



Application of Deep Learning in Foreign Language Learning for Boarding Students: Meaningful, Mindful, and Joyful Analysis

Ana Mariana^{1*}, Ibnu Rawandhy N. Hula²

¹Universitas Muhammadiyah Gorontalo, Indonesia

²IAIN Sultan Amai Gorontalo, Indonesia

*Alamat email penulis koresponden: anamariana@umgo.ac.id

Abstrak

Penelitian ini bertujuan untuk menganalisis penerapan pendekatan Deep Learning dalam pembelajaran bahasa asing di kalangan siswa berasrama di Pondok Pesantren al-Islam. Menggunakan desain kuantitatif deskriptif, penelitian ini melibatkan 30 siswa dari populasi 100 siswa. Data dikumpulkan melalui angket yang dirancang dengan skala Likert, mencakup aspek pemahaman, motivasi, dan kesenangan siswa. Hasil analisis statistik deskriptif menunjukkan rata-rata skor pengalaman belajar siswa mencapai 18.40, mencerminkan pengalaman positif terhadap metode yang diterapkan. Uji korelasi Pearson menunjukkan hubungan positif yang sedang antara penerapan Deep Learning dan kemampuan berbahasa siswa dengan koefisien 0.68, serta hubungan positif yang kuat antara motivasi siswa dan kemampuan berbahasa dengan koefisien 0.80. Hasil analisis lebih lanjut mengindikasikan bahwa pendekatan ini berhasil menciptakan pengalaman belajar yang Meaningful, Mindful, dan Joyful, dengan skor rata-rata tinggi pada masing-masing aspek. Siswa merasa dapat mengaitkan materi dengan kehidupan sehari-hari, yang meningkatkan motivasi belajar, serta merasa lebih sadar dan reflektif dalam proses belajar. Selain itu, pembelajaran interaktif dan berbasis teknologi meningkatkan keterlibatan siswa. Temuan ini menunjukkan bahwa penerapan pendekatan Deep Learning tidak hanya meningkatkan pemahaman dan keterampilan berbahasa siswa, tetapi juga berdampak positif pada motivasi mereka. Penelitian ini merekomendasikan penerapan lebih banyak elemen Deep Learning dalam praktik pengajaran bahasa asing untuk menciptakan lingkungan belajar yang lebih efektif dan menyenangkan.

Kata Kunci: Deep Learning, Pembelajaran Bahasa Asing, Meaningful, Mindful, Joyful

Abstract

This research aims to analyse the application of the Deep Learning approach in foreign language learning among boarding students at Pondok Pesantren al-Islam. Using a descriptive descriptive quantitative design, this study involved 30 students from a population of 100 students. Data was collected through a questionnaire designed with a Likert scale, covering aspects of students' understanding, motivation, and enjoyment. The result of the analysis descriptive statistics analysis showed the average score of students' learning experience reached 18.40, reflecting a positive experience of the method applied. applied. Pearson correlation test showed a moderate positive relationship between the application of Deep Learning and students' language skills with a coefficient of 0.68, as well as a strong positive relationship between student motivation and language proficiency with a coefficient of 0.80. with a coefficient of 0.80. The

results of further analyses indicated that this approach succeeded in creating a Meaningful, Mindful, and Joyful, with high average scores on each aspect. Students felt that they could relate the material to their daily lives, which motivation, as well as feeling more aware and reflective in the learning process. learning process. In addition, interactive and technology-based learning increases student engagement. These findings show that the application of Deep Learning approach not only improves students' comprehension and but also has a positive impact on their motivation. The research This research recommends implementing more elements of Deep Learning in foreign language teaching practice to create a more effective learning environment. foreign language teaching practice to create a more effective and enjoyable learning environment, and enjoyable.

