

# DEVELOPMENT OF A RESPONSIVE GUIDANCE-BASED PARENTAL ASSISTANCE MANAGEMENT MODEL TO IMPROVE ELEMENTARY SCHOOL STUDENTS' LEARNING OUTCOMES IN PERCUT SEI TUAN DISTRICT, DELI SERDANG REGENCY, INDONESIA

<sup>1</sup>SRI NGAYOMI YUDHA WASTUTI, <sup>2</sup>AMAN SIMAREMARE,  
<sup>3</sup>SUDIRMAN

<sup>1</sup>DOCTORAL PROGRAM IN EDUCATIONAL MANAGEMENT UNIVERSITAS NEGERI MEDAN,  
EMAIL: sringayomi@umsu.ac.id

<sup>2</sup>DOCTORAL PROGRAM IN EDUCATIONAL MANAGEMENT UNIVERSITAS NEGERI MEDAN,  
EMAIL: tuansimare@unimed.ac.id

<sup>3</sup>DOCTORAL PROGRAM IN EDUCATIONAL MANAGEMENT UNIVERSITAS NEGERI MEDAN,  
EMAIL: sudirman64@unimed.ac.id

---

## ABSTRACT

This study aimed to develop a Responsive Guidance-Based Parental Assistance Management Model that is valid, practical, and effective in enhancing the learning outcomes of elementary school students in Percut Sei Tuan District, Deli Serdang Regency. The research was motivated by the low level of systematic parental involvement in students' learning, weak collaboration between schools and families, and the absence of a structured and adaptive management model responsive to students' psycho-pedagogical characteristics. The research employed a Research and Development (R&D) approach adapted from the Borg & Gall model, implemented through three stages of trials involving six elementary schools. The development process included needs analysis, model design, expert validation, limited trials, and broader application to ensure both theoretical soundness and practical usability. Findings demonstrated that the developed model achieved high content and construct validity based on expert evaluation, indicating strong theoretical alignment and internal consistency. The model also exhibited high practicality as assessed by teachers and parents, signifying ease of implementation and relevance to real classroom and home-learning contexts. Its effectiveness was confirmed through empirical testing: during the initial training phase (Trial I), participant comprehension increased markedly from 11.4% (pretest) to 88.6% (posttest). Moreover, sequential implementation across Trials I, II, and III revealed significant and consistent improvements in all key indicators. By Trial III, (1) high-category parental involvement reached 88.45%, (2) high-category teacher implementation of responsive guidance reached 82.13%, and (3) high-category student learning outcomes reached 76.53%, with no participants remaining in the "low" category. The novelty of this research lies in integrating the management approach (POAC: Planning, Organizing, Actuating, Controlling) with the principles of responsive guidance into a cohesive managerial framework that is both applicative and contextually adaptive to school-family dynamics. This synergy not only bridges the gap between pedagogical guidance and managerial practice but also provides a sustainable mechanism for strengthening home-school collaboration. In conclusion, the Responsive Guidance-Based Parental Assistance Management Model is empirically proven to be valid, practical, and effective in improving students' learning outcomes. Its systematic design offers a strategic innovation for empowering teachers and parents as collaborative partners in the continuous improvement of basic education quality.

**Keywords:** Management, Parental assistance, Responsive guidance, Learning outcomes, School-family collaboration.

---

## INTRODUCTION

Global data indicates that education is a fundamental pillar in the formation of competent and competitive human capital (Human Resources)(Abraham & Mallatt, 2022; Adeleye et al., 2022; Brodny & Tutak, 2024). The UNESCO Global Education Monitoring Report 2024/2025 affirms the urgent need to improve the quality and equity of access to education worldwide as a primary prerequisite for sustainable development(Çetin, 2024; Chacón et al., 2024; Shilets et al., 2025). At the national level, Indonesia ranked 47th in the IMD World Talent Ranking 2024, while its Human Development Index (HDI) score reached 0.7502, reflecting significant progress, albeit still accompanied by inter-regional disparities. According to the 2023 Education Statistics released by Statistics Indonesia (BPS), there has been an increase in educational attainment rates. Nevertheless, the 2018 Programme for International Student Assessment (PISA) results indicate that Indonesian students' competencies in reading literacy, mathematics, and

science remain below the international average. The Indonesian government is continuously implementing various efforts to expand educational access and enhance learning quality to strengthen the foundation of superior human capital as a driving force for national advancement.

