

Implementation of Deep Learning Approach on Learning English at SMP Islam Tathmainul Quluub

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Abstract. This study analyzed the use of deep learning approaches in English teaching at SMP Islam Tathmainul Quluub, Sindang, Indramayu, focusing on meaningful, mindful, and joyful learning. Using a qualitative case study method, the research included participatory observation, in-depth interviews, and documentation analysis. The findings indicated that educators successfully applied three main aspects of deep learning while adapting to the local context. Meaningful learning was achieved by connecting lessons to local issues, mindful learning through planned metacognitive strategies, and joyful learning by incorporating local cultures. Teachers faced challenges with digital infrastructure when implementing hybrid learning models, and focused on strengthening their skills through ongoing professional development. Positive impacts included improved critical thinking, character development, social skills aligned with the '6C' concept, and increased student motivation. This research offered a novelty of application model that demonstrated how schools in coastal areas could transform learning by integrating cognitive, social-emotional, and cultural elements.

Keywords: Deep Learning, Approach, English Learning

Introduction

In contrast to surface approaches, which concentrate on memorization, deep learning, as proposed by Marton and Säljö (1976) and Biggs and Tang (2011), entails a comprehensive engagement with the materials, designing comprehension, meaningful connections, and the capacity to apply knowledge across contexts. This transformation of the learning paradigm becomes a necessity in the face of the ever-changing dynamics of the age. The conventional model that's always been the preeminent, which emphasizes the linear transfer of knowledge from teacher to trainee. Now, it's not enough to meet the needs of the modern era.

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Conventional teaching methods are often viewed as inefficient in improving students' critical and creative skills, which is a major need in the working world as well as in everyday life.

The digital age required a more relevant and contextual method of learning. Meaningful learning is a learning process that not only provides information, but it also connects material to real experiences that are relevant to student life. This contextualization facilitates students to understand and apply knowledge gained in various situations, so that they are more prepared to face the complexity and challenges of the modern era. Other than that, contextual learning also encourages students to participate more actively in the learning process, increases their motivation and interest in study material.

Innovation in learning becomes essential to prepare the students for the complexity of today's environment. In the context of education, deep learning is one approach that shows promise. In the context of education, "deep learning" refers to a deep and comprehensive learning process, despite the fact that the term is frequently associated with artificial intelligence technology. This approach places a strong emphasis on developing advanced thinking abilities like analysis, synthesis, and assessment as well as a deeper comprehension of the content being studied.

Deep learning, first introduced by Mars and In 1976, is a method of learning that focuses on understanding the meaning and connections between concepts. This approach to learning emphasizes a deeper understanding of subjects through a holistic learning experience, where students are involved not only mentally but also emotionally in their learning. Suwandi et al (2023) state that this method aims to shift from traditional learning approaches that emphasize memorization and repetition of information, towards a more constructive and reflective way of learning. This shift allows students to not only grasp the learning content but also enhance their critical thinking, creativity, and problem-solving abilities. So, The gaps among my research is on how this concept of deep learning could be fit in school of coastal areas.

Next, Haryanti (2024) provides a more thorough explanation of deep learning as an approach to learning that prioritizes comprehension of ideas in depth rather than only memorization or fast fact recognition. This method's primary goal is to guarantee that students grasp a concept's fundamentals and are able to apply them to real-world situations. This method pushes students to have a more comprehensive and cohesive understanding so they can use what they've learned in a range of contexts and circumstances. As a result, deep learning equips students with the abilities necessary to overcome obstacles in the real world in addition to preparing them for academic tests.

Hattie (2020) describes deep learning as a method that emphasizes conceptual understanding and critical use of knowledge. In his research, Hattie (2012) reveals that the application of a deep learning strategy has an effect size of 0.69, which shows a significant positive influence on the results of the students' studies. In line with that. Darling-Hammond (2017) describes deep learning as a learning process involving active involvement of students in the discovery and application of major concepts, who support students in developing critical thinking skills and preparing them for the challenges in the real world.

The necessity of using the 21st century and critical deep learning skills. Astuti (2024) expands on the notion of deep learning by identifying the key competencies, or "6c": citizenship, cooperation, communication, creativity, and critical thinking. According to the study, schools that use the deep learning approach saw a notable increase in students' motivation and critical thinking abilities. Next, research by Fitriyani & Nugroho (2022) demonstrates that critical thinking, creativity, communication, and teamwork are supporting factors for the implementation of the 21st century. Students use these skills to solve problems through critical and creative thinking, convey ideas, ask questions, communicate effectively, and work together to accomplish their goals.