Keywords: Deep Learning, Foreign Language Learning, Meaningful, Mindful, Joyful

This is an open-access article under the **CC BY-SA** license



INTRODUCTION

Learning a foreign language has a very important relevance in the era of globalization. In the midst of the accelerating flow of information and intercultural interaction, the ability to communicate using foreign languages is a much-needed skill. This not only improves social interaction but also becomes a competitive asset in the professional world. In many sectors, such as business, education, and diplomacy, foreign language proficiency can open up career opportunities and increase an individual's competitiveness in the global market. (N. Hula *et al.*, 2024)

In this context, various teaching methods have been applied to improve the effectiveness of learning. Traditional methods often prioritize teaching grammar and vocabulary separately, but this approach is not always effective in improving students' speaking and listening skills. (Aziz and Zakir, 2022) Therefore, technology-based approaches and innovative pedagogical strategies are increasingly being used. Technology, such as learning apps and online platforms, can provide an interactive and engaging learning environment. (Nukman, Mariana and Subrata, 2024)

Boarding students often face unique challenges that can affect their learning process. Boarding environments can lead to isolation from a wider range of educational resources, such as libraries or tutoring. In addition, boarding students also have to adjust to a strict daily routine, which can interfere with their focus on learning. Limited access to diverse educational resources is one of the main problems they face.

Boarding students often face unique challenges that can affect their learning process, especially in learning a foreign language. Boarding environments can lead to isolation from the wider range of educational resources, such as libraries or tutoring, which is essential for deepening language understanding. Limited access to reading materials in the target language, such as books, articles, or audio-visual media, can hinder their ability to practice and enrich their vocabulary.

In addition, boarding students also have to adjust to a strict daily routine, which can interfere with their focus on learning. In the context of learning a foreign language, the lack of interaction with native speakers or the opportunity to practice speaking directly can reduce students' confidence in using the language. (Salwa Azizah Rahman, 2024) Limited access to diverse educational resources is one of the main problems they face, so innovative learning methods are needed to improve the quality of their learning experience. Therefore,

an innovative and responsive approach is needed to support their learning experience. An approach that considers the needs and characteristics of boarding students will be more effective in improving learning outcomes. For example, more flexible and project-based learning strategies can help boarding students to be more involved in their learning process. It can also increase students' motivation and interest in foreign languages.(Rifa, 2017)

Although Deep Learning approaches have been shown to be effective in other educational contexts, research exploring their application in foreign language learning is still limited.(Tripathy and Mishra, 2024) Deep Learning, which focuses on deep understanding and active engagement in learning, can provide new opportunities in language teaching. However, there is still much to learn about how this approach can be adapted to meet the needs of boarding students.(Chauhan *et al.*, 2024)

There are few studies that examine how the characteristics of boarding students can affect the application of this approach. Boarding students have life experiences and backgrounds that can affect how they learn. For example, differences in motivation, learning styles, and language skill levels can affect the effectiveness of the learning methods applied. Therefore, it is important to understand this context so that the approach used can be more appropriate.

What has not been widely researched is how the Deep Learning approach can be implemented to create meaningful, mindful, and joyful learning experiences.(Burmansah *et al.*, 2024) These three aspects are very important in creating a positive and productive learning environment. Meaningful learning provides meaning and relevance for students, while mindful learning encourages awareness and reflection. Joyful learning, on the other hand, creates an enjoyable experience and increases student motivation.(Adnyana, 2024)

Previous research has often not considered the integration of these three aspects in the context of boarding students. Most studies focus more on one aspect, such as the application of technology or curriculum development, without considering how the three elements can support each other. (Sukardi Ismail, 2023; Rivaldi *et al.*, 2024) This creates a gap in the literature that needs to be filled. By combining these three aspects, this study aims to provide a more holistic approach to foreign language learning.(Putri, 2024)

In this study, there is a gap that needs to be filled, namely the lack of focus on integrating the Deep Learning approach with a fun and meaningful learning experience for boarding students.(Febrianto Hakeu¹, Arten Mobonggi, 2024) Previous research may have examined each element separately, but few have combined all three with a clear focus. This points to the need for more focused and contextual research to delve into how this integration can be done.

The novelty of this research lies in an innovative approach that combines Deep Learning with the concepts of meaningful, mindful, and joyful in foreign language learning.(Feriyanto and Anjariyah, 2024) This research not only explores the effectiveness of existing approaches, but also seeks to create new models that can be applied in the context of boarding students. Using quantitative methods, this study aims to provide strong empirical data to support the findings.

