



## The Impact of Active Deep Learner Experience on Learning in Elementary Schools

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### **Abstract**

*This study was motivated by the widespread diffusion of innovation in learning, particularly in elementary schools. Innovation in learning is a crucial and potential necessity as a step toward improving the quality of education. One form of innovation that has emerged in learning is the application of Adaptive Deep Learner Experience (ADLX) learning. This study employs a literature review method, involving the screening of previous studies related to the implementation of ADLX in elementary school education. Data collection was conducted through the extraction of relevant information from each literature source, including reputable national and international journals. The data obtained were then analyzed qualitatively. This study aims to explore and synthesize the impact of ADLX implementation on learning in elementary schools. The results of the study indicate that the continuous implementation of ADLX has a positive impact in various aspects related to learning in elementary schools. The implication of these findings is that ADLX has great potential as an innovative and effective learning alternative to be applied in elementary school education.*

**Keywords:** *adaptive deep learner experience, learning, elementary school*



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### **Introduction**

The development of learning in elementary education has undergone a significant transformation in recent times. This development is marked by the emergence of new paradigms in learning as a result of the development of the times. Currently, special learning in elementary education has entered the concept of education in the 21st century which emphasizes the development of various student abilities, ranging from critical thinking skills, the ability to be creative, the ability to construct knowledge, the ability to solve problems, to the ability to master learning well (Syahputra, 2024). This kind of learning produces a paradigm shift in the learning process which is followed by curriculum modifications, the use of new hierarchies in learning, and the integration of technology into it (Rosyid & Mubin, 2024). These changes

will have an impact on the emergence of new innovations in learning, especially at the elementary education level.

In line with the development of education, there has been a lot of diffusion of innovation in learning, especially in elementary education. In the scope of elementary education, diffusion of innovation occurs by involving the dissemination and adoption of new practices that aim to realize improvements in the quality of learning and education for students (Sinaga & Fauzi, 2024). Innovation in learning is a crucial need and also has the potential as a step to improve the quality of elementary education in Indonesia. The answer to the challenges of learning in the 21st century has given rise to one form of learning innovation in the form of the emergence of a new, innovative form of learning (Sutanto, 2024). The urgency of the emergence of a new form of learning lies in the ability of the education system in Indonesia to be able to adapt to the needs of 21st century learning which demands high-level thinking skills and student learning independence.

One of the results of innovation in the form of learning that has been discovered today is Active Deep Learner Experience (ADLX) as a result of the integration of Active Learning and Deep Learning, with the aim of providing meaningful and in-depth learning experiences to the minds of students. Active Learning focused on the active involvement of students in discussion activities, problem solving, and reflection, while Deep Learning emphasizes the learning process that has an impact and is able to change student behavior by paying attention to student interactions with the learning environment (Uwais & Mujiburrohman, 2023). The ADLX approach not only directs students to behave actively in learning activities through various activities, but also provides learning experiences and development of deep-thinking skills.

The implementation of ADLX in learning emphasizes increasing student involvement in learning by encouraging character development, implementing disciplined behavior, and encouraging a deep understanding of the subject matter (Kurniawan & Mahmuda, 2023). In addition, the implementation of ADLX in learning is able to present an active and in-depth learning experience for students, thus providing a significant impact in the form of changes in the knowledge, skills, attitudes, and character of students for the better (Syamsuddin & Yasen, 2023). The implementation of ADLX in learning requires teachers to be able to develop various strategies and

techniques in delivering material and implementing effective learning through activities to enrich and expand learning resources and strive to increase simulative interactions with students (Lailie & Dewi, 2022). In conclusion, ADLX is the latest innovation in learning that integrates Active Learning and Deep Learning to gain increased student engagement and in-depth understanding of the material that has a significant positive impact on student knowledge, skills, attitudes, and character. Thus, ADLX is present as one part of learning that is important to be deepened in the context of implementing learning, especially in elementary schools.

