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THE USE OF A SELF-INSTRUCTION-BASED CTL MODEL TO ENHANCE LEARNING FOCUS IN HYPERACTIVE STUDENTS

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ABSTRACT

Objective: This study aims to describe the implementation of a Contextual Teaching and Learning (CTL) model integrated with self-instruction techniques and to analyze changes in attention, on-task behavior, and impulse control among hyperactive students in an inclusive elementary classroom.

Research Design & Methods: A qualitative interactive case study design was employed. The primary subjects were students identified by teachers as exhibiting hyperactive characteristics within the ADHD spectrum, supported by classroom teachers and school staff as informants. Data were collected through classroom observations, questionnaires (teachers and students), and semi-structured interviews. Data were analyzed using interactive techniques (data reduction, display, and conclusion drawing), with source and method triangulation as well as member checking to ensure credibility.

Findings: The integrated CTL–self-instruction model was implemented through structured stages (modeling, inquiry with diagnostic assessment and contextual video, questioning, learning community, constructivism, reflection, and authentic assessment). The findings indicate consistent improvement across focus-related indicators: increased duration of attention, better compliance with instructions, reduced impulsive behavior, and greater task completion independence. Questionnaires further revealed enhanced engagement, improved self-control, clearer task understanding, and higher learning interest.

Contributions: The study provides practical and conceptual insights into adaptive instructional strategies that strengthen executive functioning and self-regulation in inclusive classrooms.

Novelty: This research proposes a systematic integration of constructivist CTL stages with cognitive-behavioral self-instruction phases, prioritizing focus and behavioral regulation rather than solely academic achievement.

Keywords: Contextual Teaching and Learning, Self-instruction, Inclusive Education

JEL codes: I21, I29, D91
Article type: research paper

INTRODUCTION

Students with hyperactive traits typically exhibit behavioral patterns such as difficulty sitting still, frequently switching activities without completing tasks, speaking or acting impulsively, and experiencing difficulty sustaining attention on a single stimulus for a relatively long period of time. These characteristics align with symptoms on the Attention-Deficit/Hyperactivity Disorder (ADHD) spectrum, which significantly impact academic engagement, sustained attention, and the ability to consistently follow classroom instructions. Difficulties with self-regulation and executive control are key factors influencing the academic performance of students with hyperactivity (Harrison et al., 2020). This condition requires a pedagogical approach that is not only focused on delivering content but also on strengthening self-regulation functions and behavior management in inclusive classrooms.

The context of inclusive education, teachers are required to design learning experiences that are adaptive, flexible, and tailored to individual needs. One relevant approach is the Contextual Teaching and Learning model, which emphasizes the connection between learning materials and students' real-life experiences. CTL promotes the construction of meaning through the processes of experiencing, inquiry, questioning, learning communities, modeling, reflection, and authentic assessment. Sabudu (2025) research indicates that contextual and experience-based learning approaches contribute to increased engagement and motivation, particularly among students with special needs, as the material becomes more meaningful and relevant.

Neuropsychologically, students with ADHD experience impairments in executive functions such as response inhibition, planning, and self-monitoring. Therefore, cognitive-behavioral interventions are among the recommended approaches in educational settings. The Self-Instruction technique is a strategy that trains individuals to use internal dialogue (self-talk) systematically to guide behavior, control impulses, and maintain focus on tasks. Through the stages of modeling, overt self-guidance, faded self-guidance, and covert self-instruction, students are trained to internalize instructions as a self-regulation mechanism. A recent meta-analysis indicates that self-regulation interventions based on self-instruction effectively improve attention and behavioral control in children with hyperactive symptoms (Pandey et al., 2018). This approach has also been shown to enhance task engagement (on-task behavior) and sustained concentration in inclusive classroom settings.

The integration of CTL with self-instruction techniques is relevant because the two complement each other pedagogically and psychologically. CTL provides a meaningful and authentic learning context, while self-instruction offers learners an internal structure to manage their responses and attention during the learning process. In practice, teachers can link the material to real-life situations, then incorporate self-talk scripts such as "I'll read this calmly first," "I'll focus on one task," or "I'll finish this before moving on." This strategy enables students not only to understand the material contextually but also to develop metacognitive awareness of their own learning process. Research on classroom interventions combining contextual approaches and self-regulation strategies shows significant improvements in learning focus and task persistence compared to conventional learning (Cunha et al., 2023).