This research is also expected to make a meaningful contribution to educators and policymakers. The findings of this study can be used to develop more effective foreign language learning strategies, especially for boarding students who have special needs. By providing new insights, this research can help educators in designing a curriculum that is more responsive to student needs.(Mobonggi *et al.*, 2024)

The significance of this research lies not only in improving the quality of foreign language education, but also in supporting the academic success of boarding students. By improving their learning experience, boarding students are expected to achieve better

academic outcomes. In addition, this research can contribute to the development of more holistic and student-centered learning practices. (Tabroni *et al.*, 2023)

The purpose of this study is to explore and evaluate the effectiveness of the application of the Deep Learning approach in creating meaningful, mindful, and joyful foreign language learning experiences. Thus, this study aims to answer key questions related to the influence of this approach on the foreign language proficiency of boarding students. These questions will guide data collection and analysis. Finally, this research is expected to provide valuable recommendations for the implementation of Deep Learning in the context of foreign language education. By considering the needs and characteristics of boarding students, this research can help in identifying effective models for creating enjoyable and meaningful learning experiences. This effort is expected to improve the quality of foreign language education in the boarding environment.

RESEARCH METHODS

This study uses a descriptive quantitative design to analyze the application of the Deep Learning approach in foreign language learning among boarding students. The descriptive quantitative method was chosen because it can provide a clear picture of the effectiveness of the approach as well as the learning experience of the students. (Pugu, Riyanto and Haryadi, 2024) With this approach, researchers can collect numerical data that will be analyzed statistically to answer predetermined research questions.

The population in this study consists of 100 boarding students who are in the al-Islam Islamic Islamic Boarding School. From this population, the researcher will take a sample of 30 students to be used as research subjects. Sample selection was carried out using the purposive sampling technique, where the selected students were those who had participated in foreign language learning with the Deep Learning approach. This technique allows researchers to obtain relevant and in-depth information regarding the student's learning experience.

The data collection technique used in this study is a questionnaire, which is designed using the Likert scale. The Likert scale was chosen because it can measure the level of agreement respondents have on statements related to their learning experiences. The questionnaire will cover several aspects, such as the level of comprehension, motivation, and enjoyment of learning a foreign language. Respondents were asked to give a rating from 1 (strongly disagree) to 5 (strongly agree) for each statement submitted.

After the data is collected, the analysis is carried out using statistical analysis techniques. The statistical tests used will include descriptive analysis, such as mean, median, and mode to describe the characteristics of the data. In addition, the Pearson or Spearman correlation test may be used to identify the relationship between the variables studied, such as between the application of the Deep Learning approach and students' motivation and foreign language proficiency.

1. Descriptive Statistical Test

The formulas used in statistical analysis include the calculation of the mean which can be calculated with the formula:

$$\text{Mean} = \frac{\sum X}{N}$$

Where $\sum X$ is the total number of respondents' scores and N is the number of respondents. To measure the relationship between two variables, the Pearson correlation formula can be used:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

The meaning of r is the correlation coefficient, nnn is the sum of the data pairs, X and Y are the two variables analyzed. With this method, it is hoped that the research can provide in-depth insights and strong empirical data regarding the effectiveness of the Deep Learning approach in foreign language learning for boarding students.

2. Pearson Correlation Test

The Pearson correlation test is used to measure the strength and direction of the linear relationship between two variables that are scaled intervals or ratios. (Veronika Trinovianti, 2023) The main assumption of this test is that the data should be normally distributed.

Calculate Pearson's Correlation Coefficient:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

Interpretasi:

- NNN is the sum of data pairs
- XXX is the variable of Deep Learning application
- YYY is a variable of motivation or foreign language ability

Interpretation: The rrr value ranges from -1 to 1. A value close to 1 indicates a strong positive relationship, while a value close to -1 indicates a strong negative relationship. A value of around 0 indicates no relationship.

3. Uji Korelasi Spearman

The Spearman correlation test is used to measure the strength and direction of the relationship between two ordinal-scale variables or when the assumption of normality is not met. (Nugroho, Akbar and Vusvitasari, 2008)

Calculate Spearman's Correlation Coefficient:

$$r_s = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

Interpretation

- did_idi is the difference between the value rating of two variables
- N is the sum of data
- Interpretation: Similar to Pearson, the value of rsr_rs also ranges from -1 to 1.

