# ACTIVE LEARNING STRATEGIES: EQUIPPING PRIMARY SCHOOL TEACHERS FOR 21ST CENTURY EDUCATION

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#### Abstract

21st century education demands a paradigm shift in the learning process, especially at the primary school level. Active learning strategies are emerging as an effective approach to prepare students for future challenges. This research aims to examine the importance of active learning strategies and how to equip primary school teachers with the necessary skills to implement them. Through literature review and analysis of best practices, this research identifies various effective active learning methods, such as project-based learning, collaborative discussion and technology integration. The results show that active learning not only increases student engagement, but also develops 21st century skills such as critical thinking, creativity, collaboration and communication. However, its implementation faces challenges such as limited time and resources, and the need for continuous teacher training. **Keywords:** Active Learning Strategies, Teachers, Primary School, 21st Century Education.

### **INTRODUCTION**

Education in the 21st century faces increasingly complex and dynamic challenges. Rapid technological development, globalisation and socio-economic changes have significantly altered the educational landscape. In this context, primary school education as the initial foundation of learning has a crucial role in preparing future generations who are able to compete and contribute in a globalised society. (Sitopu et al., 2024); (Guna et al., 2024); (Fawait et al., 2024)..

21st century education demands a paradigm shift from traditional teacher-centred learning models to student-centred learning. Active learning is one of the key approaches in responding to this demand. Active learning strategies allow students to be directly involved in the learning process, developing critical thinking, creativity, collaboration and communication skills which are essential skills in the 21st century. (Cleovoulou, 2021).

Active learning strategies have a very important role in primary school education in the modern era. This approach not only increases student engagement in the learning process, but also develops the critical skills needed for success in the 21st century. Through active learning, students are encouraged to think critically, solve problems, communicate effectively and collaborate with peers. This helps prepare them to face real-world

challenges and become lifelong learners. (Uyar, 2023). In addition, active learning strategies also help to create a more interesting and enjoyable learning environment, increase student motivation, and facilitate a deeper understanding of the subject matter.

At the primary school level, the implementation of active learning strategies becomes even more crucial as this period is the phase of forming the basics of students' knowledge and skills. By actively involving students in the learning process, teachers can help them develop curiosity, creativity and independence in learning from an early age. (Santiani et al., 2024).. This strategy also allows teachers to accommodate students' various learning styles and multiple intelligences, so that every child has an equal opportunity to develop according to their potential. Furthermore, active learning in primary schools can help instil important values such as co-operation, empathy and a sense of responsibility, which are important foundations for students' future social and emotional development. (Penprase, 2020).

However, the implementation of active learning at the primary school level still faces various obstacles. Many teachers are still fixated on conventional teaching methods and have not fully understood or mastered active learning strategies. This can be caused by several factors, including: Lack of teachers' understanding of active learning concepts and principles, Limited training and professional development that focus on active learning strategies, Limited resources and infrastructure that support active learning, and pressure to complete the curriculum and prepare students for standardised tests. (Hatta et al., 2020).

On the other hand, learners in this digital era have different characteristics and learning needs from previous generations. They grow up in an environment rich in information and technology, which affects the way they think, interact and learn. Therefore, primary school teachers need to be equipped with relevant knowledge, skills and strategies to create a learning environment that is active, interactive and in line with the needs of 21st century learners. (Rulyansah et al., 2022)..

This research examines effective active learning strategies in the primary school context and identifies ways to equip teachers with the necessary competencies. By understanding the challenges teachers face and developing appropriate solutions, it is hoped to improve the quality of learning in primary schools and better prepare students to face the challenges of the 21st century.

#### **Research Methods**

The study in this research uses the literature method. The literature research method is a research approach that involves collecting, analysing, and synthesising information from various written sources relevant to the research topic. This process involves a systematic search of books, scientific journals, articles, research reports, and other reliable sources, both in print and digital form. The researcher then reviews, evaluates, and integrates the information obtained to identify patterns, trends, gaps in knowledge, and develop a deeper understanding of the subject under study. (JUNAIDI, 2021); (Abdussamad, 2022). This method is essential in building theoretical foundations,

identifying appropriate methodologies, and placing research in the broader context of a particular field of study. In addition, literature research also assists researchers in formulating relevant research questions, developing hypotheses, and providing justification for further research. (Wekke, 2020).

