering the variation in its implementation which can be very diverse depending on many factors, including the available technological infrastructure, the digital skills of teachers and students, and the learning model used. The question of how effective Blended Learning is in improving student learning outcomes, and under what conditions this method is most optimal, remains a topic that needs further exploration (Liwanag & Galicia, 2023). Therefore, this study is intended to provide data and analysis that can help in designing and implementing effective Blended learning strategies at the high school level.

On the other hand, resistance to change and challenges in designing appropriate learning materials for the Blended Learning model are also aspects that cannot be ignored. The difficulty in accurately measuring the effectiveness of blended learning compared to traditional methods makes comprehensive research very important. This includes an analysis of how students interact with learning materials in online and face-to-face environments, and how these learning experiences affect their understanding of the material and overall learning outcomes (Kurniawan et al., 2022).

In this context, research on the effectiveness of the Blended Learning method at the high school level is not only important from an academic perspective, but also a practical one. By understanding the factors that influence the success of Blended Learning implementation, educators and policy makers can design more effective strategies to improve the quality of education. This will ultimately equip students with more solid knowledge and

skills, which not only include academic materials, but also the ability to utilize technology as an integral part of their learning process (Djuwita et al., 2022).

Facing the challenges of adapting to the Blended Learning method, high schools are looking for ways to effectively integrate technology into the teaching and learning process. This transition certainly changes not only the way teachers teach, but also the way students learn. The effectiveness of this method at the high school level is a focus because at this age, students are starting to be required to be more independent in learning (Hasan, 2022). Therefore, research on blended learning at the high school level not only tests the effectiveness of the method in improving academic grades, but also in developing students' learning independence.

One important aspect of Blended Learning is its ability to provide access to a wider range of educational resources and flexibility in the arrangement of learning time. This is very much in line with the lives of today's students who often have to balance academic activities with other activities. The adaptive nature of Blended Learning helps students manage their learning time more efficiently. However, this also raises questions about how effective this arrangement is in maintaining student engagement and meeting individual learning needs (Magbanua & Bearneza, 2023).

The effectiveness of the Blended Learning method on learning outcomes also depends heavily on the quality of the online materials provided. Materials that are less interactive or do not meet the needs of students can reduce the overall effectiveness of learning (Ninsiana et al., 2024). Therefore, good content development and easily accessible platforms are key to the successful implementation of this method. Continuous evaluation of the quality of blended learning materials and the technological tools used is important to ensure that the learning process remains effective and relevant.

In addition, the teacher's ability to manage and integrate Blended Learning also determines the success of this method. Teachers must have sufficient technological understanding and the ability to compile and evaluate digital learning materials. Teacher training is very crucial in the preparation and implementation of effective Blended Learning. In fact, teacher resistance to the use of technology in learning is often a barrier to the adoption of this method in many schools (Puspita & Tirtoni, 2023).

Ultimately, research on the effectiveness of Blended Learning in high schools aims to formulate recommendations that can help schools adapt this method more effectively. By taking data from various schools that have

implemented Blended Learning, this study is expected to offer insights into best practices and challenges that are often faced (Khadam et al., 2024). Through comprehensive research, we can better understand the role of technology in today's education and optimize its use to support students' academic achievement at the high school level.

RESEARCH METHOD

The study in this study is qualitative with literature. The literature study research method is a research approach that involves the analysis and synthesis of information from various literature sources that are relevant to a particular research topic. Documents taken from literature research are journals, books and references related to the discussion to be studied (Earley, M.A.2014; Snyder, H.2019).

RESULT AND DISCUSSION

Implementation of Blended Learning Method at Senior High School (SMA) Level

The implementation of the Blended Learning method at the Senior High School (SMA) level prioritizes a combination of face-to-face learning and online learning that can improve the quality of education. In today's digital era, high school students are very familiar with the use of technology, so the integration of technology in learning is expected to be something natural and increase student engagement. Through Blended Learning, students are given the opportunity to learn at their own pace, making room for a deeper understanding of the material being taught (ARCETA, 2023). On the other hand, direct interaction with teachers and classmates still allows for direct guidance and reinforces concepts that have been learned online.