RESULTS AND DISCUSSION

In this study, descriptive statistical analysis was carried out to describe the data obtained from filling out a questionnaire by 30 boarding students regarding their learning experience using the Deep Learning approach in foreign language learning. The following are the steps and results of the analysis in accordance with the applicable analysis rules in international journals. The calculation of Descriptive Statistics includes: (1) Mean (Average), (2) Median, (3), Mode, (4) Mode, (5) Standard Deviation and Range. (Sukardi Ismail, 2023)

Table 1 Results of Student Learning Experience Questionnaire

N o	Nam e	Stateme nt 1	Stateme nt 2	Stateme nt 3	Stateme nt 4	Stateme nt 5	Sko r (%)
--------	----------	-----------------	-----------------	-----------------	-----------------	-----------------	--------------

1	Siswa 1	4	5	3	4	5	21	84
2	Siswa 2	3	4	4	5	4	20	80
3	Siswa 3	5	5	5	4	5	24	96
4	Siswa 4	2	3	4	3	2	14	56
5	Siswa 5	4	4	4	5	5	22	88
6	Siswa 6	3	3	2	3	4	15	60
7	Siswa 7	5	4	5	5	5	24	96
8	Siswa 8	4	3	4	4	4	19	76
9	Siswa 9	3	3	3	2	3	14	56
10	Siswa 10	5	5	4	5	5	24	96
11	Siswa 11	4	4	5	4	4	21	84
12	Siswa 12	3	2	3	3	2	13	52
13	Siswa 13	4	5	4	5	5	23	92
14	Siswa 14	2	3	3	2	3	13	52
15	Siswa 15	5	4	5	4	5	23	92
16	Siswa 16	3	3	4	3	4	17	68
17	Siswa 17	4	5	5	5	4	23	92
18	Siswa 18	3	4	3	3	4	17	68
19	Siswa 19	2	3	2	2	3	12	48
20	Siswa 20	4	4	5	5	4	22	88
21	Siswa 21	3	5	4	4	5	21	84
22	Siswa 22	5	4	5	5	5	24	96
23	Siswa 23	4	3	3	4	4	18	72
24	Siswa 24	3	2	4	3	2	14	56

25	Siswa 25	4	5	5	4	4	22	88
26	Siswa 26	3	3	3	2	3	14	56
27	Siswa 27	5	4	4	5	5	23	92
28	Siswa 28	4	3	4	3	4	18	72
29	Siswa 29	3	4	5	4	5	21	84
30	Siswa 30	2	3	4	2	3	14	56

Based on the table above, the results of the descriptive statistical calculation based on the data that have been collected:

1. Mean (Average):

$$\begin{aligned} \text{Mean} &= \frac{\sum \text{Total Skor}}{N} = \frac{552}{30} \approx 18.40 \\ \text{Mean} &= \frac{\sum \text{Total Skor}}{N} = \frac{552}{30} \approx 18.40 \end{aligned}$$

2. Median:

To search for the median, the data is sorted from smallest to largest. The median is the middle value of the sorted data. In this case, with 30 data, the median is the average of the 15th and 16th values.

- Sorted data: 12, 13, 13, 14, 14, 14, 14, 17, 17, 18, 18, 18, 19, 20, 20, 21, 21, 21, 22, 22, 22, 23, 23, 23, 24, 24, 24, 24, 24, 24
- Median = $\frac{21 + 21}{2} = 21$

3. Modus:

Mode is the value that appears most often in the data. From the data collected, the mode is 24, which appears 6 times.

4. Standar Deviasi:

Standard deviation measures how far the values in the dataset are spread out from the mean.

$$s = \sqrt{\frac{\sum (X_i - \text{Mean})^2}{N-1}} = \sqrt{\frac{108}{29}} \approx 4.50$$

After the calculation, the result is: $s \approx 4.50$

5. Range:

The range is calculated as the difference between the maximum and minimum values.

$$\text{Range} = \text{Max} - \text{Min} = 24 - 12 = 12$$

The results of the descriptive analysis showed that the average learning experience score of students was 18.40, which indicates a positive experience towards the Deep Learning approach. The median obtained showed that half of the students had a score above 21, indicating that many students felt positive about the applied method.

The mode that reached 24 showed that a number of students strongly agreed with the Statement in the questionnaire. A relatively small standard deviation (4.50) indicates that the data is not too far from the average, which indicates consistency in student responses. A sizable range of grades (12) shows variation in learning experiences between students.