Given this urgency, this study focuses on the implementation of a self-instruction-based CTL model to improve the learning focus of hyperactive students in an inclusive educational setting. This study aims not only to describe the process of applying contextual learning integrated with internal dialogue techniques as a self-regulation strategy, but also to analyze changes in students' attention, on-task behavior, and impulse control during the learning process. Theoretically, this study aims to examine the implementation of a self-instruction-based Contextual Teaching and Learning (CTL) model and to analyze its impact on students' attention, on-task behavior, and impulse control in an inclusive elementary classroom. The novelty of this study lies in the development of an implementable design that systematically integrates the CTL stages (relating, experiencing, applying, cooperating, transferring) with the phases of self-instruction (from modeling to internalization) into a single integrated learning scheme focused on enhancing the learning focus of hyperactive students, rather than solely on academic outcomes. Thus, this study offers an integrative pedagogical model that has not been extensively explored in previous research, particularly in the context of inclusive classrooms at the elementary school level, and therefore has the potential to serve as a practical and conceptual reference for teachers in designing adaptive, structured, and sustainable learning experiences.

LITERATURE REVIEW

Contextual Teaching and Learning (CTL)

Contextual Teaching and Learning (CTL) is a learning approach that actively engages students in the learning process to discover the concepts being studied by connecting that knowledge to students' real-life experiences. CTL encourages students to connect learning materials with real-world situations and to construct knowledge independently through their own experiences, as explained by Piaget's view that learning provides students with opportunities to try new things by relating their experiences and building their own understanding (Selvianiresa & Prabawanto, 2017).

CTL helps teachers connect learning materials to students' real-world situations and encourages students to make connections between the knowledge they possess and its application in daily life. This approach involves seven key components of contextual learning: constructivism, questioning, inquiry, learning communities, modeling, and authentic assessment (Zulaiha, 2016). These characteristics allow CTL to be applied across various subjects and learning themes in alignment with existing strategies and steps.

This learning approach does not merely focus on delivering content but also incorporates a variety of strategies that encourage active student engagement, such as inquiry-based learning, problem- and project-based learning, cooperative learning, and authentic assessment that reflects students' actual abilities. In practice, the learning process is designed to foster dynamic collaborative interactions between teachers and students, thereby creating a more participatory and meaningful classroom environment. Learning activities are also designed to remain student-centered and engaging, by connecting the material being studied to real-life contexts to make it easier to understand and more relevant. Additionally, this approach integrates various other essential skills, such as critical thinking, communication, and collaboration, ensuring that students not only grasp concepts theoretically but are also able to apply them in real-world situations (Glynn & Winter, 2004).

Self-Instruction

Self-instruction is a key concept in modern education that emphasizes an individual's ability to independently direct and manage their own learning process. This approach is rooted in the idea that learners are not merely recipients of information, but active participants involved in the planning, implementation, and evaluation of their learning. In this context, self-instruction is closely related to self-regulated learning and self-

directed learning, both of which highlight the importance of self-control, learning awareness, and individual responsibility in effectively achieving learning objectives (Panadero, 2017).

Conceptually, self-instruction can be understood as a learning strategy that involves the conscious use of cognitive and metacognitive processes to manage learning activities. Through this approach, learners are trained to set goals, select appropriate strategies, monitor their learning progress, and reflect on the results achieved. Thus, self-instruction not only enhances understanding of the material but also strengthens critical thinking, problem-solving, and independent learning skills—all of which are essential in the 21st century (Broadbent & Fuller-Tyszkiewicz, 2018). This approach has also proven effective in supporting technology-based learning and digital learning environments that demand a high degree of autonomy from students.

The process of self-instruction is often integrated into systematic teaching models, particularly to support students with special needs or learning difficulties. It involves several stages, such as task orientation, providing examples of thinking strategies, independent practice, and reinforcement and reflection. Teachers act as facilitators who provide gradual scaffolding until students are able to learn independently (Wong et al., 2019). With this approach, students not only understand the subject matter but also develop the ability to continuously manage their own learning process. In instructional design, self-instruction is part of a strategy grounded in learning theories and instructional models designed to stimulate appropriate cognitive processes (Khalil & Elkhider, 2016; Seel et al., 2017). This approach aims to create effective learning experiences by considering learner characteristics and the learning environment, as well as the optimal use of media and methods to guide learners in the self-directed learning process.

