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DEVELOPMENT OF A DEEP LEARNING-BASED CHARACTER BULDING AFFIRMATION MODEL IN INDONESIAN LANGUAGE LEARNING IN JUNIOR HIGH SCHOOL

PENGEMBANGAN MODEL AFIRMASI CHARACTER BULDING BERBASIS DEEP LEARNING DALAM PEMBELAJARAN BAHASA INDONESIA DI SMP

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Abstract

This study aims to develop a character building affirmation learning model based on a deep learning approach in the context of Indonesian language learning at the Junior High School (SMP) level. This approach emphasizes strengthening conceptual understanding and internalization of character values through reflective, collaborative, and meaningful learning activities. The study used the Design and Development Research (DDR) method with a 4D development model: Define, Design, Develop, and Disseminate. The research subjects consisted of grade VIII students and Indonesian language teachers at SMP. Data collection techniques included observation, interviews, documentation, expert validation, and questionnaires to students and teachers. The validation results by three experts—character education, educational technology, and Indonesian language teachers—showed that this model is very valid, with an average score of 90% in the content, construct, and technology aspects. A limited trial conducted on 30 grade VIII students showed that 87% of students felt that this model made it easier for them to understand character values in depth. In addition, teachers considered this model practical, interactive, and able to increase students' active involvement in the learning process. These findings indicate that the affirmation character building model based on deep learning is not only effective in building attitude competencies and understanding of values, but is also relevant to be applied in Indonesian language learning. This model has the potential to be an innovative approach in technology-based character education that supports pedagogical transformation at the junior high school level.

Keywords : Learning Model, Affirmation, Character Building, 4D.

Abstrak

Penelitian ini bertujuan mengembangkan model pembelajaran afirmasi character building berbasis pendekatan deep learning dalam konteks pembelajaran Bahasa Indonesia di tingkat Sekolah Menengah Pertama (SMP). Pendekatan ini menekankan penguatan pemahaman konsep dan internalisasi nilai karakter melalui aktivitas belajar yang reflektif, kolaboratif, dan bermakna. Penelitian menggunakan metode Design and Development Research (DDR) dengan model pengembangan 4D: Define, Design, Develop, dan Disseminate. Subjek penelitian terdiri dari siswa kelas VIII dan guru Bahasa Indonesia di

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SMP. Teknik pengumpulan data meliputi observasi, wawancara, dokumentasi, validasi ahli, serta angket kepada siswa dan guru. Hasil validasi oleh tiga ahli—pendidikan karakter, teknologi pendidikan, dan guru Bahasa Indonesia—menunjukkan bahwa model ini sangat valid, dengan skor rata-rata sebesar 90% pada aspek isi, konstruk, dan teknologi. Uji coba terbatas yang dilakukan terhadap 30 siswa kelas VIII menunjukkan bahwa 87% siswa merasa model ini memudahkan mereka memahami nilai-nilai karakter secara mendalam. Selain itu, guru menilai model ini praktis, interaktif, dan mampu meningkatkan keterlibatan aktif siswa dalam proses pembelajaran. Temuan ini menunjukkan bahwa model afirmasi character building berbasis deep learning tidak hanya efektif dalam membangun kompetensi sikap dan pemahaman nilai, tetapi juga relevan untuk diterapkan dalam pembelajaran Bahasa Indonesia. Model ini berpotensi menjadi pendekatan inovatif dalam pendidikan karakter berbasis teknologi yang mendukung transformasi pedagogi di tingkat SMP.

Kata Kunci : Model Pembelajaran, Afrimasi, Charahter Bulding, 4D.

1. INTRODUCTION

Character education has become a major issue in the national education system, especially after the curriculum reform. In facing global moral, social, and digital challenges, education is no longer sufficient to only emphasize cognitive aspects, but also needs to internalize character values in students. The Independent Curriculum emphasizes the importance of character as the main pillar in the Pancasila Student Profile (Kemdikbudristek, 2022). The Indonesian language subject has strategic potential in character formation, because it is rich in cultural content, ethics, and social values. However, its implementation in the classroom still tends to be textual and focuses solely on linguistic aspects. According to Rahmah & Kusuma (2021), many teachers have not explicitly and systematically integrated character values into learning, so that students have not gained meaningful affective experiences.