The use of deep learning in elementary and secondary education requires careful modifications, with students taking cognitive development traits into consideration. According to Vygotsky's social constructivism theory, children's deep learning is supported by the proximal scaffolding and zone (Tohari and Rahman, 2024).

According to Kim & Kwon (2023), South Korea has supported basic education with deep learning. A system-based learning artificial intelligence program designed specifically for junior high school pupils was developed by the South Korean government in partnership with high-tech firms. In addition to helping pupils comprehend the curriculum, the technology could track their mental health and analyze behavioral trends.

Deep learning applications are in line with the principles of the free curriculum that lead to free study and project-based learning (Sari, 2023). This idea is supported by Tempo (2024), which shows that the deep learning approach will be an important element in the national education system, with the support of the minister's regulations and a complete teacher training program. This approach is based on three key elements: learning means, learning with consciousness, and fun learning.

According to Hidayat (2023) assumes the in learning, teacher must conduct a humanistic approach that emphasizes the individual learner's needs, potential, and holistic development, focusing on emotional well-being, personal growth, and self-actualization alongside academic learning. It's a student-centered approach that prioritizes intrinsic motivation and personal responsibility, with teachers acting as facilitators rather than traditional authorities. Humanistic learning recognizes the importance of positive emotions like motivation and self-esteem, while also addressing negative emotions like anxiety and stress. This approach leads to meaningful learning.

Meaningful learning in the crucial state of deep learning helps students understand the teaching material in a profound and thorough manner. Hafidzhoh et al. (2023) said that this process covered the incorporation of new information and knowledge possessed by students. The cognitive process not only adds new information but also forms a complex and interconnected network. When students actively linked his new phenomenon, they had learned, they created a profound understanding and lasting, different from learning via rote tends to be shallow.

The application of meaningful learning in educational practice involves various teaching strategies that encourage students to build their own understanding. English teachers create learning activities that allow students to explore the connection between new concepts and their daily experiences. The

contextual and relevant use of examples supports students in understanding the practical application of concepts being studied. For instance, in math classes, teachers might relate algebraic ideas to real-world scenarios, like personal financial planning or measures in daily tasks, to help students grasp the connection and immediately benefit from what they study.

Other than that, meaningful learning also emphasizes the cruciality of learning that focuses on students, where students are given the opportunity to engage actively in the learning process. Teaching Approaches like group discussion, collaborative projects, and independent research serve as a major tool to increase this active engagement. That's why students don't just function as recipients of information, but also as a source of knowledge, which can apply the concepts that have been studied in different and challenging contexts.

As a second component, mindful learning is crucial for increasing students' awareness and involvement in the learning process. According to Dipitera (2024), this tactic motivates pupils to develop into thoughtful teachers. Studying with compassion requires more than just concentration. However, it also entails a rise in metacognitive awareness, which aids pupils in comprehending and controlling their own learning process. To put it another way, students are instructed to focus not just on the content they are studying but also on how they study, the strategies they employ, and how to make their learning more efficient.

Money et al. (2023) present empirical findings that demonstrate the efficacy of mindful learning in enhancing several facets of learning. Research indicates that this approach is crucial for fostering original thought, boosting intelligence, and enhancing metacognitive awareness. More importantly, the development of creativity and critical thinking skills has been positively correlated with mindful learning. Individuals that engage in mindful learning are typically better able to analyze data in-depth, evaluate many points of view, and come up with creative solutions to problems.

In the practice of learning, the Application of mindful learning requires a plan of activities that encourages reflection and self-awareness. Teachers can incorporate practices such as reflection journals, where students record their experiences and thoughts about the learning process; metacognitive discussions, which involve open conversations about learning strategies and challenges faced; as well as constructive feedback sessions, which help students identify excellence and aspects that need to be improved in their learning process. These activities not only increase student participation but also help them in developing self-management skills essential for academic and personal success.

Full of learning, as the third element, adds a significant emotional dimension to the learning process. Nur (2019) confirms that this method combines the activation element, Creativity, Effectiveness, and joy in the learning process. Creating a pleasant learning atmosphere does not reduce the learning core, but rather increases its effectiveness. A pleasant learning atmosphere can add to the intrinsic motivation of students, making them more passionate and enthusiastic in facing academic challenges.