Nowadays, research on ADLX in elementary schools has been widely conducted. However, there are still some gaps in the comprehensive understanding of various aspects of learning in elementary schools. The results of the latest research show that the implementation of ADLX in elementary school learning is carried out through individual aspects, interaction, observation, and reflection, which can develop students' abilities to be independent in learning activities, but is only limited to a few students. This finding shows that further studies or research are still needed to understand the factors that influence the effectiveness of ADLX implementation in elementary school learning. Other research on the implementation of ADLX in elementary school learning shows that there are learning activities that lead students to participate in active and in-depth learning experiences through collaboration between teachers and students so that students obtain more complex learning based on their respective abilities and skills (Juliana et al., 2025). This finding provides an indication that the potential of ADLX as an alternative learning can encourage more effective learning, but still requires a systematic study to understand its impact as a whole.

Based on the findings of previous studies, the researcher sees an urgency to conduct a systematic synthesis of various studies related to ADLX on elementary school learning and its impacts. This study is important considering that the results of previous studies show several gaps in understanding and information regarding the effectiveness of ADLX in various contexts of implementing elementary school learning. Thus, this study aims to comprehensively explore the impact of ADLX implementation on elementary school learning as a basis for developing learning practices.

### **Research Method**

The method used in this study is a literature review method that aims to explore and synthesize relevant research related to the impact of ADLX on learning in elementary schools. The literature search strategy applied in this study involves several keywords, such as: "Active Deep Learner Experience (ADLX)", "Active Deep Learner Experience (ADLX) in elementary school", and "Active Deep Learner Experience (ADLX) in learning in elementary schools". The literature search was carried out with the help of Publish or Perish software (PoP) via database Google Scholar. The literature review search was conducted based on the research objectives and measurable inclusion criteria (Aromataris & Rittano, 2014).

The inclusion criteria applied in this literature search include several criteria. First, published scientific articles with the topic of implementing ADLX in the context of elementary school education and its impact on learning in elementary schools. Second, articles that use Indonesian and English, while articles in languages other than these two are not used. Third, the literature data used was sourced from reputable national and international journals that had undergone peer review. So other literature such as theses, dissertations, papers, books and proceedings are not used. Fourth, is an article published in 2018-2025. Fifth, the articles used are articles that examine the implementation of ADLX in learning in elementary schools. So, articles that examine ADLX in learning at other levels of education are not used. Sixth, the article used is an article with a qualitative research approach.

The data collection process was carried out through the extraction of relevant information from each selected scientific study. The information in question includes the purpose of the study, the methods used, the main findings, and the implications of the research results. The data that had been obtained were then analyzed qualitatively to identify key themes, trends, and gaps in the literature regarding the impact of ADLX implementation on learning in elementary schools. Finally, all findings were synthesized to present a comprehensive picture or explanation related to the research topic.

### **Result and Discussion**

The literature search in this study resulted in six studies exploring the implementation of ADLX and its impact on learning in elementary schools. These

studies present results related to the implementation of ADLX in learning in elementary schools. A presentation of the reviewed studies can be seen in Table 1.

**Table 1** Summary of research articles on the application of ADLX in learning in elementary schools

No	Studies	Research Purpose	Method	Implication
1	Implementation of learning approaches active deep learner experience in building learning independence in elementary school students (Kontesa et al., 2023)	This study aims to analyze the application of the ADLX learning approach in building student learning independence in elementary schools.	This research was conducted using a case study method through several stages, namely literature study, formulation of research problems, data collection in the field, data processing and analysis, and research reporting	The implementation of ADLX is a potential approach to building student learning independence through the application of aspects of individuality, interaction, observation, and reflection. However, the impact of ADLX in building learning independence is still limited to some students who receive more optimal intervention. In its implementation, ADLX places teachers as facilitators who design and package learning by providing active and in-depth learning experiences.

**Key Findings:**

The implementation of ADLX is carried out by applying 4 keywords, namely individualization, interaction, observation, and reflection. The ADLX approach packages learning by providing real learning experiences through direct practice and prioritizing broad interactions between students and teachers, students with students, and students with materials. In elementary school learning, the implementation of ADLX is considered capable of fostering student learning independence.