Focusing on Students with Hyperactivity

Students with hyperactivity, often associated with Attention Deficit Hyperactivity Disorder (ADHD), exhibit key characteristics such as difficulty focusing attention, impulsive behavior, and excessive motor activity. In an educational setting, this condition directly impacts their ability to maintain focus, follow instructions, and complete tasks systematically. Recent studies indicate that students with ADHD tend to experience impairments in sustained attention and self-control, making them easily distracted by environmental stimuli or internal thoughts (Mansyur et al., 2024). It is clear, therefore, that learning focus is not merely a cognitive ability but is also closely linked to executive functions that regulate behavior and decision-making.

The focus of learning for hyperactive students encompasses three main components: attention control, sustained concentration, and task persistence. Research by Ardianti et al., (2025) indicates that hyperactive students experience significant fluctuations in attention during the learning process, particularly during activities that require sustained high concentration over extended periods. This condition leads to inconsistency in academic performance and often results in an inability to complete tasks optimally. Therefore, learning focus in this group needs to be understood as a dynamic process influenced by internal factors (neurological and psychological) as well as external factors (learning environment and teaching strategies).

The literature on education indicates that improving the learning focus of hyperactive students is significantly influenced by the implementation of structured and adaptive learning strategies. Strategies such as simplifying instructions, conducting learning in short sessions, using positive reinforcement, and varying activities have proven effective in helping students maintain their attention (Wardhani, 2026). Additionally, a self-regulated learning approach also plays a crucial role in training students to control their own behavior and thought processes. This approach encourages students to set learning goals, monitor progress, and reflect on learning outcomes, thereby gradually improving their ability to focus and their independence in learning.

Structured activity-based interventions and contextual learning experiences have also been shown to improve learning focus in hyperactive students. Recent research indicates that activities such as project-based learning and structured sensory games can significantly improve students' attention and engagement because they align with their active nature and need for high stimulation (Saragih & Azizah, 2025). Thus, developing learning focus in hyperactive students requires not only appropriate pedagogical approaches but also a learning environment designed to holistically support their cognitive and behavioral needs.

METHODS

This study employs a qualitative approach, specifically an interactive qualitative case study. This approach was chosen because the study aims to obtain a comprehensive, in-depth, and contextual description of the implementation of the self-instruction-based Contextual Teaching and Learning (CTL) model in improving the learning focus of hyperactive students. The case study allows the researcher to explore the phenomenon intensively within the real-world context of classroom learning, thereby yielding a comprehensive understanding of the implementation process, the dynamics of interaction, and changes in student behavior during the intervention. Interactive qualitative research emphasizes the direct collection of data from the subjects and their environment to construct meaning and enable conceptual development based on field findings (Rusandi & Rusli, 2021). This method was specifically designed to examine how the implementation of the self-instruction-based CTL model functions as an instructional intervention to address students' difficulties in maintaining attention, controlling impulsive behavior, and sustaining task engagement in an inclusive classroom.

The study was conducted at an elementary school with an inclusive learning environment. The research subjects were students who exhibited hyperactive characteristics based on classroom teachers' observations, such as difficulty sustaining attention, impulsive behavior, and excessive motor activity. Supporting informants included classroom teachers and school staff involved in the learning process. The data collected consisted of qualitative data gathered through observation, questionnaires, and interviews. Observations were conducted directly during the learning process to monitor the implementation of self-instruction-based CTL and changes in students' learning focus, using an observation guide that included indicators of the ability to sustain attention, follow instructions, control distracting behaviors, and demonstrate persistence in completing tasks. Questionnaires were administered to teachers and students to gather information regarding their perceptions of the learning model's implementation and the perceived changes in learning behavior. Semi-structured interviews were conducted with teachers and students to explore their experiences, challenges, and the impact of the model's implementation on improving learning focus.