Designing educational activities that incorporate gaming aspects, creativity, and exploration is known as joyful learning. Teachers can use strategies like creative projects, which let students express their ideas through art, design, or other media; game-based learning, which presents lessons through engaging educational

games; and cooperative activities, which promote teamwork and positive social interactions. Because they find learning to be engaging and useful, students feel more comfortable and inspired to study.

Joyful learning approaches also pay attention to the students' psychological and emotional factors, creating a learning atmosphere that promotes cognitive and social-emotional development in a balanced way. For example, Teambuilding activity, Roleplay, and open discussions about personal experience can help students improve social skills, like empathy, Effective communication, and collaboration. Other than that, a pleasant and positive environment can reduce stress and anxiety that often arise during the learning process, so students can learn more efficiently and optimally.

The integration of these three elements in the learning process requires careful planning and a deep understanding of the characteristics of the student. Teachers must design a learning experience that combines meaningful aspects, mindful, and joyful in balance, creating learning that is not only efficient but also meaningful and enjoyable for students. And in addition, the teacher should also give good feedback to the students after getting a good answer from them. As Prawiro & Anggrarini (2019) said that it is really beneficial for the teacher to use potential rewards in creating good classroom management.

Despite the fact that these three teaching approaches have enormous potential to enhance education, very little research has been done on deep learning applications in the first high school, particularly in areas that are not metropolitan. One of the first junior high schools in the Indramayu area to attempt using a deep learning strategy to address the problem of raising the standard of instruction in the digital age was SMP Islam Tathmainul Quluub. These schools' unique physical and social contexts present a chance to look into how deep learning techniques may be modified and used in simple educational settings in coastal regions. The objectives of this study are to: (1) describe how a deep learning strategy was implemented at SMP Islam Tathmainul Quluub; (2) pinpoint the challenges encountered in doing so; and (3) examine the impact of using deep learning approaches on achievement.

This research are expected to be able to provide a thought contribution in the form of the development of a relevant deep learning application model for primary schools in Indonesia, especially in non-metropolitan areas. This is urgent for the government to have policies based on the findings of the researches and especially, this research. Because, these research findings can practically be a reference in the development of education policy as well as operational guidelines for other primary schools that want to implement a deep learning approach. Next, this study is expected to provide clear advice to schools and teachers in maximising the application of deep learning methods to improve the quality of education in the Islamic Tathmainul Quluub high school, as well as contribute to the improvement of human resource quality in the district of Indramayu.

The relevance of this research becomes even more important given the research gap regarding the application of deep learning at the junior high school level, particularly in the Indonesian context. Most research on deep learning in Indonesia focuses on secondary and higher education, while studies at the junior high school level are still very limited. Furthermore, to date, this study will analyse how deep learning can be adapted to the specific characteristics and needs of junior

high schools in coastal areas, which face different challenges and potential issues compared to schools in large urban areas.

Method

In order to investigate the application of deep learning at SMP Islam Tathmainul Quluub, Sindang, Indramayu, this study used a case study design and a qualitative methodology. Clark (2023) emphasized that case studies are well-suited for research that investigates the "how" and "why" of a phenomenon, particularly in real-world contexts where the researcher has limited control over the events being studied.

The research location was selected intentionally, considering the uniqueness of SMP Islam Tathmainul Quluub as a junior high school in a coastal area that has initiated the implementation of deep learning. Dewi et al. (2023) emphasized the importance of selecting a case study that offers the highest learning potential. The principal, instructors, and students who were chosen using a purposive sampling technique according to their roles in the teaching and learning process made up the research subjects.

Three primary strategies of procedure to collect the data were used in the triangulation method of data collecting in this research. Using structured observation criteria based on Ministry of Education indicators, the first step is participant observation of the deep learning learning process. Second, to have a thorough understanding of implementation, conduct in-depth interviews with key informants. Third, learning resources, student work, and school policy documents were analyzed as part of the documentation investigation.

Intensive interviews were conducted using a semi-structured approach, allowing for in-depth exploration of participants' experiences and perspectives. Fadli (2021) emphasized that in-depth interviews provide researchers with the opportunity to explore the nuances and complexities of educational program implementation. The interview protocol was developed with attention to the specific role of each informant in the implementation process.