The dominant normative approach often does not answer students' needs in understanding the relevance of character values contextually. As stated by Syamsuddin (2020), character education will be more meaningful if delivered in an applicable manner and directly related to real life. Therefore, a learning model is needed that is able to integrate affective, cognitive, and social aspects simultaneously. The development of artificial intelligence technology, especially deep learning, opens up new opportunities in education to create more adaptive and personal learning. Deep learning can analyze students' learning patterns and provide specific feedback on their behavior and learning achievements (Wijaya & Nugroho, 2023). Although this technology is widely used in higher education, its application at the junior high school level, especially in character education, is still very limited.

The integration of character education and learning technology is a potential gap that has not been widely utilized. Fitriani & Herlambang (2022) stated that the use of AI in learning analytics can help teachers design more targeted learning interventions, including in the formation of positive behavior. Deep learning can identify student behavior patterns as a basis for providing data-based character affirmations. Character affirmations in this context are not just verbal praise, but rather a systematic strategy to strengthen positive values based on actual

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data from student behavior during the learning process. Lestari & Mahendra (2021) emphasized that observation-based and analytical affirmations have a deeper impact on the internalization of character values. Therefore, the development of a deep learning-based character affirmation model in Indonesian language learning is very relevant, especially to answer the challenges of post-pandemic education and the digital era. Pedagogical innovation that combines technology and character values can be a bridge between the demands of academic content and strengthening students' moral values (Hidayat et al., 2020).

This model is designed with a 4D development approach (Define, Design, Develop, Disseminate) to ensure validity, practicality, and effectiveness. The goal is not only to convey Indonesian language material, but also to instill character values such as responsibility, cooperation, and empathy. By utilizing student interaction data, the system can detect participation, consistency, and collaboration to produce personal and contextual character affirmations (Utami & Prasetyo, 2022). This study aims to develop a learning model that integrates character values and deep learning technology in the Indonesian language learning process, as well as to test the validity and effectiveness of the model in the context of learning in junior high schools.

Character education is a fundamental element in the development of students that not only emphasizes cognitive aspects, but also includes affective and psychomotor dimensions. Lickona (2019) defines character education as a conscious effort aimed at helping individuals understand, feel, and act based on good ethical values. At the Junior High School (SMP) level, character education becomes crucial because students are in an important psychosocial transition phase. Therefore, character education cannot be separated from formal learning, especially in value-based subjects such as Indonesian. The Indonesian Ministry of Education and Culture (2021) emphasizes the urgency of integrating character values in all subjects through a contextual, collaborative, and reflective learning approach. This is in line with the Strengthening Character Education (PPK) program which prioritizes five main values: religious, nationalist, independent, mutual cooperation, and integrity.

The affirmation model in education refers to a pedagogical approach that emphasizes strengthening self-identity, intrinsic motivation, and positive values of students. Affirmation is not limited to verbal praise alone, but includes learning strategies designed to foster positive self-beliefs and internalized values (Bandura, 2020). Within the framework of character education, affirmation is an important instrument to make students feel valued, cared for, and motivated to behave according to the values instilled. Reeve & Cheon (2021) stated that affirmation associated with strengthening autonomy and self-achievement has a positive impact on character formation and learning outcomes. Therefore, the integration of the affirmation model into the Indonesian Language curriculum can not only increase student participation but also deepen the internalization of noble national values.

The Indonesian language subject at the junior high school level plays a role not only as a means of communication, but also as a medium for the formation of national identity and character development of students. Learning Indonesian involves listening, speaking, reading,

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and writing skills combined with the instillation of cultural, ethical, and national values (Kemendikbudristek, 2023). However, the factual conditions in the field show that the approach to learning Indonesian is still predominantly textual and does not accommodate the affective aspects of students. For this reason, an innovative learning model is needed that is able to combine technology and character values, such as deep learning-based affirmations. This kind of model is considered capable of improving the quality of learning while shaping students' character in a sustainable manner. Deep learning is a branch of artificial intelligence (AI) that has the capability to study large-scale data in depth and in stages. In the world of education, this technology has begun to be applied for various purposes, including personalization of learning, detection of student emotions, and development of predictive models for learning outcomes (Li et al., 2022).