Data analysis was conducted interactively through the stages of data collection, data reduction, data presentation, and drawing conclusions. The data obtained were selected and focused according to the research objectives, then presented in the form of descriptive narratives and thematic categorization to facilitate interpretation. Conclusions are drawn based on patterns and relationships emerging from the data and are continuously verified to ensure the consistency of findings (Rusandi & Rusli, 2021). To ensure the validity of the data, this study employed source triangulation and methodological triangulation by comparing the results of observations, questionnaires, and interviews, as well as conducting member checks with informants to ensure that the researchers' interpretations align with the actual conditions in the field.

RESULT

The results of the study indicate that the implementation of the Contextual Teaching and Learning (CTL) model, supported by self-instruction methods, was carried out in accordance with the instructional syntax and had a positive impact on the learning focus of hyperactive students. The instruction took place in a class of 29 students, with one student absent. Seating was arranged in rows, with two students per desk. In general, the classroom atmosphere was active and participatory; however, two students with hyperactive characteristics exhibited impulsive behavior and difficulty sustaining attention.

The CTL implementation process is carried out through a series of stages, including modeling, inquiry, questioning, learning community, constructivism, reflection, and assessment. During the modeling stage, the teacher establishes a learning atmosphere through routine activities such as prayer, recitation of the Asmaul Husna, handshaking, recitation of the Pancasila, and apersepsi by asking about students' well-being and reviewing previous material. The inquiry stage begins with a diagnostic assessment to determine students' initial understanding of the cooperative work material, followed by the screening of a video based on the Pancasila Student Profile using a projector and the school's audio system. During the questioning stage, nearly all students actively participate and eagerly answer questions related to the practice of cooperative work in daily life. The learning community and constructivist stages were demonstrated through contextual discussions that linked the material to students' real-life experiences within their family environments. During the reflection and assessment stage, the teacher summarized the material and provided five short-answer questions as a learning evaluation.

The results of the observation showed that after implementing the self-instruction method, hyperactive students were able to sit quietly, follow instructions, and complete assessment questions independently. Teachers also used various instructional techniques, such as chants, silent clapping, and a personalized approach, to improve student attention. Based on interviews with homeroom teachers, this method helped create a more conducive classroom atmosphere, especially considering that first grade is a transitional period from kindergarten to elementary school, which is still dominated by playful behavior and high energy. From a cognitive perspective, most students were able to achieve learning objectives, as evidenced by their ability to answer assessment questions well. From an affective and motivational perspective, students demonstrated high enthusiasm and were active in responding to the teacher's questions.

During the lesson, two hyperactive students exhibited behaviors such as making noise during roll call, standing up without permission to answer questions, and having difficulty sitting still. To address this situation, the teacher implemented the self-instruction method as part of a Cognitive Behavioral Therapy (CBT) approach. The teacher approached the students and provided instructions using positive affirmations and reflective questions such as, "Are there two students with the same name in this class?" so that the students became aware of their behavior and calmed down. Additionally, the teacher established a rule that only the student sitting the calmest was allowed to come forward to answer. This strategy effectively guided behavior without causing pressure.

The implementation of the self-instruction-based Contextual Teaching and Learning (CTL) model demonstrates changes in learning focus among hyperactive students. These changes were identified through direct observation during the learning process, questionnaires completed by teachers and students, and in-depth interviews with homeroom teachers.

Table 1. Changes in Students' Learning Focus Indicators Before and After the Implementation of Self-Instruction-Based CTL

Learning Focus Indicators	Initial Condition	After Implementation of Self-Instruction-Based CTL
Maintaining attention	Easily distracted, frequently looking away	Able to maintain attention for longer periods during learning
Following instructions	Often ignores the teacher's instructions	More responsive and follows learning steps in a focused manner
Impulsive behavior	Often speaks or moves without permission	Decreased intensity of impulsive behavior
Persistence in completing tasks	Tasks are often left unfinished	Tasks are completed independently and thoroughly

Consistent improvements were observed across all learning focus indicators. Students who were easily distracted and tended to exhibit impulsive behavior at the beginning of the study were able, following the implementation of self-instruction-based CTL, to sustain their attention for longer periods, follow instructions more effectively, and complete tasks independently. These findings indicate that integrating contextual learning with self-regulation strategies has a positive impact on behavior control and learning concentration among hyperactive students.