Education serves as a strategic instrument in developing superior human capital, fostering individuals who not only master knowledge and skills but also possess strong integrity and character. According to Law Number 20 of 2003 concerning the National Education System, education is defined as a conscious and planned effort to fully develop student potential, encompassing cognitive, affective, and psychomotor domains(Reeves, 2006; Rossiter & Crock, 2006; Wulandari et al., 2024). Consequently, the responsibility for education does not rest solely with school institutions but also with the family and the community, which form an interconnected learning ecosystem. In the context of elementary education, parental involvement is crucial as children are in the concrete operational stage of cognitive development (Piaget), requiring intensive support to comprehend concepts and form study habits. Furthermore, the family plays a vital role in character education; as Lickona (2019) asserts, moral and ethical values are most effectively instilled through modeling and daily interactions at home. Therefore, the synergy between school and family is key to realizing a holistic and sustainable education oriented toward the formation of superior human capital with strong character.

Assisting children's learning at home is a tangible form of parental involvement that has a substantial influence on their academic achievement and character development. Santrock (2018) asserts that parental involvement in the learning process includes supervision, providing direction, motivation, and support in completing school tasks. This assistance is not limited to helping children answer questions but also encompasses guidance in understanding concepts, managing study time, and building effective learning strategies. This is crucial because elementary school-age children have not yet developed mature self-regulation abilities, thus requiring the parental role as a facilitator to help direct learning activities in a regular, measurable, and meaningful way.

The forms of assistance provided at home can vary, ranging from the provision of adequate learning facilities to the creation of a conducive learning environment and offering appreciation for the child's achievements. Desforges and Abouhaar (2017) posit that consistent and structured parental involvement positively impacts children's learning attitudes, self-confidence, and academic achievement. A supportive home environment—one that is quiet, free from distractions, and full of emotional support—encourages children to be more focused and comfortable in the learning process. Proper learning facilities, such as a desk, reading materials, and adequate writing tools, also serve as external factors that strengthen a child's motivation and independence in learning.

Beyond serving as academic support, learning assistance also functions as a means of effective communication between parents and children. Hoover-Dempsey et al. (2015) explain that open and positive communication within the learning context enhances parents' understanding of the challenges their children face, allowing for more targeted interventions. Children who feel valued and heard tend to exhibit higher intrinsic motivation and a positive attitude toward the learning process. In this context, learning assistance is not solely oriented toward cognitive achievement but also serves as a medium for strengthening the healthy emotional bond between parent and child, which is a critical foundation for personality development.

Parental understanding of a child's learning style is also a key element in effective assistance. According to (Jankowska & Karwowski, 2019)each child has different learning preferences—visual, auditory, or kinesthetic—which influence how they understand and process information. By recognizing their child's learning style, parents can adapt the methods, media, and strategies used in providing assistance. For instance, a child with a visual style will be better assisted by pictures, diagrams, or concept maps, whereas an auditory child is more responsive to verbal explanations and discussions. This adaptive approach enables the optimization of the child's individual learning potential.

Furthermore, learning assistance plays an important role in instilling the values of independence and responsibility. Parents who encourage children to complete tasks independently, while providing proportional guidance, help them develop problem-solving skills, time management, and self-confidence. (Grolnick, 2015) found that children who receive assistance with an autonomy-supportive approach demonstrate higher learning motivation and better academic results. Therefore, assistance at home is not solely aimed at helping children complete schoolwork but also at shaping them into lifelong learners capable of independent and continuous learning.

However, many current assistance practices are often uniform and fail to consider the individual characteristics of each child. Many parents use the same approach for all their children without regard for their respective learning styles, ability levels, or interests. This situation contradicts the principles of learner-centered education, as described by (Grolnick & Pomerantz, 2022)through the concept of the Zone of Proximal Development (ZPD), which emphasizes the importance of guidance tailored to the child's developmental level. Non-adaptive assistance risks impeding the development of a child's potential because it fails to address dynamic individual needs.

To address these limitations, the responsive guidance-based assistance management model offers a more personal, adaptive, and contextual approach. (Canzittu, 2024)demonstrated that parents who implement responsive guidance—which integrates the provision of learning facilities, emotional attention, and an understanding of the child's difficulties—can significantly improve academic achievement. This model is based on the principle that assistance must be predicated on an understanding of the child's condition before determining the appropriate assistance strategy. Thus, this approach fosters more meaningful involvement, as parents act as 'learning partners' who understand their child's unique needs.