One of the keys to the successful implementation of this method is effective curriculum design, where online and face-to-face materials must complement each other. In designing a Blended Learning curriculum, teachers can use online materials to introduce basic concepts or theories, so that face-to-face time can be more focused on in-depth discussions, project implementation, and activities that require critical thinking skills (Guerrero et al., 2023). The implementation of this strategy allows teachers to use class time more efficiently, as well as provide students with opportunities for independent learning through online materials that they can access anytime and anywhere.

Technology also plays an important role in the implementation of Blended Learning in high schools. A good Learning Management System (LMS) platform is essential to ensure easy access and effective interaction between teachers and students. This platform allows teachers to provide learning materials, assignments, and feedback, as well as monitor students' learning progress in real time (Samson et al., 2023). In addition, the use of interactive tools such as online quizzes, discussion forums, and short videos can increase student engagement and facilitate collaborative learning.

However, the presence of challenges in implementing Blended Learning cannot be avoided. One of the biggest challenges is ensuring the readiness and willingness of teachers to adopt this method, considering the need for special skills in designing and managing blended learning. Professional training for teachers is very important in overcoming this challenge. In addition, equal access to technology for all students is also a concern, considering that not all students have adequate internet access or devices at home. Creative solutions and an integrated approach between schools, government, and communities are needed to overcome these obstacles and ensure the success of Blended Learning at the high school level (Stanley, 2022).

Given these challenges, close collaboration between all stakeholders is fundamental. This includes cooperation between schools, government, parents, and communities to ensure adequate infrastructure and resources to support the implementation of Blended Learning. For example, schools can partner with local technology companies to provide learning devices for students in need, while the government can assist with subsidies or allocation of funds for internet infrastructure in underserved areas (Mulyadi et al., 2024). This collaboration demonstrates a shared commitment to improving the quality of education through the use of technology, with special attention to inclusivity and accessibility.

Another important challenge to consider is assessing the effectiveness of Blended Learning methods on an ongoing basis. This relates to how student grades are measured, how progress compares to traditional learning methods, and how feedback from students and teachers is used to continually improve the learning process. Ongoing evaluation allows schools to adjust strategies and find what works best for their community, ensuring that learning remains relevant and engaging for students (Anida et al., 2024). Initiatives such as regular surveys and focus groups can provide valuable

insights into students' and teachers' perceptions of blended learning, and how their experiences can be improved.

Adapting to change is a key aspect of the learning process. Blended Learning requires constant adaptation, not only from students who need to adjust to new learning models, but also from teachers who need to continuously develop their teaching methods. Continuous training and professional development for teachers is essential, ensuring that they feel supported and can maximize the full potential of blended learning. Teachers must also be reminded that technology is not a substitute for them but a tool that can enhance their teaching, enrich students' learning experiences, and make learning more interactive and engaging (MUTYA & MASUHAY, 2023).

The implementation of Blended Learning in high schools effectively offers an opportunity to redefine teaching and learning in the 21st century. It is not just about using technology in learning, but rather designing learning experiences that enhance students' skills to prepare for a changing world. With the challenges and solutions that have been identified, strategic steps can be taken to ensure that the implementation of this method produces maximum results (Bozhko et al., 2023). This approach method focuses not only on academic results, but also on developing students' life skills, preparing them not only for exams, but for the future.

Improving Student Learning Outcomes as an Impact of Using Blended Learning

The use of Blended Learning has shown a positive impact on improving student learning outcomes. This learning approach combines traditional face-to-face instruction with online learning activities, allowing students to learn at their own pace and providing more opportunities to digest learning materials. Because they have more control over their learning process, students are often more motivated and can concentrate better on challenging material. The flexibility of Blended Learning also allows students to repeat the material as many times as they need, which contributes to deeper understanding and long-term retention (Izza & Astutik, 2023).

Additionally, Blended Learning facilitates differentiation and personalization of learning. Teachers can provide a variety of resources and activities that can be tailored to individual student needs, including videos, interactive quizzes, and research-based projects. With real-time data from online learning platforms, teachers can quickly identify students who are struggling with specific material and provide specific support. This means that

interventions can be made more quickly, helping students stay on track and prevent them from falling behind. This increased personalization has been seen not only to improve academic outcomes but also to build students' confidence in their learning (Ananda, 2023).