In addition to the directly observed behavioral changes, this study also examined teachers' and students' perceptions of the implemented learning model. These perceptions were gathered through a questionnaire designed around aspects of learning engagement, self-control, understanding of task steps, and interest in learning.

Table 2. Teacher and Student Perceptions of Learning After the Implementation of Self-Instruction-Based CTL

Aspects Evaluated	Teacher Perception	Student Perception
Engagement in learning	More positively engaged	Learning feels more interesting
Self-control	Better able to control behavior	Easier to manage oneself while learning
Understanding of task steps	More structured	Easier to understand instructions
Interest in learning	Increased	More enthusiastic about participating in learning

The survey results indicate positive perceptions among both teachers and students. Teachers noted that students became more actively engaged and better able to manage their behavior during lessons. Meanwhile, students stated that learning felt more engaging, easier to understand, and boosted their motivation to learn. These findings reinforce the observational results that the self-instruction-based CTL approach impacts not only behavioral aspects but also students' motivation and learning experiences.

To ensure the validity of the data, this study employed source triangulation by comparing the results of observations, questionnaires, and interviews. Triangulation was conducted to assess the consistency of findings across various data sources, thereby ensuring that the conclusions drawn are more valid and reliable.

Table 3. Summary of Research Findings Based on Data Sources

Data Source	Key Findings	Conclusions
Observation	Increased attention span and reduced distracting behavior	Improved focus on learning
Questionnaire	Positive perceptions of the learning method	An effective and engaging model
Interview	Self-instruction helps with self-control	Self-regulation develops

All three data sources indicate consistent findings: an increase in learning focus and the development of self-regulation among hyperactive students. Observations indicate an increase in attention span and a decrease in distracting behaviors; the questionnaire reveals positive perceptions of the learning model; while interviews confirm that self-instruction techniques help students control themselves. The consistency of these findings reinforces the conclusion that the implementation of self-instruction-based CTL is effective in improving the learning focus of hyperactive students.

DISCUSSION

The findings of this study indicate that the implementation of the Contextual Teaching and Learning (CTL) model, supported by self-instruction methods, can improve students' focus on learning while creating a more conducive and structured classroom environment. This improvement is evident in students' ability to maintain attention, follow instructions, and complete tasks in a more structured manner compared to before the intervention. The CTL model promotes meaningful learning because the material is not presented abstractly but is linked to concrete experiences relevant to students' lives. When learning has direct relevance to daily reality, students tend to be more cognitively and emotionally engaged, leading to more optimal concept internalization.

Conceptually, CTL emphasizes the importance of linking learning materials to real-life contexts. This perspective aligns with Halawa et al., (2022) and Sihono (2012) who state that CTL helps teachers connect learning materials to the real world so that students can establish connections between knowledge and its application in daily life. In this study, linking the concept of gotong royong with community service practices at home and in the surrounding environment was shown to increase students' active participation. They not only understood the concept theoretically but were also able to reflect on personal experiences and relate them to the social values being learned. This process strengthens knowledge construction while fostering social awareness.

The effectiveness of CTL implementation is also enhanced through diagnostic assessments conducted at the early stages of learning. These assessments enable teachers to identify students' initial abilities, specific needs, and level of readiness before designing appropriate learning strategies. Haratua et al., (2023) emphasize that diagnostic assessments serve as the foundation for determining approaches that align with students' characteristics. In the context of this study, assessment results help teachers adjust the intensity of support, activity variations, and classroom management techniques for hyperactive students. Support from school facilities such as projectors, audio systems, and educational video media also plays a significant role in creating engaging and interactive learning, as noted by Faudillah et al., (2023) who state that the availability of adequate learning tools significantly influences the success of the learning process.

Self-instruction, on the other hand, directly contributes to the management of hyperactive behavior. This technique trains students to give themselves instructions through verbal stages—starting with external guidance from the teacher, followed by verbal repetition, and culminating in internalization in the form of a whisper or inner dialogue. Flores (2017) states that self-instruction is effective in helping hyperactive children improve self-control and behavioral regulation. In practice, teachers apply a persuasive and reflective approach, rather than a repressive one. Students are encouraged to understand the consequences of their behavior and are then guided to say positive affirmations such as "I can focus" or "I must finish my tasks first." This process fosters self-awareness and the ability to control impulses gradually.