### **Results and Discussion**

# **Teachers' Understanding of Active Learning**

Active learning is an educational approach that places students at the centre of the learning process, encouraging them to engage actively and meaningfully in learning activities. This method contrasts with traditional passive learning where students only passively receive information from the teacher. In active learning, students are encouraged to think critically, analyse, solve problems, discuss, collaborate, and reflect on their learning experiences. (Wicahyani et al., 2021).. This approach involves various strategies such as group discussions, collaborative projects, simulations, role plays, experiments, and student presentations. The aim is to promote deep understanding of the material, develop higher-order thinking skills, improve knowledge retention, and prepare students to apply their learning in real-world situations. Active learning also aims to increase student motivation and engagement, create a more dynamic and interactive learning environment, and develop important social and communication skills. (Zhang, 2024).

Active learning has several key characteristics that distinguish it from traditional learning methods. Firstly, it is student-centred, where learners act as active participants in the learning process, not just passive recipients of information. Secondly, active learning emphasises interaction and collaboration, both between students and students and students and students and teachers. Thirdly, this method involves various activities that encourage critical thinking, analysis, and problem solving. (Reed et al., 2021). Fourth, active learning often integrates real-world experiences or simulations to enhance the relevance and practical application of the material learnt. Fifth, it encourages reflection and self-evaluation as an integral part of the learning process. Sixth, the method is flexible and adaptable to a variety of learning styles and multiple intelligences. Seventh, active learning often utilises technology and multimedia to enhance engagement and access to learning resources. Finally, assessment in active learning tends to be formative and ongoing, rather than relying solely on final tests. These characteristics together create a learning environment that is dynamic, engaging and effective in developing students' skills and knowledge. (Misra, 2023b).

Active learning offers a range of significant benefits to students and the educational process as a whole. Firstly, it improves retention and understanding of the material, as students are directly involved in the learning process, rather than just passively listening. Secondly, it develops critical thinking and problem-solving skills, which are crucial for success in the real world. Thirdly, active learning increases student motivation and engagement, making the learning process more interesting and relevant. (Aprinastuti, 2020). Fourth, it helps develop communication and collaboration skills through interaction

with peers and teachers. Fifth, this method encourages creativity and innovation, as students are encouraged to seek new solutions and approaches. Sixth, active learning helps students develop independence in learning and lifelong learning skills. Seventh, it increases students' confidence in expressing their ideas and opinions. Lastly, active learning can accommodate a variety of learning styles, ensuring that all students have the opportunity to succeed. (Misra, 2023a).

As such, active learning is an invaluable approach in modern education. By engaging students directly in the learning process, this method not only improves comprehension and retention of material, but also develops a range of essential skills needed for success in the 21st century. From enhancing critical thinking ability to developing social and communication skills, the benefits of active learning cover the cognitive, affective and psychomotor aspects of education. Therefore, integrating active learning strategies into the curriculum and teaching practices can greatly improve the quality and effectiveness of education, preparing students not only for exams, but also for real-life challenges and future careers.

# **Active Learning Strategies in Primary Schools**

Integrating games into the learning process is an effective strategy to increase student engagement at the primary school level. Teachers can use educational games that are specifically designed to teach specific subject concepts. For example, using card games to learn vocabulary or basic maths operations. Group games can also be used to develop social skills and co-operation. This strategy not only makes learning more fun, but also helps students remember information better as they are actively and emotionally involved in the learning process. (Misra, 2023c).

This approach involves students in practical projects that apply their knowledge in real-life situations. For example, students might build a model of the solar system for a science lesson, or write and perform a short drama for a language lesson. These projects can be done individually or in groups, encouraging students to develop research, creativity and problem-solving skills. Project-based learning also helps students see the relevance of the subject matter in everyday life, enhancing their motivation and understanding. (Syakhrani & Aslan, 2024); (Sartika & Fransiska, 2024); (Judijanto et al., 2024); (Iksal et al., 2024).

While still at the elementary level, students can begin to be introduced to simple concepts of discussion and debate. Teachers can start with topics that are relevant to students' lives, such as "Is it better to have many friends or a few close friends?" This strategy helps develop critical thinking skills, listening ability, and the courage to express opinions. Teachers can use techniques such as "think-pair-share", where students think of an answer on their own, then discuss it with a partner, before finally sharing with the whole class (Istiq'faroh et al., 2024)..