In a social and collaborative context, Blended Learning encourages greater collaboration among students through online discussions, group work, and class projects. Students learn to communicate effectively across multiple media, a skill that is highly relevant in the modern workplace. The use of technology in Blended Learning also helps students develop essential digital skills. The result is a complete learning experience for students not only in terms of academic knowledge but also in life and professional competencies that will benefit them sustainably, in line with 21st-century competencies that are increasingly sought after in the workplace (Nugroho & Dewi, 2022).

Parental involvement in the student's learning process is another important aspect that benefits from the implementation of Blended Learning. Online learning platforms allow parents to track their child's learning progress in real time, facilitate better communication with teachers and support learning at home. This opens up opportunities for parents to be more actively involved in their children's education, deepen their understanding of the material being studied, and provide additional support as needed (Fauziyah et al., 2024). Thus, Blended Learning offers a comprehensive support system, integrating resources from school and home to create a rich and rewarding learning environment.

The continuous growth and development of information technology is changing the educational landscape, and Blended Learning has emerged as a method that is not only relevant but also vital in providing students with the skills needed for future success. By utilizing technology, education can become more inclusive, adapting to the various learning styles and specific needs of each student. In an increasingly digital environment, mastery of information technology is an absolute requirement, and Blended Learning provides an ideal platform to prepare students with these skills (Zhou et al., 2023).

Overall, Blended Learning has significant potential to improve student learning outcomes through increased participation, personalized learning, and the development of 21st-century skills. Through the intelligent integration of face-to-face and online approaches, students are given the opportunity to explore, collaborate, and learn in more dynamic and engaging ways (Han et

al., 2023). With this more flexible and adaptive learning approach, students are equipped not only with academic knowledge but also with life competencies that are essential for future success.

Factors Contributing to the Success or Failure of Blended Learning Implementation

Successful implementation of Blended Learning often depends on several key factors that influence its effectiveness. The first factor is adequate technological infrastructure. Schools and educational institutions need to have reliable and fast access to the internet, sufficient devices for all students and teachers, and a stable and easily accessible online learning platform. Lack of investment in this infrastructure can prevent students and teachers from taking full advantage of the benefits offered by Blended Learning, such as limited access to learning materials or difficulty in participating in online learning activities (Febriani & Kuswardani, 2022).

Furthermore, the success of Blended Learning implementation is highly dependent on the support and professional training of teachers. To integrate traditional learning methods with online methods, teachers must be trained not only in the use of technology, but also in developing learning strategies that combine the two effectively. Lack of this training can result in ineffective use of technology and failure to meet individual student learning needs (Ningsih & Novita, 2022).

The willingness and openness of students and teachers to change are also important factors that influence the success of Blended Learning. Acceptance of learning that utilizes technology requires a change in mindset and often requires adaptation. If the school community, both students and teachers, are not open to this new learning method or feel threatened by this change, then the implementation may not go smoothly or may not be fully adapted. A positive culture that encourages innovation and continuous learning is essential for long-term success (Shi & Lan, 2024).

Access to appropriate resources is another factor that can influence the success of Blended Learning. These resources include high-quality learning materials in both online and physical formats, as well as assessment tools that can accurately measure student learning progress. If these resources are inadequate or uninteresting, this can negatively impact the student learning experience, reducing motivation and learning outcomes (Kara & Kaban, 2023). Therefore, developing relevant and interactive resources is essential to ensure that students remain engaged and make appropriate progress.

In addition, an important factor that contributes to the successful implementation of Blended Learning is effective learning design. Learning must be designed in such a way as to utilize the strengths of both face-to-face and online learning. This design should include activities that are interactive, collaborative, and allow students to think critically and explore the material at their own pace. Poor learning design can leave students feeling confused and less engaged, thus hindering the learning process (Kurniawan et al., 2022). In addition, adjusting the curriculum to harmoniously combine online and offline components is key to creating a cohesive and meaningful learning experience for students.