Overall, the integration of CTL and self-instruction has a comprehensive impact on improving the quality of learning in inclusive classrooms. Not only does it enhance students' focus on learning, but it also boosts their motivation, independence, sense of responsibility, and active engagement in every stage of the learning process. The combination of a constructivist contextual approach with cognitive-behavioral self-regulation strategies has proven effective in accommodating the characteristics of hyperactive students in early elementary school classrooms. Thus, this model can be recommended as an adaptive, humanistic, and relevant alternative for inclusive learning strategies to create meaningful, conducive, and student-centered learning.

CONCLUSION

This study demonstrates that integrating the Contextual Teaching and Learning (CTL) model with self-instruction techniques is effective in improving the learning focus and self-regulation of hyperactive students in inclusive elementary school classrooms. Through a qualitative case study approach using data triangulation (observation, questionnaires, and interviews), it was found that the application of CTL syntax contextualized with real-life experiences, combined with gradual cognitive-behavioral-based internal dialogue, helps students sustain attention longer, follow instructions more responsively, reduce impulsive behavior, and complete tasks more independently and thoroughly. Support from varied classroom management strategies and a personal-reflective approach further strengthens the effectiveness of implementation. Conceptually and practically, this study confirms that the integration of constructivist (CTL) and cognitive-behavioral (self-instruction) approaches presents a humanistic, adaptive, and practical learning model for inclusive classrooms, particularly during the transition phase of early elementary school. The novelty of this research lies in its integrated implementation design, which systematically aligns the stages of CTL with the phases of self-instruction, with a primary focus on strengthening learning focus and self-regulation, rather than solely on academic achievement. This model has the potential to serve as a conceptual and practical guide for teachers in designing structured, reflective, and sustainable learning experiences for students with hyperactive traits.

REFERENCES

Ardianti, S. D., Sumaji, Evanita, Supratiwi, M., Wanabuliandari, S., & Tanghal, A. B. (2025). Analysis of Focused Attention Levels in Science Learning among Children with Hyperactivity: A Study in a Special Education Setting. *Jurnal Pendidikan IPA Indonesia*, *14*(4). https://doi.org/10.15294/jpii.v14i4.34339

Broadbent, J., & Fuller-Tyszkiewicz, M. (2018). Profiles in Self-regulated Learning and Their Correlates for Online and Blended Learning Students. *Educational Technology Research and Development*, *66*(6), 1435–1455. https://doi.org/10.1007/s11423-018-9595-9

Cunha, J., Guimarães, A., Martins, J., & Rosário, P. (2023). A Self-Regulation Intervention Conducted by Teachers in a Disadvantaged School Neighborhood: Implementers' and Observers' Perceptions of Its Impact on Elementary Students. *Children*, *10*(11), 1795. https://doi.org/10.3390/children10111795

Faudillah, A. N., Armanila, A., Munthe, A. F., & Khairi, R. (2023). Pentingnya Administrasi Sarana dan Prasarana Pendidikan. *Ta'rim: Jurnal Pendidikan Dan Anak Usia Dini*, *5*(1), 32–39. https://doi.org/10.59059/tarim.v5i1.823

Flores, G. W. R. (2017). Self-instructional cognitive training to reduce impulsive cognitive style in children with Attention Deficit with Hyperactivity Disorder. *Electronic Journal of Research in Education Psychology*, *13*(35), 27–46. https://doi.org/10.14204/ejrep.35.13051

Glynn, S. M., & Winter, L. K. (2004). Contextual Teaching and Learning of Science in Elementary Schools. *Journal of Elementary Science Education*, *16*(2), 51–63. https://doi.org/10.1007/BF03173645

Halawa, A., Telaumbanua, A., & Zebua, Y. (2022). Penerapan Model Pembelajaran Cooperative Learning Untuk Meningkatkan Hasil Belajar Siswa. *Educativo: Jurnal Pendidikan*, *1*(2), 582–589. https://doi.org/10.56248/educativo.v1i2.84

Haratua, C. S., Dessuko, A. D., Mawarda, A., Damayanthi, D., Suryaningtyas, H., & Tyas, W. T. (2023). Asesmen Kurikulum Merdeka Belajar di Sekolah Dasar. *Jurnal Inovasi Pendidikan MH Thamrin*, *7*(2), 145–157. https://doi.org/10.37012/jipmht.v7i2.1911