The implementation of responsive guidance can be managed through the principles of management as proposed by Terry (2020) via the POAC (Planning, Organizing, Actuating, Controlling) functions. In the context of learning assistance, planning involves determining clear assistance goals and strategies; organizing involves the division of

roles among parents, teachers, and the child; actuating is carried out by adjusting to home learning conditions; and controlling serves to evaluate the effectiveness of the assistance. The integration of the POAC concept with responsive guidance yields an assistance system that is professional, sustainable, and oriented toward the child's holistic learning outcomes.

The need for this model becomes more pressing with the implementation of the Kurikulum Merdeka (Independent Curriculum), which requires students to be independent, creative, and critical thinkers. The Ministry of Education, Culture, Research, and Technology (Kemdikbudristek, 2022) asserts that achieving the Profil Pelajar Pancasila (Pancasila Student Profile) is inseparable from the family's role as a strategic partner to the school in developing the six main dimensions: faith and piety to God Almighty, global diversity, mutual cooperation, independence, critical reasoning, and creativity. Without directed and consistent assistance at home, these objectives are difficult to achieve optimally. Therefore, the responsive guidance-based assistance model serves as a strategic tool to strengthen the synergy between family and school in the 21st-century learning context.

Furthermore, this model also functions as a communication bridge between the school and the family. (Brajša-Žganec et al., 2019) emphasizes that effective collaboration requires role clarity, two-way communication, and a shared understanding of goals. Through this approach, teachers can provide recommendations for assistance strategies tailored to the child's needs, while parents can provide feedback regarding the child's development at home. This reciprocal interaction ensures continuity between learning at school and at home, thereby promoting simultaneous improvement in academic achievement and character formation. The empirical reality in Percut Sei Tuan District indicates that most learning assistance is still conducted sporadically and without planning. Parents tend to assist their children only when they are facing assignments or exams, lacking a systematic pattern of support. This situation signifies a gap between the school's expectations for family involvement and the actual practices in the field. Therefore, this research is essential for designing a responsive guidance-based learning assistance model that can bridge this gap.

## RESEARCH METHODS

The research method employed in this study is Research and Development (R&D), which aims to produce an applicable responsive guidance-based learning assistance management model for parents to assist their children's learning at home. This method was selected because it is not solely oriented toward theoretical findings but also yields a practical product whose validity, practicality, and effectiveness can be tested in the field. The model development process in this research comprises four main stages: (1) the conceptual model stage, formulated based on theoretical reviews, previous research findings, and a field needs analysis; (2) the theoretical model stage, which systematically formulates the model design through a synthesis of theories and empirical findings; (3) the hypothetical model stage, which is a refinement of the theoretical model and is tested through expert validation and limited field trials; and (4) the final model stage, which is obtained after revisions based on feedback from experts, educational practitioners, and the results of practical implementation. This research was conducted at six Elementary Schools in Percut Sei Tuan District, Deli Serdang Regency, namely UPT SPF SDN 107398 Sei Rotan, UPT SPF SDN 101780 Percut, UPT SPF SDN 106812 Bandar Klippa, UPT SPF SDN 104209 Saentis, UPT SPF SDN 106814 Tembung, and UPT SPF SDN 104207 Cinta Damai. The locations were selected using purposive sampling based on the consideration that these schools represent the varied characteristics of educational units in the Percut Sei Tuan District, particularly regarding the number of students, family socioeconomic backgrounds, and the level of parental participation in children's education. Furthermore, these schools were deemed to possess readiness and openness towards educational innovation and partnership with the researchers in an effort to improve learning quality and strengthen the family's role in elementary education.

## RESULTS

The responsive guidance-based parental assistance management model was developed to improve the learning outcomes of elementary school students by strengthening the synergy between the roles of teachers and parents in the educational process. The assessment of this model was conducted based on three main aspects—validity, effectiveness, and practicality—which formed the basis for determining the model's feasibility prior to widespread implementation. From the aspect of validity, test results involving experts in educational management, guidance and counseling, and elementary education practitioners indicated that the model possesses a systematic structure, relevant substance, and congruence between its theoretical foundations and practical field needs. The model's content and construct validity were assessed as high, demonstrating that it is conceptually academically sound and feasible for implementation, pending minor refinements based on expert feedback. Regarding effectiveness, the model's implementation was tested through three sequential trial stages (Trial I, Trial II, and Trial III).