Taking students out of the classroom for hands-on learning experiences can be very effective at the Primary level. This could be a visit to the zoo for science lessons, to a

museum for history lessons, or even just observing the neighbourhood around the school. This experiential learning helps students connect theory with practice, improving understanding and retention of information. Outdoor activities can also involve simple experiments or observations of nature, which help develop students' basic scientific skills and curiosity. This strategy not only makes learning more engaging, but also helps students develop an appreciation of the environment and the world around them. (SAEKHOW & CHEEWAVIRIYANON, 2021).

This strategy involves students in small groups to complete tasks or solve problems together. Teachers can organise groups with diverse abilities to encourage peer learning. For example, in a maths lesson, students can work together to solve story problems or in a social studies lesson, they can create a project on regional culture. Collaborative learning helps develop social, communication, and leadership skills, and teaches students about responsibility and teamwork. (Jannah et al., 2020).

Utilising technology in learning can be very engaging for primary school students. The use of educational apps, interactive videos or even computer-based educational games can increase student engagement. For example, using gamification apps to learn maths or using virtual tours to explore historical places in social studies lessons. These strategies not only make learning more interesting, but also prepare students for the digital era, developing their technological literacy early on. (Erawati et al., 2021).

Thus, active learning strategies in primary schools aim to create a dynamic, interactive and student-centred learning environment. Through various approaches such as game-based learning, projects, discussions, hands-on experiences, collaboration, and the use of technology, students not only learn the subject matter but also develop important skills such as critical thinking, creativity, communication, and cooperation. These strategies help accommodate different learning styles, increase motivation, and make the learning process more meaningful and enjoyable. It is important for teachers to vary these strategies according to the needs and characteristics of their students, as well as the learning objectives to be achieved. With an active learning approach, primary school students are not only prepared for the next level of education, but also to become active and enthusiastic lifelong learners.

## **Teacher Constraints in Implementing Active Learning**

One of the main obstacles teachers face in implementing active learning is limited time and resources. Designing and preparing active learning activities often requires more time than traditional teaching methods. Teachers have to spend extra time designing projects, preparing discussion materials, or developing educational games. (Alghamdi & Al-Ghamdi, 2021).. In addition, some active learning strategies may require additional resources such as technology equipment, project materials, or more flexible classrooms, which are not always available in every school. These limitations can make teachers feel overwhelmed and reluctant to fully adopt active learning approaches. (JULAIHI & HAMDAN, 2020).

Active learning often involves more movement, interaction and hands-on activities in the classroom, which can create challenges in classroom management. Teachers may have difficulty in managing a more dynamic classroom, especially if they are used to a more structured and quiet classroom atmosphere. Ensuring all students remain on-task, managing noise levels, and facilitating effective group discussions can be challenging tasks. In addition, some students may take time to adapt to a more active learning style, which can lead to disruption or initial resistance (Amimo, 2021).

Each class consists of students with varying levels of ability and different learning styles. Implementing effective active learning for all students can be a huge challenge for teachers. Some students may thrive in an active learning environment, while others may feel overwhelmed or struggle to participate. Teachers must be able to adapt their strategies to accommodate these diverse needs, which requires strong differentiation skills. Moreover, ensuring that all students benefit equally from active learning activities, regardless of their ability or background, can be a complex and time-consuming task (Lubay et al., 2021).

Although active learning has been shown to be effective in improving student understanding and retention, teachers often feel pressured to meet curriculum standards and prepare students for standardised assessments. Active learning may take longer to cover certain material compared to direct teaching methods. As a result, teachers may feel worried about not being able to cover all the required material or not adequately preparing students for exams. This pressure may cause teachers to revert to more traditional, contentoriented teaching methods, even though they recognise the benefits of active learning. Balancing the demands of the curriculum with the principles of active learning is a significant challenge for many educators. (Habudin et al., 2023)..

The implementation of active learning can face resistance from various parties, including students, parents, or even colleagues and school administrators. Students who are used to passive learning methods may feel uncomfortable or reluctant to participate in more interactive activities. Parents may question the effectiveness of this new method, especially if it is different from the way they used to learn. More senior colleagues or school administrators may be sceptical of change and prefer established traditional methods. Dealing with this resistance can leave teachers feeling isolated and less supported in their efforts to implement active learning. (FURKAN & Yanti, 2023).