The integration of deep learning in character education opens up new possibilities for designing adaptive, responsive, and data-driven learning systems. For example, the system can analyze students' behavioral tendencies through facial expressions, word choices, or interaction patterns, then provide feedback in the form of affirmations or positive reinforcement automatically. Zhou et al. (2021) stated that the application of deep learning in learning systems can increase student engagement and strengthen positive emotional responses during the learning process. The deep learning-based character affirmation model developed in this study is based on constructivism and connectivism theories. According to Vygotsky, constructivism emphasizes that students build knowledge and values through meaningful social and environmental interactions. In this framework, affirmations act as social stimuli that support value formation.

Meanwhile, the connectivism theory introduced by Siemens (2019) states that knowledge is formed through connections between information nodes, including those based on technology. The application of deep learning represents complex information connectivity that helps the system provide personal and contextual affirmations. Both theories are the foundation for designing an affirmation model that is adaptive, contextual, and supports the internalization of character values in a sustainable manner.

2. RESEARCH METHOD

This research is included in the category of research and development (Research and Development/R&D) with the aim of designing a character building affirmation model based on deep learning for learning Indonesian at the junior high school level (Amelia et al., 2023). The selection of the R&D method is based on the focus of the research to produce educational products in the form of valid, practical, and effective learning models to be applied in the classroom (Nugraha, 2025). The development model used refers to the 4D approach (Define, Design, Develop, Disseminate) from Thiagarajan et al. (1974), with adjustments according to the context of developing technology-based character learning.

The Define stage begins with a needs analysis and literature review on the character of junior high school students, the actual conditions of Indonesian language learning, and the

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potential for integrating deep learning technology in education. This stage includes identifying problems and analyzing student characteristics as a foundation for designing a model. Next, the Design stage focuses on compiling the initial design of the learning model, including planning teaching tools, character affirmation flows, and a deep learning-based technology integration system.

The Develop stage includes the comprehensive development of the model, accompanied by validation by Indonesian language learning experts, educational technology experts, and character education experts. This process also includes limited classroom trials. Finally, the Disseminate stage is carried out through the dissemination of the model to other schools and the publication of research results in scientific forums and reputable journals, while accommodating input for further refinement.

The subjects of the study were teachers and students of grade VIII from one of the State Junior High Schools in [write the location of the district/city, for example: Yogyakarta City]. The subjects were selected purposively with the consideration that grade VIII students are in an important phase of character development, and already have basic skills in learning Indonesian.

Data collection was carried out using five main techniques: 1. Observation of the learning process to identify students' conditions and needs, 2. In-depth interviews with teachers and students to understand their perceptions of character affirmation and the use of technology, 3. Documentation of the syllabus, teaching modules, and learning materials used, 4. Expert validation of the content, construct, and appearance aspects of the model, 5. Questionnaires for students and teachers to measure the practicality and effectiveness of the model.

Data analysis was conducted through two approaches, namely qualitative and quantitative. Qualitative analysis was used to describe the process of model development, interviews, and feedback from experts. Meanwhile, quantitative analysis was used to assess the validity, practicality, and effectiveness of the model through validation scores, questionnaire results, and increased student learning outcomes after the implementation of the model. Effectiveness was tested with a pretest-posttest design in the experimental class to see the effect of the model on character formation and student learning outcomes.

3. RESULT AND DISCUSSION

The results of this study present empirical findings related to the development and implementation *of the Deep* Learning-based *Character Building Affirmation Model* in Indonesian learning at the junior high school level. The results of the research were obtained through a series of data collection and analysis processes that included the model design stage, learning implementation tests, and the responses of teachers and students to the application of the model. The presentation of results was focused on the effectiveness of the model in integrating character strengthening with meaningful learning, as well as on the dynamics of learning that occurred during the implementation process in the classroom.

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a. Define Stage (Needs Analysis)

The define stage begins with classroom observations, teacher and student interviews, and documentation studies related to Indonesian language learning. The results of the analysis show that there has been no systematic integration of character values in the learning process. Teachers tend to use lecture methods without a structured character affirmation mechanism. On the other hand, the use of technology in learning is still conventional and does not support a deep learning approach to strengthening student character. This situation emphasizes the need to develop a learning model that not only focuses on cognitive aspects, but is also able to internalize character values such as responsibility, honesty, cooperation, and empathy. Integration of adaptive technology that is able to provide personal feedback is very important. Therefore, the development of a deep learning-based character building affirmation model is a relevant and contextual solution to increase the effectiveness and depth of students' learning experiences in Indonesian language learning.