The results showed a significant improvement in three primary indicators: parental involvement, teachers' implementation of responsive guidance, and student learning outcomes. In the first trial, parental involvement was predominantly in the 'sufficient' category (73.21%) and 'low' category (26.79%). Following adjustments to the implementation mechanism and the strengthening of teacher-parent communication, an increase was observed in the second trial, with the 'high' category rising to 24.32% and the 'low' category decreasing to 8.57%. This improvement became more significant in the third trial, where parental involvement in the 'high' category reached 88.45%, with no instances remaining in the 'low' category. Improvement was also observed in the indicator for teachers' implementation of responsive guidance. In the first trial, most teachers were in the 'sufficient' (66.07%) and 'low'

(33.93%) categories. After receiving training and assistance in applying the model, the second trial results showed an increase in the 'high' category to 28.50% and a decrease in the 'low' category to 19.75%. By the third trial, the majority of teachers (82.13%) were in the 'high' category, signifying a substantial improvement in their competency and proactivity in providing responsive guidance oriented toward student learning needs and two-way communication with parents.

The next indicator, student learning outcomes, also demonstrated positive development through each trial stage. In the first trial, most students were in the 'sufficient' category (76.79%), with the remainder in the 'low' category (23.21%). In the second trial, the proportion in the 'high' category increased to 16.83%, while the 'low' category decreased to 21.47%. The third trial showed a significant improvement, with students in the 'high' category reaching 76.53%, and no students remaining in the 'low' category. These findings indicate that the implementation of the responsive guidance model not only impacted student motivation and engagement in the learning process but also significantly enhanced their academic achievement. Furthermore, regarding practicality, both teachers and parents assessed the model as easy to implement, possessing clear step-by-step guidelines, and relevant to the learning needs in elementary schools. Teachers felt supported by the systematic implementation formats and user-friendly instruments for monitoring student progress, while parents felt motivated to participate because the assistance materials were composed in easily understandable language and were appropriate for the child's home life context. The trial process also served as a means for reflection and continuous improvement, where feedback from teachers, principals, and parents was used to refine the model's content, implementation mechanisms, and monitoring instruments.

Overall, the responsive guidance-based parental assistance management model was proven to be valid, effective, and practical for improving the learning outcomes of elementary school students. This model successfully strengthened the collaborative relationship between teachers and parents, fostered awareness of the importance of family involvement in children's education, and promoted the creation of a participatory learning process oriented toward individual student needs. Therefore, this model is recommended for wider application in elementary schools with similar characteristics, taking into account factors such as school culture, teacher readiness, and family environmental support. As a quantitative comparison of the development in parental involvement, quality of teacher guidance, and student learning outcomes at each trial stage, Table 1 is presented below, illustrating the gradual changes in outcome categories:

Table 1. Comparison Results of the Responsive Guidance-Based Parental Assistance Management Model Trials

Implementation	Category	Low	Fair	Adequate	High
Trial I	Parental Involvement	–	26.79%	73.21%	–
	Responsive Guidance by Teachers	–	33.93%	66.07%	–
	Students' Learning Outcomes	–	23.21%	76.79%	–
Trial II	Parental Involvement	–	8.57%	67.11%	24.32%
	Responsive Guidance by Teachers	–	19.75%	51.75%	28.50%
	Students' Learning Outcomes	–	21.47%	61.70%	16.83%
Trial III	Parental Involvement	–	–	11.55%	88.45%
	Responsive Guidance by Teachers	–	–	17.87%	82.13%
	Students' Learning Outcomes	–	–	23.47%	76.53%

The comparative results presented in the table above show a consistent pattern of improvement across all evaluated aspects. The implementation of the model has proven effective in simultaneously enhancing parental involvement, teachers' competence in providing responsive guidance, and students' academic achievement. Thus, the findings of this study reinforce the theoretical assumption that structured family involvement through a responsive guidance approach can serve as an effective managerial strategy for sustainably improving the quality of elementary education.

## DISCUSSION

The implementation of Limited Trial I of the Responsive Guidance-Based Parental Assistance Management Model, conducted at two Elementary Schools in Percut Sei Tuan District, yielded highly positive results and demonstrated the initial effectiveness of the developed model. Analysis of pretest and posttest results from respondents revealed a significant improvement in comprehension of the training materials provided. In the initial stage (pretest), only 12 participants (11.4%) demonstrated adequate comprehension and met the passing criteria, whereas 93 participants (88.6%) did not meet the mastery criteria. This situation indicates that prior to the training, the majority of participants lacked a comprehensive understanding of the responsive guidance concept, basic counseling principles, and effective assistance strategies within the elementary education context.