Many teachers may not have received adequate training on how to effectively implement active learning strategies. While they may be familiar with the concepts, they may lack the practical skills and confidence to implement them in the classroom. In addition, the lack of ongoing support can be a barrier. Teachers need opportunities to collaborate, share experiences and receive constructive feedback as they implement new approaches. Without a strong support system, teachers may feel overwhelmed and end up reverting to more familiar teaching methods. (Rockinson-Szapkiw & Caldwell, 2021); (Irwan et al., 2024); (Juliani & Aslan, 2024).

Thus, the implementation of active learning, while highly beneficial for students, presents a series of significant challenges for teachers. Constraints such as limited time and resources, classroom management difficulties, the need to accommodate student differences, curriculum pressures, resistance from various parties, and lack of training and support all contribute to the complexity of implementing this method.

However, it is important to remember that these constraints are not insurmountable obstacles. With the right support from educational institutions, ongoing training, collaboration between teachers, and a phased approach to implementation, many of these challenges can be overcome. The key to success lies in a shared commitment to creating a more dynamic and engaging learning environment for students, and a willingness to continuously learn and adapt.

Ultimately, the benefits of active learning in increasing student engagement, deep understanding and critical thinking skills far outweigh the challenges. With patience, creativity and the right support, teachers can overcome these obstacles and succeed in creating more meaningful and effective learning experiences for their students.

#### Conclusion

Active learning strategies are a crucial approach in preparing primary school students for the challenges of the 21st century. These methods not only increase student engagement in the learning process, but also develop critical thinking, creativity, collaboration and communication skills that are much needed in the modern era. Through various techniques such as project-based learning, group discussions, educational games and technology utilisation, teachers can create a dynamic learning environment that is relevant to today's needs.

However, implementing active learning also presents challenges for teachers, ranging from limited time and resources to the need for ongoing training and support. Nonetheless, with strong commitment, creativity and adequate institutional support, teachers can overcome these obstacles. Ultimately, the benefits of active learning in preparing students for the future far outweigh the challenges. By equipping primary school teachers with active learning strategies, we are investing in a more effective and relevant education, ensuring that future generations are prepared for the complexities of the 21st century world.

### References

Abdussamad, Z. (2022). Qualitative Research Methods Book. Query date: 2024-05-25 20:59:55. https://doi.org/10.31219/osf.io/juwxn

Alghamdi, A. K. H., & Al-Ghamdi, N. A. (2021). Elementary Teachers' Thoughts about Distance Education and Learning 21st-Century Skills during COVID Pandemic. International Journal of Learning, Teaching and Educational Research, 20(3), 33-50. https://doi.org/10.26803/ijlter.20.3.3

- Amimo, C. A. (2021). From the Classroom into Virtual Learning Environments: Essential Knowledge, Competences, Skills and Pedagogical Strategies for the 21st Century Teacher Education in Kenya. Teacher Education in the 21st Century Emerging Skills for a Changing World, Query date: 2024-11-29 19:59:33. https://doi.org/10.5772/intechopen.96950
- Aprinastuti, C. (2020). Developing 21st Century Skills for Elementary School Students Grade

  1 by Implementing Indonesian Traditional Games in Mathematic Learning.

  Proceedings of the International Conference on Progressive Education (ICOPE 2019),