Harrison, J. R., Evans, S. W., Baran, A., Khondker, F., Press, K., Noel, D., Wasserman, S., Belmonte, C., & Mohlmann, M. (2020). Comparison of Accommodations and Interventions for Youth with ADHD: A Randomized Controlled Trial. *Journal of School Psychology*, *80*, 15–36. https://doi.org/10.1016/j.jsp.2020.05.001

Khalil, M. K., & Elkhider, I. A. (2016). Applying Learning Theories and Instructional Design Models for Effective Instruction. *Advances in Physiology Education*, *40*(2), 147–156. https://doi.org/10.1152/advan.00138.2015

Mansyur, M. I., Handayani, A., & Rakhmawati, D. (2024). Perilaku Peserta Didik Attention Deficit and Hyperactivity Disorder (ADHD) dalam Pembelajaran. *Tematik: Jurnal Penelitian Pendidikan Dasar*, *3*(1), 56–60. https://doi.org/10.57251/tem.v3i1.1403

Panadero, E. (2017). A Review of Self-regulated Learning: Six Models and Four Directions for Research. *Frontiers in Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.00422

Pandey, A., Hale, D., Das, S., Goddings, A.-L., Blakemore, S.-J., & Viner, R. M. (2018). Effectiveness of Universal Self-regulation–Based Interventions in Children and Adolescents. *JAMA Pediatrics*, *172*(6), 566. https://doi.org/10.1001/jamapediatrics.2018.0232

Rusandi, & Rusli, M. (2021). Merancang Penelitian Kualitatif Dasar/Deskriptif dan Studi Kasus. *Al-Ubudiyah: Jurnal Pendidikan Dan Studi Islam*, *2*(1), 48–60. https://doi.org/10.55623/au.v2i1.18

Sabudu, D. (2025). Students' Learning Engagement In Contextual Teaching And Learning Strategies Management: The Voices From English Education Classroom. *Tadbir : Jurnal Studi Manajemen Pendidikan*, *9*(2), 623–642. https://doi.org/10.29240/jsmp.v9i2.14070

Saragih, Y. V., & Azizah, N. (2025). Enhancing Attention and Focus in Children with ADHD Through Structured Sensory Play Based on Project-Based Learning. *Journal of Innovation and Research in Primary Education*, *4*(3), 1861–1870. https://doi.org/10.56916/jirpe.v4i3.1963

Seel, N. M., Lehmann, T., Blumschein, P., & Podolskiy, O. A. (2017). *Instructional Design for Learning*. SensePublishers. https://doi.org/10.1007/978-94-6300-941-6

Selvianiresa, D., & Prabawanto, S. (2017). Contextual Teaching and Learning Approach of Mathematics in Primary Schools. *Journal of Physics: Conference Series*, *895*, 012171. https://doi.org/10.1088/1742-6596/895/1/012171

Sihono, T. (2012). Contextual Teaching And Learning (CTL) Sebagai Model Pembelajaran Ekonomi dalam KBK. *Jurnal Ekonomi Dan Pendidikan*, *1*(1). https://doi.org/10.21831/jep.v1i1.673

Wardhani, M. K. (2026). Strategi Pembelajaran Siswa Dengan Gangguan Pemusatan Perhatian dan Hiperaktivitas di Kelas Inklusi. *Jurnal Armada Pendidikan*, *4*(1), 172–181. https://doi.org/10.60041/jap.v4i1.385

Wong, J., Baars, M., Davis, D., Van Der Zee, T., Houben, G.-J., & Paas, F. (2019). Supporting Self-Regulated Learning in Online Learning Environments and MOOCs: A Systematic Review. *International Journal of Human–Computer Interaction*, *35*(4–5), 356–373. https://doi.org/10.1080/10447318.2018.1543084

Zulaiha, S. (2016). Pendekatan Contextual Teaching And Learning (CTL) Dan Implementasinya Dalam Rencana Pembelajaran PAI MI. *Belajea: Jurnal Pendidikan Islam*, *1*(1), 41–60. https://journal.iaincurup.ac.id/index.php/belajea/article/view/84