However, after the training, the posttest results showed a substantial change, with the number of participants meeting the criteria increasing to 93 (88.6%), and only 12 participants (11.4%) not yet achieving mastery. This 77.2% increase confirms that the training intervention provided through the responsive guidance-based assistance management model effectively enhanced the participants' knowledge, understanding, and skills in applying appropriate child assistance principles. This improvement is attributable to the systematic and comprehensive training design and structure, which included six main components: (1) an introduction to the model's gradual and integrated implementation flow; (2) reinforcement of the responsive guidance concept through theoretical discussion and case



studies; (3) application of basic counseling techniques applicable to the elementary school context; (4) application of parental assistance strategies using a communicative and empathetic approach; (5) simulation of effective communication between teachers and parents in handling student learning problems; and (6) collaborative reflection activities to strengthen understanding, enhance motivation, and broaden participant commitment to the model's field application. The participatory approach used in the training rendered the learning process more meaningful and contextual, as participants were not merely passive information recipients but were actively involved in discussions, simulations, and reflective activities based on real experiences.

Post-training reflections indicated that the majority of teachers and parents felt more confident and prepared to implement the model in their schools and family environments. Several participants even noted that this approach helped strengthen the emotional relationships between parents and children, as well as between teachers and parents, in supporting the students' learning process. Nevertheless, a small portion of participants stated they still required further assistance, particularly during the initial implementation phase, signaling the need for a training sustainability strategy through a mentoring or periodic supervision system. Field observations during simulations also showed that most participants were able to internalize their roles as assistants, displaying empathetic attitudes, supportive communication, and problem-solving abilities when facing the dynamics of children's learning. These empirical findings from the limited trial provide a strong foundation for proceeding to the model refinement stage and the implementation of Limited Trial II. The success of the initial implementation also justifies that this model has high potential for broader application in Trial III as a strategy for improving the quality of elementary education based on school-family collaboration.

From in-depth analysis, this research presents significant novelty in the development of a responsive guidance-based parental assistance management model. First, this model integrates guidance and counseling functions with the active role of parents in assisting children's learning, which has not previously been systematically implemented in the Indonesian elementary education context. Second, it strengthens the basic competencies of teachers as initial counselors, who act not only as educators but also possess the ability to detect and respond directly to student learning problems with an empathetic approach. Third, the model emphasizes structured, data-driven responsive parenting skills, focusing on two-way communication, empathy, and collaboration in building a conducive learning environment. Fourth, it promotes a measurable, collaborative management approach between the school and parents, complete with implementation flows, evaluation instruments, and joint reflection mechanisms.

Furthermore, In addition, the trial demonstrated that the structured stages of the model—covering planning, organizing, implementing, and evaluating parental assistance activities—helped create a more systematic partnership between schools and families. Teachers reported that after applying the model, parents became more proactive in attending school meetings, monitoring homework, and communicating with educators regarding children's progress. This finding corresponds with Epstein's (2018) theory of overlapping spheres of influence, which asserts that effective learning occurs when schools, families, and communities share responsibility and build mutual trust. From the perspective of teacher professional development, the model also proved effective in improving teachers' counseling-related competencies. Teachers participating in the training indicated a better understanding of the psychological indicators of learning difficulties and the ability to provide immediate, empathetic feedback to students. Similar outcomes were reported by Sheridan et al. (2019), who found that teacher training emphasizing partnership-based consultation significantly improved student motivation and engagement in the classroom.

## CONCLUSION

The Responsive Guidance-Based Parental Assistance Management Model developed for elementary schools in Percut Sei Tuan District, Deli Serdang Regency, Indonesia, has demonstrated its validity, effectiveness, and practicality as a structured approach to improving student learning outcomes through strengthened school-family collaboration. The model was systematically designed to integrate responsive guidance principles into parental assistance management, emphasizing active parental involvement, empathetic teacher-student interaction, and a participatory learning environment that addresses the psycho-pedagogical needs of students. From a validity perspective, assessments by experts in educational management, guidance and counseling, and elementary education confirmed that the model possesses a strong theoretical foundation, coherent structure, and contextual relevance. Its content, construct, and procedural components were aligned with educational theory and practical classroom needs, ensuring that the model is conceptually sound and ready for implementation with only minor refinements. Regarding effectiveness, the model was tested through three sequential trials. Each stage showed consistent improvement across key indicators. Parental involvement increased steadily, demonstrating that parents became more engaged and proactive in supporting their children's learning. Teachers' implementation of responsive guidance improved substantially, reflecting increased competence in applying empathetic, student-centered strategies and in facilitating two-way communication with parents. Correspondingly, student learning outcomes showed significant growth, with the proportion of students achieving high academic performance increasing in each trial and no students remaining in the low category by the final trial. These results indicate that integrating responsive guidance into a structured parental assistance management framework can effectively enhance students' motivation, engagement, and academic achievement. From a practicality standpoint, both teachers and parents evaluated the model as user-friendly, clear in its step-by-step procedures, and adaptable to real-world school and home contexts. The model provided structured guidelines, monitoring instruments, and reflective activities that encouraged ongoing feedback and continuous improvement. Teachers reported that these tools supported their professional development and ability to address learning challenges, while parents felt more confident in their role as active partners in the educational process.