  Query date: 2024-11-29 19:59:33. https://doi.org/10.2991/assehr.k.200323.094
- Cleovoulou, Y. (2021). 21st Century Pedagogies and Citizenship Education: Enacting Elementary School Curriculum Using Critical Inquiry-Based Learning. Teacher Education in the 21st Century Emerging Skills for a Changing World, Query date: 2024-11-29 19:59:33. https://doi.org/10.5772/intechopen.96998
- Erawati, G. A. P. S. A., Widiana, I. W., & Japa, I. G. N. (2021). Elementary School Teachers' Problems in Online Learning during the Pandemic. *International Journal of Elementary Education*, 5(4), 562-562. https://doi.org/10.23887/ijee.v5i4.39233
- Fawait, A., Siyeh, W. F., & Aslan, A. (2024). ISLAMIC EDUCATION MANAGEMENT STRATEGIES IN IMPROVING THE QUALITY OF LEARNING IN MADRASAS. Indonesian Journal of Education (INJOE), 4(2), 657~665-657~665.
- FURKAN, I. M., & Yanti, F. (2023). Implementation of 21st Century Learning through the Development of ICT-Assisted Learning Media in Elementary School. *Universe*, 4(1), 118-126. https://doi.org/10.24036/universe.v4i1.675
- Guna, B. W. K., Yuwantiningrum, S. E., Firmansyah, S, M. D. A., & Aslan. (2024). Building Morality and Ethics Through Islamic Religious Education In Schools. *IJGIE* (International Journal of Graduate of Islamic Education), 5(1), 14-24. https://doi.org/10.37567/ijgie.v5i1.2685
- Habudin, Mastoah, I., & Farhurohman, O. (2023). Implementation of 21st Century Learning in Elementary School. DIDAKTIKA TAUHIDI: Journal of Elementary School Teacher Education, 10(1), 71-81. https://doi.org/10.30997/dt.v10i1.8272
- Hatta, P., Aristyagama, Y. H., Yuana, R. A., & Yulisetiani, S. (2020). Active Learning Strategies in Synchronous Online Learning for Elementary School Students. *IJIE* (Indonesian Journal of Informatics Education), 4(2), 86-86. https://doi.org/10.20961/ijie.v4i2.46019
- Iksal, I., Hayani, R. A., & Aslan, A. (2024). STRENGTHENING CHARACTER EDUCATION AS A RESPONSE TO THE CHALLENGES OF THE TIMES. Indonesian Journal of Education (INJOE), 4(3), 761~774-761~774.
- Irwan, I., Arnadi, A., & Aslan, A. (2024). DEVELOPING CRITICAL THINKING SKILLS OF PRIMARY SCHOOL STUDENTS THROUGH INDEPENDENT CURRICULUM LEARNING. Indonesian Journal of Education (INJOE), 4(3), 788~803-788~803.
- Istiq'faroh, N., Kiettikunwong, N., Setiawan, R., & Muhimmah, H. A. (2024). Educational Games as Learning Media in the 21st Century for Elementary School Students: A Systematic Literature Review. *ELEMENTARY: Islamic Teacher Journal*, 12(1), 1-1. https://doi.org/10.21043/elementary.v12i1.22636
- Jannah, M., Prasojo, L. D., & Jerusalem, M. A. (2020). Elementary School Teachers' Perceptions of Digital Technology Based Learning in the 21st Century: Promoting Digital Technology as the Proponent Learning Tools. *Al Ibtida: Journal of MI Teacher Education*, 7(1), 1-1. https://doi.org/10.24235/al.ibtida.snj.v7i1.6088