2	Active Deep Learner Experience Learning Design on Islamic Education Learning (Kurniawan & Mahmuda, 2023)	This study has the main objective to conduct an analysis of the ADLX-based learning design in the PAI subject at SDIT Kuntum Insan Cemerlang. More specifically, the purpose of this study is to analyze the three main components in the ADLX learning design in the form of learner experience, active learning, And deep learning.	This research was conducted by applying qualitative methods and making the instrument as the key to determining the depth of data and research results. This research obtained data through observation, interviews, and documentation studies which were then analyzed through data reduction, data presentation, data verification, and drawing conclusions.	ADLX can be an innovative learning method development. ADLX design provides an interactive and relevant learning material development to optimize student understanding of the material in learning. In addition, the ADLX approach is a model that is expected to be applied to other institutions.
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**Key Findings:**

The main components in ADLX as a whole have an impact on the formation of student character during its implementation. Learner experience focused on fostering positive interactions between teachers and students and creating a family atmosphere. Active learning implemented through religious and literacy activities to enrich students' understanding. Deep learning realized by reaping the results that students can carry out daily practice applications related to learning materials outside the delivery of materials in

No	Studies	Research Purpose	Method	Implication
	class. Overall, the implementation of ADLX contributes to the development of students' critical and analytical thinking skills.			
3	Improving Science Literacy Skills through ADLX-Based STEM Learning Model (Sugiyarto, 2024)	The purpose of this study is to improve SCIENCE literacy skills in grade IV elementary school students through the application of ADLX in learning	The type of research used is Classroom Action Research or PTK. The research stages use the Kurt Lewin model consisting of planning, action, observation, and reflection. As a basis for measuring the increase in SCIENCE literacy, researchers use several data collection techniques, in the form of observation, tests, and assessment rubrics. Then the data obtained are analyzed using qualitative descriptive analysis.	ADLX-based learning can be an alternative learning method that can improve elementary school students' SCIENCE literacy skills. The implementation of ADLX helps students to be more enthusiastic and active in learning and serious in making projects and better understand the relationship between SCIENCE and real life.

**Key Findings:**

The findings in this study indicate a significant increase in the activeness and learning outcomes obtained by students in learning. This study explains that ADLX has a positive impact on learning in elementary schools, such as student activeness in learning can increase significantly and provide a drastic increase in the acquisition of learning outcomes by students during learning activities. In addition, the findings state that during learning using ADLX, students appear more enthusiastic in participating in learning and better understand worldly aspects related to the material provided.

4	Implementation of the Kauny Method Using the ADLX - Introfle Approach to Improve the Quality of Tahfidz Learning Based on Digitalization at SD-It Hafizul Ilmi (Artati et al., 2024)	Specifically, this study aims to determine to what extent the ADLX approach can help students to activate their memory in learning.	The selection of research methods in this study is descriptive qualitative which focuses on the implementation of ADLX in the process of learning the Qur'an. The instruments in this study consist of interviews, documentation, and memorization-based evaluations.	Through the ADLX approach, students will have access to more interactive and personalized learning, as well as more accurate and faster feedback. The implementation of ADLX will help students improve their reading quality and motivate them to continue learning.
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**Key Findings:**

The research findings state that the implementation of an ADLX-based learning method is a fun approach for students in learning. The ADLX approach applied has an impact on the involvement of comprehensive memory which results in more effective learning, increased memory, and reduced pressure on students' memory in learning.

No	Studies	Research Purpose	Method	Implication
5	Implementation of ADLX-based learning with an integrated approach to improve students' PAI learning achievement (Utami et al., 2024)	This study aims to determine the implementation of ADLX-based learning using an integrated approach at SD IT Permata Mulia.	The research was conducted using a descriptive qualitative method. This research is a field research where researchers go directly to the field and observe learning to understand the implementation of ADLX with an integrated approach.	The improvement in achievement that occurs from the implementation of ADLX does not only focus on academics, but also on students' manners and behavior to be better. The success of the implementation of ADLX will be achieved if the teacher is able to present a comfortable atmosphere during the learning process.

**Key Findings:**

The results of the study showed that the implementation of ADLX was carried out by teachers with the aim of improving student achievement. With the implementation of ADLX, learning runs effectively as evidenced by the finding that the implementation of ADLX provides a focus on providing a joyful learning experience by balancing student abilities and levels of difficulty in learning. Through the implementation of ADLX, students are able to build their self-confidence and creativity so as to improve their performance and motivation to learn continuously.