Open communication between students, teachers, and stakeholders also supports the success of Blended Learning. There must be clear and effective communication channels that allow for feedback from students and parents, as well as collaboration between teacher colleagues to share best practices and solutions to emerging challenges (Kurniawati & Hadi, 2024). Furthermore, institutions must proactively inform and involve parents in the Blended Learning process so that they can support their children's learning at home. This lack of communication can lead to misunderstandings and undermine the necessary support from the school community.

Continuous evaluation and adjustment of learning strategies are critical factors for long-term success. This involves regular monitoring and evaluation of the effectiveness of teaching methods, learning materials, and technologies used. Collecting and analyzing data on student learning outcomes can help educational institutions identify areas for improvement and adjust their approaches to meet student needs. Without evaluation and a willingness to make improvements, blended learning programs may not reach their full potential and may become outdated or less relevant to students' evolving needs (Farikhah & Ammar, 2023).

In summary, the success of Blended Learning is not only determined by one factor, but by a combination of infrastructure factors, teacher training, community acceptance, availability of resources, mature learning design, good communication and continuous evaluation activities. Collaboration and commitment from all parties involved are essential in creating an effective and engaging learning experience (Razalan, 2022).

CONCLUSION

The Blended Learning method has proven to be effective in improving the learning outcomes of high school students. Through a combination of

face-to-face and online teaching, this method provides flexibility and individualized learning opportunities for students. Aspects such as content adaptation, interactivity, and the ability to learn at the pace of each student contribute to increased motivation and engagement in the learning process. The quality of technological infrastructure, teacher training and ability in implementing this method, and the support of the school community play a crucial role in the success of Blended Learning implementation. In line with that, well-designed learning designs enhance collaboration and critical thinking, which also contribute to better learning outcomes. Continuous evaluation and adjustment of learning strategies ensure that this method remains effective and relevant to evolving learning needs. Overall, Blended Learning is an educational approach that is able to meet the demands of modern education and improve the learning outcomes of high school students when applied with the right strategy.

REFERENCES

- Abd, T. M. K., Atussolihah, B., Kasillia, F. D. P., & Swaestya, D. (2022). The Effectiveness of Blended Learning During the Covid-19 Pandemic at the High School Level. *AL-ISHLAH: Jurnal Pendidikan*, 14(2), 2605–2614. <https://doi.org/10.35445/alishlah.v14i2.1201>
- Ananda, M. (2023). Implementation of the 2013 Curriculum in Mathematics Learning at the High School Level. *EDUCTUM: Journal Research*, 2(3), 1–5. <https://doi.org/10.56495/ejr.v2i3.430>
- Anida, A. S., Rohadi, T., & Rifai, A. (2024). The Implementation of Advocacy Method on Learning English Speaking at Senior High School. *English Education: Jurnal Tadris Bahasa Inggris*, 17(1), 120–120. <https://doi.org/10.24042/ee-jtbi.v17i1.18524>
- ARCETA, MA. A. C. C. (2023). WORK IMMERSION IN BLENDED LEARNING MODALITY ON THE SATISFACTION AND PERFORMANCE OF SENIOR HIGH SCHOOL GRADUATES OF STA. CATALINA INTEGRATED NATIONAL HIGH SCHOOL. *International Journal of Research Publications*, 124(1). <https://doi.org/10.47119/ijrp1001241520234924>
- Bozhko, N., Komissarova, S., & Kasyanov, S. (2023). The Experience of Training the Students of the Pedagogical University to the Implementation of the Blended Learning at School. *2023 3rd International Conference on Technology Enhanced Learning in Higher Education (TELE)*, 10(Query date: 2024-09-22 19:46:30), 308–311. <https://doi.org/10.1109/tele58910.2023.10184373>
- Djuwita, D., Nasrullah, R., & Faridawati, F. (2022). Students' Perception of The Implementation of Blended Learning at Junior High School. *Jurnal*