- Judijanto, L., Shodiqin, R., & Aslan. (2024). SOCIAL SOLIDARITY IN THE DIGITAL AGE: CHALLENGES AND OPPORTUNITIES. Proceedings of the Indonesian National Seminar, 2(3), 357-368.
- JULAIHI, N. H., & HAMDAN, A. (2020). Malaysian Secondary School Teachers' Readiness in Implementing 21st Century Learning (PAK21). DEStech Transactions on Social Science, Education and Human Science, Query date: 2024-11-29 19:59:33. https://doi.org/10.12783/dtssehs/icedde2019/33705
- Juliani, J., & Aslan, A. (2024). THE BASICS OF CURRICULUM DEVELOPMENT: CURRICULUM FROM THE ASPECTS OF IMTAQ AND IPTEK. International Journal Of Humanities, Social Sciences And Business (INJOSS), 3(2), 299-309.
- JUNAIDI, J. (2021). ANNOTATED QUALITATIVE RESEARCH METHODOLOGY JOHN W. CRESWELL. Query date: 2024-05-25 20:59:55. https://doi.org/10.31237/osf.io/6kt5q
- Lubay, L. H., Shavira, A., & Putri, W. (2021). How Teachers Implement Online Physical Education Learning during Covid-19 Pandemic. TEGAR: Journal of Teaching Physical Education in Elementary School, 5(1), 34-42. https://doi.org/10.17509/tegar.v5i1.38916
- Misra, P. K. (2023a). Designing Instructional Strategies for Blended Learning. *Teaching Competencies for 21st Century Teachers*, Query date: 2024-11-29 19:59:33, 187-199. https://doi.org/10.4324/9781003344452-17
- Misra, P. K. (2023b). Devising Assessments for Active Learning. Teaching Competencies for 21st Century Teachers, Query date: 2024-11-29 19:59:33, 67-82. https://doi.org/10.4324/9781003344452-7
- Misra, P. K. (2023c). Teaching and Learning in the 21st Century and Teachers. *Teaching Competencies for 21st Century Teachers*, Query date: 2024-11-29 19:59:33, 1-12. https://doi.org/10.4324/9781003344452-1
- Penprase, B. E. (2020). Active and Peer-Based Learning. STEM Education for the 21st Century, Query date: 2024-11-29 19:59:33, 17-34. https://doi.org/10.1007/978-3-030-41633-1\_2
- Reed, S. S., Mullen, C. A., & Boyles, E. T. (2021). Correction to: Problem-Based Learning in Elementary School. SpringerBriefs in Education, Query date: 2024-11-29 19:59:33. https://doi.org/10.1007/978-3-030-70598-5 6
- Rockinson-Szapkiw, A. J., & Caldwell, L. R. (2021). Improving STEM Career Aspirations in Underrepresented Populations. Research Anthology on Navigating School Counselling in the 21st Century, Query date: 2024-11-29 19:59:33, 230-251. https://doi.org/10.4018/978-1-7998-8963-2.cho13
- Rulyansah, A., Budiarti, R. P. N., Rihlah, J., Mardhotillah, R. R., & Wardhani, R. P. (2022). Application of 21st Century Learning Theory to the Improvement of Elementary School Teachers' Pedagogical and Professional Competence: A Guide for Educators. *Indonesia Berdaya*, 4(1), 61-68. https://doi.org/10.47679/ib.2023377
- SAEKHOW, J., & CHEEWAVİRİYANON, C. (2021). EFFECTS OF ONLINE MEDIA TRAINING INTEGRATED WITH ACTIVE LEARNING ON THE DEVELOPMENT OF 21ST CENTURY SKILLS FOR TEACHERS IN RANONG PROVINCE, THAILAND. IJAEDU- International E-Journal of Advances in Education, Query date: 2024-11-29 19:59:33, 117-121. https://doi.org/10.18768/ijaedu.971283
- Santiani, N. P. E., Parmiti, D. P., & Werang, B. R. (2024). 21st Century Skills Oriented Science Learning Worksheets for Elementary Schools. *International Journal of Elementary Education*, 8(1), 101-111. https://doi.org/10.23887/ijee.v8i1.62868
- Sartika, E., & Fransiska, F. W. (2024). UNDERSTANDING THE STUDENTS' ENGLISH LEARNING ACHIEVEMENT AND HOME ENVIRONMENT SUPPORTS DURING SCHOOL CLOSURE

- TO RESPOND TO THE PANDEMIC AT PRIVATE MADRASAH TSANAWIYAH AT-TAKWA SAMBAS. International Journal of Teaching and Learning, 2(4), 939-953.
- Sitopu, J. W., Khairani, M., Roza, M., Judijanto, L., & Aslan, A. (2024). THE IMPORTANCE OF INTEGRATING MATHEMATICAL LITERACY IN THE PRIMARY EDUCATION CURRICULUM: A LITERATURE REVIEW. International Journal of Teaching and Learning, 2(1), 121-134.
- Syakhrani, A. W., & Aslan, A. (2024). THE IMPACT OF INFORMAL FAMILY EDUCATION ON CHILDREN'S SOCIAL AND EMOTIONAL SKILLS. *Indonesian Journal of Education* (INJOE), 4(2), 619~631-619~631.
- Uyar, A. (2023). 21st Century Skills of Pre-service Teachers and Visions of Faculties of Education in Acquiring 21st Century Skills. *International Journal of Contemporary Educational Research*, 10(1), 262-278. https://doi.org/10.33200/ijcer.1274201
- Wekke, I. S. (2020). *Qualitative Research Design. Query date:* 2024-05-25 20:59:55. https://doi.org/10.31219/osf.io/4q8pz
- Wicahyani, S., Williyanto, S., Pardiman, P., & Saputra, D. R. (2021). Body Language and Gestures of Teachers in Virtual Meeting during Online Physical Education Learning in Elementary School. TEGAR: Journal of Teaching Physical Education in Elementary School, 5(1), 59-67. https://doi.org/10.17509/tegar.v5i1.39753
- Zhang, Y.-R. (2024). Career management strategies and commitment among Chinese elementary school teachers. *International Journal of Research Studies in Education*, 13(4). https://doi.org/10.5861/ijrse.2024.24645