6	Implementation of Active Deep Learner Experience (ADLX) Introfex-based learning in Science Learning for Grade V in Elementary Schools (Juliana et al., 2025)	Specifically, this study aims to describe the implementation process of ADLX and identify its impact on students' activities, understanding, and engagement in learning. In addition, this study also aims to explain how the implementation of ADLX can be an innovative alternative in improving the quality of science learning in elementary schools.	The research method used is a descriptive qualitative approach. Data collection techniques include interviews, observations, and documentation studies with the research subjects being schools, teachers, and students.	This approach is designed to create a deep, meaningful learning experience and enhance students' conceptual understanding. With a more personal, interactive and reflective approach, students not only understand the concept theoretically, but are also able to apply it in everyday life.
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**Key Findings:**

The research findings state that the implementation of ADLX makes teachers explore students' potential to the maximum with the aim of creating opportunities and accommodating students' needs in learning. Overall, science learning in elementary schools that implement ADLX shows learning activities that bring students to feel or experience active and deep learning experiences through student and teacher collaboration to create an active learning environment.

*Results of literature analysis on implementation Active Deep Learner Experience in learning in elementary school*

Active Deep Learner Experience (ADLX) is a learning innovation that integrates three important approaches in learning, namely active learning, deep learning, and experience learning. Learning with the ADLX approach is designed to actively involve students in the learning process through in-depth learning involving holistic experiences (Ismiatiningsih et al., 2023). The learning process with the ADLX approach consists of several activities, such as reviewing, exploring, formulating, presenting, applying, and linking findings in learning with everyday life that prioritizes accommodation of students' learning styles in learning (Uwais & Mujiburrohman, 2023). The source of experience in the ADLX approach does not only come from student interaction with content or learning materials, but also includes interaction with teachers and peers during the learning process (Hartini & Suherman, 2024). Like an innovation in learning, the ADLX approach has an impact that is proven by several previous research findings. The impacts that emerge are a positive form as a result of the application of ADLX as an alternative in implementing learning, especially in elementary schools.

Study Kontesa, Minsih, & Fuadi (2023) explains that the ADLX approach focuses on packaging learning to provide learning experiences for students as learners who use all learning interactions as a reference. The implementation of ADLX has a positive impact in the form of building student learning independence through 4 key aspects, namely individualization, interaction, observation, and reflection. Individualization in this approach is packaged with a personal approach from teacher to student. Interaction in this approach is facilitated through an activity group discussion which is continued with observation through assessment during the learning process, and presents continuous reflection in learning. Although the implementation of ADLX provides an improvement in the development of student learning independence, however, the implementation of individualization and interaction is still limited to only a few students. Thus, further studies to overcome this inequality still need to be realized, especially in learning in elementary schools.

Study Kurniawan & Mahmuda (2023) explains ADLX as a learning that not only includes learner activities, but must also be able to stimulate deep thinking. Research findings show that ADLX brings an innovation in education, especially in learning in elementary schools. Its realization involves recording learning for monitoring and



evaluation of follow-up. This makes the implementation of ADLX provide an impact in the form of improving the quality of learning, character formation of students, development of critical and analytical thinking skills of students. The formation of student character in the study was proven by focusing on the formation of several student characters, in the form of straight faith, correct worship, mature personality and noble morals, sincerity, discipline, the ability to read and understand the Qur'an, broad insight, and life skills.

Research findings from Sugiyarto (2024) explain that the term ADLX comes from a phrase learning experience which refers to various interactions in the student's learning environment adaptive learning which focuses on the learning process with active student participation. The research findings show that student activity has increased significantly from 33% to 97% after the implementation of ADLX and a significant increase in learning outcomes from 53% to 93% after the implementation of ADLX. These findings indicate that an ADLX-based learning model can improve students' SCIENCE literacy as evidenced by the two previous aspects. In addition, the positive impact of ADLX is that it makes students become more enthusiastic learners and more in-depth in learning materials.

Artati et al (2024) research shows that research findings in the form of the application of ADLX combined with another learning method can be implemented well and show a positive impact. The implementation of ADLX is carried out by prioritizing teacher involvement in the learning process. This involvement is reflected in the management of learning, the application of portfolios, and the implementation of assessments by teachers at each meeting. In addition, the implementation of ADLX in learning makes the learning process enjoyable for students and involves students' memory comprehensively. Thus, ADLX has an impact in the form of more effective learning, increasing student memory, and reducing the learning pressure found by students in participating in learning activities.