The study's documentation provides crucial information regarding the policy structure and practices of deep learning implementation. Document analysis included learning tools such as lesson plans, teaching materials, and evaluation tools, as well as student products demonstrating the impact of the implementation. Fadli (2021) emphasized the importance of document analysis in providing context and validating findings.

The three systematic steps of Miles, Huberman, and Saldana's interactive model were used for data analysis. The data condensation process involves selecting and grouping unprocessed data. The data presentation stage organizes the information in a format that allows for conclusions to be drawn. The verification process involves testing initial hypotheses using supporting evidence.

This interactive model consists of three components: data reduction, data display, and conclusion drawing/verification. Data reduction simplifies and transforms raw data through coding, summarizing, and finding themes. Data display presents the reduced data visually, using matrices, graphs, or charts to facilitate interpretation. Conclusion drawing/verification interprets the displayed data, draws inferences, validates findings against original sources, and develops explanations.

The interactive nature of this model means that researchers cycle back and forth between these stages, refining their understanding of the data as they move through the process. For example, new themes identified during conclusion drawing might lead to further data reduction or a different way of displaying the data. This iterative approach helps researchers develop a deeper and more nuanced understanding of the phenomenon under study.

Data validity was ensured through four trustworthiness criteria according to Husnailail et al. (2024). Data credibility was achieved through triangulation of sources and methods, as well as checking by informants. Transferability was supported by detailed, in-depth descriptions. Reliability and confirmability were strengthened through a systematic audit trail and peer discussions with experts in the field of deep learning.

Three systematic and well-organized steps comprised the research procedure. Developing the research design and tools was the main emphasis of the preparatory phase. Determining the research topic, reviewing the literature, creating a research question or hypothesis, and creating a study design are all part of this first step. It's about laying the groundwork for the research, ensuring clarity and focus before moving into the data collection phase. The implementation phase included in-depth field data collection. This stage focuses on the actual data collection and analysis. It involves gathering the necessary information using chosen methods, analyzing the data to identify patterns and insights, and interpreting the findings in the context of the research question. During the analysis phase, a comprehensive report was created and the data was thoroughly interpreted. Sharing the research results with the appropriate audience is the last step. Writing a research report, giving presentations at conferences, publishing in journals, or using other communication methods might all fall under this category. It's about adding to the corpus of knowledge and making the research findings easily available. This study used procedure of a qualitative descriptive method to analyse the data of how the implementation of deep learning approach on learning English at SMP Islam Tathmainul Quluub.

Ethical aspects were a primary focus throughout the research, in line with the recommendations of Husnailail et al. (2024). Informed consent was obtained from all participants, with special attention paid to students requiring parental consent. Information confidentiality was scrupulously upheld, and participants were informed of the analysis's findings to guarantee accuracy.

The chosen methodology enabled an in-depth exploration of deep learning implementation. Fadli (2021) emphasized that a qualitative approach provides insights into participants' experiences, offering a valuable understanding of the learning change process. In order to produce descriptive, contextualized data, qualitative research investigates intricate social circumstances, individual viewpoints, and subjective experiences in an effort to comprehend the "why" and "how" underlying occurrences.

Findings and Discussion

This research's result base on the problem of study is how the implementation of deep learning takes place in learning English at SMP Islam Tathmainul Quluub. This research demonstrates three primary interrelated patterns: joyful learning, attentive learning, and meaningful learning. A more

active and student-focused learning environment has been created at the school as a result of the substantial changes in educational practices brought about by this learning revolution.

In terms of meaningful learning, English teachers at SMP Islam Tathmainul Quluub have implemented impressive changes to make learning more contextual and meaningful. They do not only connect curriculum content to local issues in Indramayu District but also ensure that each lesson has a direct connection to students' lives. This remark is based on the data of interview that as part of their English education, students worked on a project to depict the possibilities of a nearby beach. This project offered practical experiences in using knowledge to explore the possibilities of their local wisdom in addition to theoretical instruction on environmental protection.

The idea put out by Hafidzhoh et al. (2023), which highlights the significance of relating new knowledge to students' experiences and real settings, is consistent with the meaningful learning approach used at this institution. English teachers developed a range of creative teaching strategies that allowed students to connect the material to real-world situations. Students' comprehension of the subject matter improved as a result, and learning became more pertinent and significant.