- Pendidikan Dan Pengajaran (JPP), 3(2), 57–67.
<https://doi.org/10.51454/jpp.v3i2.469>
- Earley, M. A. (2014). A synthesis of the literature on research methods education. *Teaching in Higher Education*, 19(3), 242–253.
- Farikhah, L., & Ammar, F. M. (2023). Evaluation of the Application of Blended Learning in Arabic Learning at Sidoarjo Junior High School. *Indonesian Journal of Islamic Studies*, 11(Query date: 2024-09-22 19:46:30).
<https://doi.org/10.21070/ijis.v11i0.1641>
- Fauziyah, L. U., Hartati, E. R., Hidayat, N., Noorhidayati, S., & Junaidi, M. (2024). Implementation of Blended Learning in PAI Subjects to Increase Student Engagements in High School. *EDU-RELIGIA: Jurnal Keagamaan Dan Pembelajarannya*, 7(1), 18–24. <https://doi.org/10.52166/edu-religia.v7i1.6750>
- Febriani, A., & Kuswardani, R. (2022). High School EFL Students' Attitudes towards Learning English Using Blended Learning during the Pandemic. *Al-Lisan*, 7(2), 225–237. <https://doi.org/10.30603/al.v7i2.2738>
- Guerrero, L. C., Rodriguez, J. C. R., & Pacheco, M. A. C. (2023). Virtual Learning During the COVID-19 Pandemic: The Opening for the Implementation of a Blended Learning Modality in the Chemistry Class at High School Level. *International Educational Research*, 6(1).
<https://doi.org/10.30560/ier.v6n1p1>
- Han, X., Cui, Y., Wang, W., Wang, S., & Feng, X. (2023). Implementation of Blended Learning at the Course Level. *Handbook of Educational Reform Through Blended Learning*, Query date: 2024-09-22 19:46:30, 45–123.
https://doi.org/10.1007/978-981-99-6269-3_2
- Hasan, A. M. (2022). Penerapan Blended Learning Berbasis Pendidikan Karakter Di Sekolah Dasar. *Decode: Jurnal Pendidikan Teknologi Informasi*, 2(2), 50–58. <https://doi.org/10.51454/decode.v2i2.41>
- Izza, A., & Astutik, A. P. (2023). Implementation of the independent curriculum in PAI learning at the junior high school level. Query date: 2024-09-22 19:46:30. <https://doi.org/10.21070/ups.2013>
- Kara, G., & Kaban, A. L. (2023). Experiences of elementary school teachers towards blended learning implementation. *International Journal of Learning Technology*, 18(2), 237–256.
<https://doi.org/10.1504/ijlt.2023.132762>
- Khadam, B. M., Hakiman, H., & Choiriyah, S. (2024). Implementation of the Role Playing Learning Method in Improving Islamic Religious Education Learning Outcomes on Marriage Material for Vocational High School Students. *International Journal of Social Science and Human Research*, 7(3). <https://doi.org/10.47191/ijsshr/v7-i03-62>
- Kurniawan, S. J., Wangid, M. N., & Supriyanto, A. (2022). STUDENTS' SATISFACTION IN COLLEGE: IMPLEMENTATION OF THE BLENDED