b. Design Stage (Affirmation Model Design)

Following up on the define stage, a Deep Learning-Based Character Building Affirmation Model was designed to internalize character values in Indonesian language learning in a meaningful and contextual way. This model consists of three main components:

1) Character value input: includes core values such as responsibility, honesty, cooperation, and empathy that are inserted into learning materials and activities.
2) Contextual learning activities: such as reading inspirational texts, writing character reflections, and discussing values that are designed to encourage reflective understanding and appreciation of values.
3) Adaptive digital affirmation based on deep learning: in the form of a digital module that allows teachers to provide automatic and personal affirmative feedback. This system analyzes student response patterns and generates character feedback.

The design of this model is flexible and can be applied to various Indonesian language learning topics. Deep learning technology allows accurate detection of student responses so that the affirmations given become more personal and meaningful.

c. Develop Stage (Model Implementation)

This model is implemented through a deep learning approach that emphasizes deep understanding of concepts and focused mastery of competencies. Students are actively involved in reflective and collaborative activities to explore character values through learning Indonesian. Teachers monitor the development of students' character through written reflections, discussions, and behavioral observations, then provide personal and constructive affirmations. This model makes the learning process more holistic and meaningful, encouraging students to understand and live character values in everyday life.

Table 1. Components and Features of the Character Building Affirmation Model

Key Feature Model	Components
Integrated Character Values	Responsibility, honesty, cooperation, empathy

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Learning Activities	Reading, writing character reflections, in-depth value-based discussions
Deep Learning Approach	Focused learning, deep understanding of concepts, active reflection
Teacher Affirmation	Personal positive feedback based on observation of the learning process
Teacher Monitoring and Evaluation	Observation, documentation of student character development on an ongoing basis

d. Expert Validation and Limited Trial

The Deep Learning-based Character Building Affirmation learning model has been validated by three experts consisting of character education experts, educational technology experts, and Indonesian language teachers.