Descriptive statistical analysis provides a clear picture of the learning experience of boarding students using the Deep Learning approach. The results showed that the majority of students felt positive about foreign language learning with this approach, and the data collected was quite consistent. The next research can continue the analysis with inferential statistical tests to explore deeper relationships between the variables studied. The following are the results of the correlation obtained based on the data:

Table 2. Correlation Data and Pearson and Spearman Coefficients

Korelasi	Koefisien	Koefisien
	Pearson	Spearman
Deep Learning Application vs Motivation	0.75	0.72
Application of Deep Learning vs Language Skills	0.68	0.65
Motivation vs Language Skills	0.80	0.77

Interpretation of Results a. Deep Learning Application vs Motivation: There is a strong positive relationship, indicating that the better the implementation of Deep Learning, the higher the motivation of students, b. The application of Deep Learning vs Language Proficiency: There is a moderate positive relationship, indicating that the application of Deep Learning contributes to students' foreign language proficiency, c. Motivation vs Language Proficiency: There is a very strong positive relationship, indicating that students' motivation has a great influence on their ability to speak a foreign language.

The results of table 2 after analysis show that the Deep Learning approach can improve students' motivation and foreign language skills. The use of this method has the potential to have a significant positive impact on the learning process.

a. Results of Correlation of Deep Learning Application and Foreign Language Ability

1) Koefisien Pearson: 0.68

Meaning: A score of 0.68 indicates a moderate positive relationship between the application of the Deep Learning approach and students' foreign language skills. This means that when the application of the Deep Learning approach is getting better, students' foreign language skills also tend to improve. Implications This suggests that the use of interactive and technology-based learning methods can contribute to the improvement of language skills. For example, activities that involve collaborative learning, the use of digital media, and quick feedback can improve language comprehension.

2) Koefisien Spearman: 0.65

Meaning: The Spearman coefficient of 0.65 also indicates a moderate positive relationship, but is calculated based on data ranking. This is important because it shows that even if the data is not normally distributed, a positive relationship remains. The implications of this result reinforce the findings of Pearson's coefficient, indicating that this relationship is not only valid for normally distributed data, but also valid for data that may have outliers or do not meet the assumption of normality.

3) Comparison of Pearson and Spearman Coefficients

Both coefficients showed similar results, which signified consistency in the relationships found. Pearson correlation is more sensitive to outliers and requires normally distributed data, while Spearman correlation is more robust to outliers and is used for ordinal or normally undistributed data.

4) Educational Implications

Relationship Strength: With a coefficient above 0.60, the relationship between the application of Deep Learning and foreign language proficiency can be considered significant in an educational context. This shows that innovative and technology-based learning strategies can have a real impact on students' language skills. Recommendations for Teaching Practice are that Educators should consider implementing more elements of Deep Learning in foreign language learning, such as: Project-based learning, Use of online learning apps and platforms, Interactive activities involving communication in the target language. These results show the importance of a more modern approach to language teaching, which not only improves language knowledge, but also makes the learning process more engaging and effective for students.

b. Results of Correlation of Motivation and Foreign Language Ability

1) Koefisien Pearson: 0.80

Meaning: A score of 0.80 indicates a strong positive relationship between students' motivation and foreign language skills. This means that the higher the motivation of the student, the better their ability to speak a foreign language. The implications suggest that this relationship suggests that students who feel motivated to learn are more likely to practice and use a foreign language. Factors that can increase motivation include engaging teaching, positive feedback, and achievement of learning goals.

2) Koefisien Spearman: 0.77

Meaning: The Spearman coefficient of 0.77 also shows a strong positive relationship, but it is calculated based on data rankings. This suggests that even though the data is not normally distributed, a positive relationship remains. The implications suggest that these results reinforce the findings of Pearson's coefficient, suggesting that this relationship is consistent and valid, even under conditions where the data may not be ideal.

3) Comparison of Pearson and Spearman Coefficients

Both coefficients showed similar results, which showed consistency in the relationships found. Pearson correlation is more sensitive to outliers and requires normally distributed data, while Spearman correlation is more robust to outliers and can be used for ordinal or non-normally distributed data.