Research conducted by Utami et al (2024) Utami et al (2024) explains that the meaning of learning in ADLX learning is that the presence of interaction in the learning process will provide a learning experience for students. As a result, the implementation of ADLX is able to provide a joyful learning experience by adjusting to students' abilities and adjusting to the level of difficulty in learning. Through this approach, students can construct their self-confidence and creativity which will result in students' performance

and motivation to learn continuously. Overall, the implementation of ADLX is said to be able to improve student achievement both academically and non-academically as evidenced by students' ability to interpret and apply learning materials in their daily lives.

Research by Juliana et al (2025) shows the impact of ADLX on teachers being able to explore students' potential to the fullest and enable students to experience active and in-depth learning experiences through collaborative activities in the learning environment. Similar to before, the implementation of ADLX is carried out using an individuality, interaction, observation, and reflection approach with the aim of increasing the success of collaboration between each individual in the learning environment. Through ADLX, students and teachers can collaborate well and enable students to receive more complex but understandable learning because it is in accordance with their abilities. At the end of the implementation of ADLX, learning in elementary schools experienced an increase as seen from increasing student involvement and the development of critical thinking skills that occurred.

The presentation of research findings from the literature review above produces several main points that are the impact of implementing ADLX in learning in elementary schools. First, improve students' independence and quality of learning. As other research findings explain that when learning independence and good learning quality are met, it will provide intrinsic motivation to students and present engagement deep in the learning process (Brandisauskiene et al., 2023). Second, develop character and thinking skills. Learning that is able to improve these two aspects is a learning that has great potential to be present as a positive innovation in learning in elementary schools. This is based on the crucial foundation of students to prepare themselves to face the complexity of the 21st century starting with their character and thinking skills (McLoughlin & Kristjánsson, 2024; Sakti et al., 2024; Wagner et al., 2020). Third, create effective and enjoyable learning. Recent studies have shown that enjoyable and active learning has a significant impact on students' academic achievement in elementary school (Li et al., 2023; Montero-Izquierdo et al., 2024; Morris et al., 2021), this shows that such learning is one of the good learning to be implemented. Fourth, improve performance and collaboration. Fifth, improve student activity and learning outcomes. Thus, the implementation of ADLX in elementary school learning has a positive impact

on educational progress and becomes a new potential in realizing good quality education in elementary school level.

### **Conclusion**

The implementation of ADLX in elementary school learning has continuously shown positive impacts in various matters related to learning. ADLX increases students' learning independence, character, thinking skills, achievement, activeness, and learning outcomes in the implementation of learning in elementary schools. The ADLX approach has proven to be an effective learning approach because it has successfully integrated fundamental components in the modern education era, namely active learning, in-depth learning, and learning based on student experience. The ADLX approach has proven to be able to have an impact on improving the quality of learning, making learning effective and enjoyable, and creating collaboration in every learning actor. This statement is very relevant to the needs of education in responding to the challenges of the 21st century which tend to be more complex, especially in the implementation of learning.

Based on the conclusion of the research results, ADLX shows great potential as an innovative and effective learning alternative to be applied at the elementary education level. Its main advantage is the improvement of student independence and learning quality, which in turn fosters intrinsic motivation and deep engagement in the learning process. In addition, ADLX effectively develops character and thinking skills, which are crucial foundations for students to face the complexities of the 21st century. This approach also successfully creates an effective and enjoyable learning environment, which has been proven to have a significant impact on students' academic performance. Overall, the implementation of ADLX leads to improved performance, collaboration, and comprehensive student engagement and learning outcomes. However, the implementation of ADLX also found several challenges, especially in the equalization of individualization and interaction for all students. Based on the analysis of research findings, the following are suggestions that can be used as a means to increase the effectiveness of the implementation of ADLX in elementary school learning. The implementation of ADLX in learning is greatly influenced by the ability of teachers related to complex learning management. Therefore, a special program is needed to train educators in a comprehensive understanding of the ADLX concept and to conduct

continuous assessments to monitor student development in real terms and adjustments to needs in each learning.

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