Character Education model Validation Process

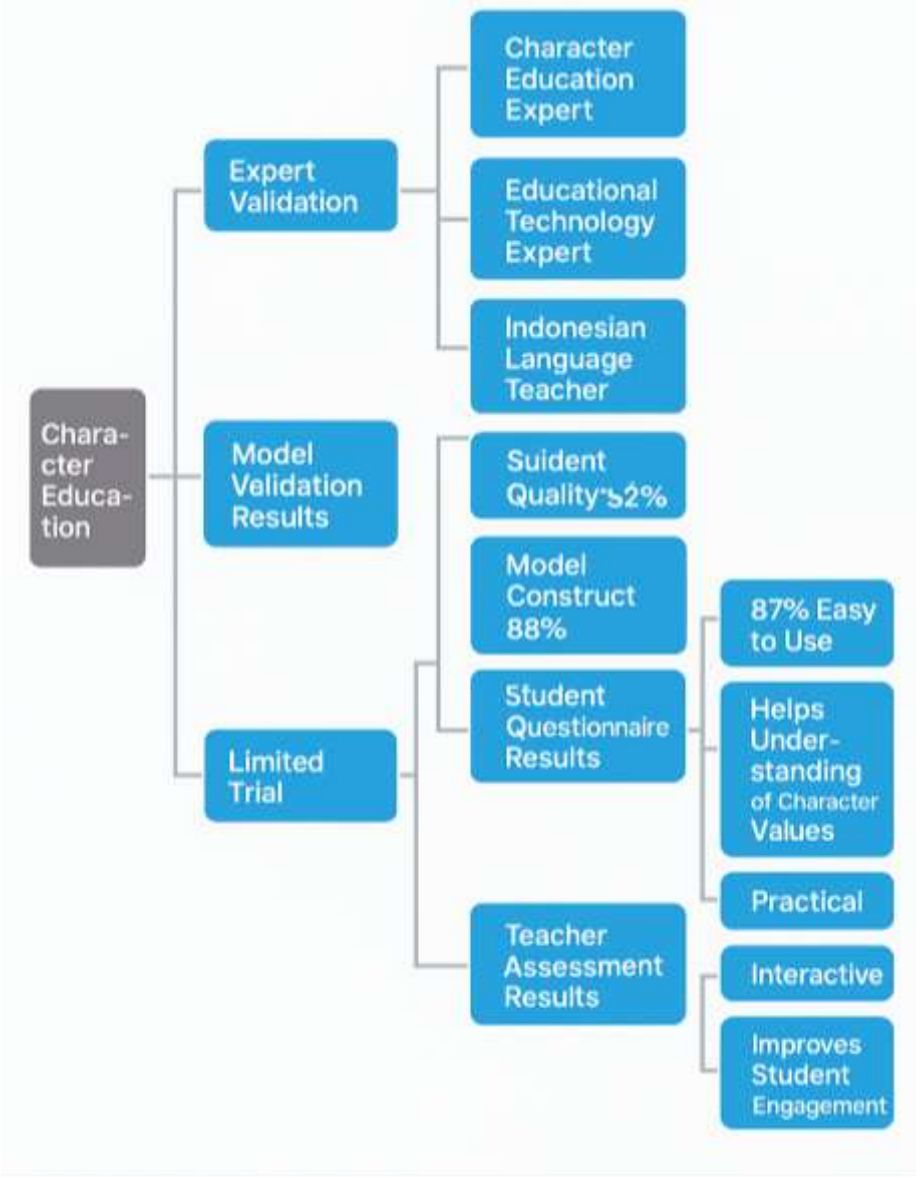

Figure 1. Character Education model Validation Process

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e. Character Education model Validation Process

The validation results show that the quality of the model content obtained an average score of 92%, which is included in the "very valid" category. The model construct obtained an average score of 88%, which is included in the "valid" category, while the technology aspect obtained an average score of 90%, also considered "very valid". This indicates that the developed model has met quality standards in terms of content, construct, and technology utilization.

Furthermore, a limited trial was conducted on 30 eighth grade students at a partner junior high school. Based on the results of the questionnaire given, 87% of students stated that this learning model was easy to use and very helpful for them in understanding and internalizing character values. In addition, teachers who implemented the model considered that this model was very practical, interactive, and able to increase students' active involvement during the learning process.

The research findings show that the application of the deep learning-based affirmation model has a positive influence on Indonesian language learning, especially in terms of strengthening students' character. This model encourages students to understand the material cognitively while internalizing character values through reflective and contextual activities. This is in line with Lickona's (2021) view that effective character education requires active student participation and consistent affirmation. Teachers provide affirmative feedback based on observations and student reflection data. Artificial intelligence technology, especially deep learning, enables learning systems to detect student behavior patterns and provide adaptive feedback in real time beyond the limitations of conventional methods that are common and less contextual.

Based on the perspective of learning theory, this model integrates the principles of constructivism and connectivism. Students construct meaning through active interaction with text, social context, and intelligent and relevant digital feedback. According to Siemens (2020), learning in the digital era is effective if it is based on information networks and data adaptation. This model not only supports the academic dimension but also enriches the social-emotional aspect through educational technology. The implications of this research are significant for the transformation of digital pedagogy. The affirmative deep learning model helps teachers systematically integrate character education into Indonesian language learning without increasing the curriculum burden. This intelligent system allows for more meaningful, relevant, and personal feedback, increases students' sense of appreciation, and forms strong emotional involvement. For the future, this model has the potential to change the paradigm of character education from passive to active, reflective, and data-based.

4. CONCLUSION

This study produces a character building affirmation learning model based on deep learning for learning Indonesian at the junior high school level. This model was developed through the Design and Development Research (DDR) approach with four stages: Define,

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Design, Develop, and Disseminate. The validation results by three experts (character education, educational technology, and Indonesian language teachers) showed a very high level of validity with a content score of 92%, construct 88%, and technology 90%. This model is designed to integrate character values such as responsibility, honesty, cooperation, and empathy through reflective and contextual activities. The main components of the model include character value input, value-based learning activities, and adaptive digital affirmations analyzed through a deep learning system. This technology facilitates the provision of personal feedback based on student interaction data during the learning process.

A limited trial of 30 eighth grade students showed that 87% of students stated that the model was easy to use and helped them understand character values in depth. Teachers said that the model was practical, interactive, and able to increase students' active participation. The deep learning approach allows students to be active in exploring texts and moral values, strengthening character engagement and understanding. With data-based affirmations that are personal and contextual, this model offers an innovative solution in strengthening character education. Overall, the deep learning-based affirmation model has proven to be valid, practical, and effective. This model has the potential to be widely implemented as a technology-based pedagogical instrument that supports sustainable character formation.

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