- LEARNING METHOD. *European Journal of Education Studies*, 9(5).
<https://doi.org/10.46827/ejes.v9i5.4300>
- Kurniawati, I., & Hadi, S. (2024). Evaluation of the Implementation of the Meaningful Learning Learning Model Based on Educational TV for High School Level. *Jurnal Teknodik*, Query date: 2024-09-22 19:46:30.
<https://doi.org/10.32550/teknodik.vi.1083>
- Limbong, M., & Lumbantoruan, J. H. (2022). The blended learning model with online skills on the learning independence of high school students. *JPPI (Jurnal Penelitian Pendidikan Indonesia)*, 8(4), 1203–1203.
<https://doi.org/10.29210/020222302>
- Liwanag, M. F., & Galicia, L. S. (2023). Technological Self-efficacy, Learning Motivation, and Selfdirected Learning of Selected Senior High School Students in a Blended Learning Environment. *Technium Social Sciences Journal*, 44(Query date: 2024-09-22 19:46:30), 534–559.
<https://doi.org/10.47577/tssj.v44i1.8980>
- Magbanua, C. C., & Bearneza, F. J. D. (2023). Learning Style and Performance in Mathematics of Senior High School Students Using Online Blended Learning Modality. *Technium Social Sciences Journal*, 44(Query date: 2024-09-22 19:46:30), 196–205. <https://doi.org/10.47577/tssj.v44i1.8901>
- Mulyadi, E., Riyanto, Y., & Kristanto, A. (2024). The Influence Of Collaborative Blended Learning Through Written Small Group Discussion Model On High School Students' English Writing Skills. *The Influence Of Collaborative Blended Learning Through Written Small Group Discussion Model On High School Students' English Writing Skills*, Query date: 2024-09-22 19:46:30. <https://doi.org/10.53555/kuey.v30i5.3051>
- MUTYA, R. C., & MASUHAY, A. L. (2023). THE EXTENT OF IMPLEMENTATION OF BLENDED LEARNING IN SENIOR HIGH SCHOOL SCIENCE EDUCATION VIS-A-VIS STUDENTS' ACADEMIC ACHIEVEMENT. *Turkish Online Journal of Distance Education*, 24(2), 47–63.
<https://doi.org/10.17718/tojde.1107412>
- Ningsih, D. A., & Novita, D. (2022). Guided inquiry learning-based blended learning on chemical equilibrium material to improve senior high school student learning outcomes. *Jurnal Pijar Mipa*, 17(1), 28–33.
<https://doi.org/10.29303/jpm.v17i1.3183>
- Ninsiana, W., Aderlaepe, A., & Huda, M. (2024). Improving Senior High School Students' English-Speaking Skill Through Blended Learning Method. *Ta'dib*, 27(1), 163–163. <https://doi.org/10.31958/jt.v27i1.10718>
- Nugroho, A. E., & Dewi, S. E. P. (2022). Implementation Of Project Based Learning (PjBL) Method On Music Learning In Junior High School Regina Pacis Surakarta. *Jurnal Seni Musik*, 11(1), 102–111.
<https://doi.org/10.15294/jsm.v11i1.56645>
- Ponta, T., Gani, H. A., & Mappalotteng, A. M. (2022). The Effectiveness of the PONTA Learning Model Based on Blended Learning in Vocational High

- School. *Asian Journal of Applied Sciences*, 10(3).
<https://doi.org/10.24203/ajas.v10i3.6994>
- Puspita, K. A., & Tirtoni, F. (2023). *Effect of Blended Learning Learning Model on Learning Outcomes of Elementary School Students*. Query date: 2024-09-22 19:46:30. <https://doi.org/10.21070/ups.1872>
- Razalan, A. F. (2022). English teachers blended learning teaching competencies in Angono national high school: Basis for school learning action cell. *Open Access Research Journal of Multidisciplinary Studies*, 4(2), 68–77. <https://doi.org/10.53022/oarjms.2022.4.2.0105>
- Samson, J. C. M., Abrenica, K. F. C., Delfin, R. J. M., & Arcinas, M. M. (2023). Unraveling the Effectiveness of Blended Learning: Key Factors for Effective Implementation from the Perspective of Senior High School Students. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(7), 2320–2329. <https://doi.org/10.11594/ijmaber.04.07.14>
- Shi, H., & Lan, P. (2024). Exploring the factors influencing high school students' deep learning of English in blended learning environments. *Frontiers in Education*, 9(Query date: 2024-09-22 19:46:30). <https://doi.org/10.3389/feduc.2024.1339623>
- Snyder, H. (2019–). Literature review as a research methodology: An overview and guidelines. *Journal of business research*, 104, 333–339.
- Stanley, T. (2022). Types of Resources for Blended Learning Approach to Study High School Chemistry. *International Academic Symposium of Social Science 2022*, 4(Query date: 2024-09-22 19:46:30), 94–94. <https://doi.org/10.3390/proceedings2022082094>
- Zhou, Q., Huang, Y., Luo, Y., Bai, X., Cui, Y., Wang, Y., & Chen, N. (2023). Implementation of Blended Learning at the Institutional Level. *Handbook of Educational Reform Through Blended Learning*, Query date: 2024-09-22 19:46:30, 159–198. https://doi.org/10.1007/978-981-99-6269-3_4