Base on the data of interview and observation, the implementation of mindful learning in English instruction at SMP Islam Tathmainul Quluub is carried out using planned and organized metacognitive strategies. English teachers develop a variety of strategies to help students reflect on their learning process, including the use of reflective notebooks, focus groups, and frequent feedback sessions. Students are assisted in determining the best learning styles for them, assessing the obstacles they face, and creating solutions.

This mindful learning practice supports Fitriyani and Nugroho's (2022) study on the significance of developing metacognitive awareness in deep learning. However, the results of this study provide a new dimension by demonstrating that implementing mindful learning in coastal schools requires specific adjustments. English teachers need to consider the local social and cultural context when designing reflection activities and utilize language and examples familiar to students' everyday experiences.

The success of educational institutions in integrating fun learning into daily activities is evident in the various learning innovations they create. By using traditional games, regional arts and culture, and hands-on activities that directly involve students, English teachers are able to successfully create a joyful learning atmosphere. This approach helps to preserve the local cultural history while also making learning more interesting.

A distinctive aspect of the implementation of joyful learning at SMP Islam Tathmainul Quluub is the way the school incorporates elements of Indramayu culture into the learning process. English teachers modify traditional games and regional arts as learning tools, resulting in a learning experience that is not only entertaining but also rich in cultural values. This approach aligns with research by Darling-Hammond (2017) regarding the importance of creating fun learning experiences while maintaining the core of learning.

To address implementation challenges, the school devised various creative, adaptive strategies. Digital infrastructure constraints were not a barrier thanks to the innovation of a sophisticated hybrid learning model. This model combines

easy-to-use technology with experiential learning activities rich in hands-on experiences. Educators designed learning activities that could be implemented with or without technology, ensuring flexibility in the learning process.

The school's ongoing professional development program is a key solution to addressing teacher capacity challenges. The teacher mentoring system implemented not only facilitates the transfer of knowledge and skills but also builds a mutually supportive professional learning community. Experienced English teachers share their best knowledge and techniques, while new teachers receive guidance and assistance in implementing deep learning methods.

Students' critical thinking abilities have improved as a result of deep learning implementation. Students' capacity to analyze problems, assess information, and suggest creative solutions has significantly improved, according to an analysis of their work. In addition to receiving information, students are also capable of processing it and using it in a variety of situations.

One of the major benefits of deep learning at SMP Islam Tathmainul Quluub is the growth of students' social and character qualities. According to Astuti's (2024) "6C" idea, pupils make good improvement in environmental awareness, communication, and teamwork. They are now much better at working in teams, successfully communicating ideas, and demonstrating empathy for others.

The deep learning implementation model designed by SMP Islam Tathmainul Quluub provides a concrete example of how a school in a coastal area can make significant changes to the learning process. This success demonstrates that a lack of resources does not hinder the implementation of learning innovations, provided there is a solid commitment from all school elements and appropriate adaptation strategies.

This study sheds light on the use of deep learning in Indonesia's primary education system, especially in coastal regions. The findings offer crucial insights into how educational institutions might include cultural, cognitive, and socioemotional elements into the curriculum to give students a thorough and fulfilling education.

Conclusion

Three key components of learning—meaningful learning, mindful learning, and happy learning—were successfully combined by the teachers at SMP Islam Tathmainul Quluub, according to a study on the use of deep learning in English Lesson. The teaching strategies used at the school were significantly impacted by this development. As demonstrated by a water conservation initiative that integrated theory with hands-on practice in the community, meaningful learning was accomplished by contextualizing the subject with local challenges and students' lives.

Mindful learning was achieved through the planned implementation of metacognitive strategies, such as the use of reflective journals and focus group discussions. Teachers made specific adjustments based on the local sociocultural context, ensuring that the reflection activities and language used were relevant to students' daily experiences.

Meanwhile, joyful learning was integrated through learning innovations that utilized traditional games and local arts and culture from Indramayu, creating a learning environment that was not only enjoyable but also rich in cultural values.

In order to overcome implementation issues, the school created a hybrid learning model that integrated experiential learning activities with basic technology, along with an ongoing professional development program to improve instructors' abilities. Students' critical thinking abilities improved, their character and social skills were developed in line with the "6C" concept, and their enthusiasm to learn rose as a result. This achievement shows that if learning innovations are backed by a strong commitment and suitable adaption techniques, a lack of resources won't prevent them from being implemented. The implementation model at Islam Tathmainul Quluub provides a concrete example of how a school in a coastal area can make meaningful learning changes by integrating cognitive aspects.

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