Overall, the model presents a comprehensive, evidence-based approach that combines management, guidance, and participatory principles to improve the quality of elementary education. It contributes theoretically by integrating guidance and counseling with structured parental involvement, and practically by offering a replicable framework for schools to foster meaningful collaboration with families.

## REFERENCES

- Abraham, K. G., & Mallatt, J. (2022). Measuring Human Capital. *Journal of Economic Perspectives*, 36(3), 103–129. <https://doi.org/10.1257/JEP.36.3.103>
- Adeleye, B. N., Bengana, I., Boukhelkhal, A., Shafiq, M. M., & Abdulkareem, H. K. K. (2022). Does Human Capital Tilt the Population-Economic Growth Dynamics? Evidence from Middle East and North African Countries. *Social Indicators Research*, 162(2), 863–883. <https://doi.org/10.1007/S11205-021-02867-5>
- Brajša-Žganec, A., Merkaš, M., & Šakić Velić, M. (2019). The relations of parental supervision, parental school involvement, and child's social competence with school achievement in primary school. *Psychology in the Schools*, 56(8), 1246–1258. <https://doi.org/10.1002/PITS.22273>
- Brodny, J., & Tutak, M. (2024). A multi-criteria measurement and assessment of human capital development in EU-27 countries: A 10-year perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(4), 100394. <https://doi.org/10.1016/J.JOITMC.2024.100394>
- Canzittu, D. (2024). A framework for defining a guidance approach support: typology, concepts, and practice guidelines. *British Journal of Guidance & Counselling*, 52(3), 564–579. <https://doi.org/10.1080/03069885.2023.2285322>
- Çetin, M. (2024). Innovation, Global Competitiveness and Human Development Index: EU Cluster Case. *Istanbul Gelisim University Journal of Social Sciences*, 11(2), 559–574. <https://doi.org/10.17336/IGUSBD.1318161>
- Chacón, R., Fan, S., & Maturana-Russel, P. (2024). Higher education and national governance: comparison of their relationship with talent. *International Journal of Education Economics and Development*, 15(3), 412–429. <https://doi.org/10.1504/IJEED.2024.139316>
- Grolnick, W. S. (2015). Mothers' motivation for involvement in their children's schooling: mechanisms and outcomes. *Motivation and Emotion*, 39(1), 63–73. <https://doi.org/10.1007/S11031-014-9423-4/FIGURES/1>
- Grolnick, W. S., & Pomerantz, E. M. (2022). Should parents be involved in their children's schooling? *Theory Into Practice*, 61(3), 325–335. <https://doi.org/10.1080/00405841.2022.2096382>
- Jankowska, D. M., & Karwowski, M. (2019). Family factors and development of creative thinking. *Personality and Individual Differences*, 142, 202–206. <https://doi.org/10.1016/J.PAID.2018.07.030>
- Reeves, T. C. (2006). How do you know they are learning? The importance of alignment in higher education. *International Journal of Learning Technology*, 2(4), 294. <https://doi.org/10.1504/IJLT.2006.011336>
- Rossiter, D. E., & Crock, M. (2006). Embedding e-learning: a new perspective on change and innovation. *International Journal of Learning Technology*, 2(4), 279. <https://doi.org/10.1504/IJLT.2006.011335>
- Shilets, E., Dmytrychenko, L., Kravchenko, V., Sokrutenko, O. A., & Klochkova, O. (2025). Human capital in the competitive advantages determinants system in terms of territories sustainable development. *AIP Conference Proceedings*, 3276(1). <https://doi.org/10.1063/5.0267888>
- Wulandari, Y., S., R., & Ilham, D. (2024). Unleashing Student Creativity: A Dynamic Look at "Merdeka Belajar" Curriculum's Impact. *Online Submission*, 5(1), 21–33. <https://doi.org/10.46966/ijae.v5i1.371>