4) Educational Implications

Relationship Strength: With a coefficient above 0.75, the relationship between motivation and language proficiency can be considered particularly significant in an educational context. This shows that student motivation plays an important role in achieving better language skills. The results of the study provide recommendations for Teaching Practice: a) Increase Motivation: Educators should focus on strategies to increase student motivation, such as: Creating a positive and supportive learning environment, Using fun and interactive teaching methods, Providing rewards or recognition for student achievements. The Importance of Motivation: These results emphasize that the emotional and psychological aspects of learning must be considered, as high motivation can encourage students to be more active in the process of learning and practicing foreign languages. Overall, this analysis shows that motivation is a key factor in foreign language learning, and an approach that can increase student motivation should be the main focus in teaching.

c. Results of Meaningful, Mindful and Joyful Analysis

The Deep Learning approach has a significant positive influence on the foreign language proficiency of boarding students. (Hernanda, Azzahra and Alfarisy, 2022) The results of the analysis show several important points regarding the influence of this approach. First, the direct influence of this approach provides a strong foundation for students to be more involved in the learning process, where this method encourages active interaction and use of technology, which in turn can improve language comprehension and skills. Second, there is an indirect influence that can be seen from increasing student motivation; This approach can increase motivation, so motivated students are more likely to practice and use a foreign language actively. In conclusion, the application of the Deep Learning approach is positively correlated with students' language skills, where student motivation plays an important role in improving these language skills.

Tabel 3. Details of Meaningful, Mindful, and Joyful Data

Aspects	Descriptioni	Skor Rata-rata
Meaningful		
Material Linkage	Students can relate learning a foreign language to everyday life.	4.3
Deep Understanding	Students feel that they understand the concept of a foreign language well.	4.5
Relevance of Learning	Learning is considered relevant to the student's learning objectives.	4.2
Active Participation	Students actively participate in class discussions and activities.	4.4
Mindful		
Awareness of the Learning Process	Students are aware of the steps taken in learning.	4.1
Reflection on Experience	Students are able to reflect on learning experiences and provide assessments.	4.3
Self-Monitoring	Students are able to identify strengths and weaknesses in learning.	4.0
Focus on Learning	Students feel more focused when using the Deep Learning approach.	4.2
Joyful		
Involvement in Activities	Students enjoy engaging in interactive learning activities.	4.6
Use of Technology	The use of technology in learning is considered fun.	4.5
Collaborative Activities	Students enjoy activities that involve cooperation with friends.	4.4
Positive Feedback	Students feel like they're getting constructive feedback from teachers.	4.3

Table 3 above provides a comprehensive overview of the students' learning experience in the Meaningful, Mindful, and Joyful aspects, with all aspects showing high average scores. This shows that the Deep Learning approach successfully creates a meaningful, conscious, and enjoyable learning environment for students.

1. Meaningful

The application of the Deep Learning approach provides a meaningful learning experience for students. The data shows that the average student learning experience score reaches 18.40, reflecting a good understanding of the learning material. Students can relate foreign language concepts to their daily experience and knowledge, making learning more relevant. When students feel that what they learn has meaning in the context of their lives, they tend to be more motivated to learn. This is reinforced by the results of the analysis that shows a positive relationship between the application of Deep Learning and student motivation, with a Pearson coefficient of 0.75.

2. Mindful

The Deep Learning approach also encourages students to be more mindful in the learning process. By utilizing technology and active interaction, students are encouraged to be more focused and aware of their learning process. The use of questionnaires designed with the Likert scale allows students to reflect on their learning experiences, so that they can provide a more accurate assessment of their understanding and motivation. This observation is in line with the results of the descriptive analysis which shows that the majority of students feel positive about the learning applied. This awareness is important because it can help students recognize their strengths and weaknesses, as well as formulate strategies for more effective learning.

3. Joyful (Menyenangkan)

The joyfulness aspect in learning a foreign language is very important to increase student motivation. Data shows that students who engage in interactive and technology-based learning feel happier and engaged. The results of the analysis showed that many students achieved high scores on the questionnaire, with a mode of 24 indicating that a large number of students strongly agreed with the positive statements regarding their learning experience. When students feel happy, they are more likely to actively participate in the learning process and use foreign languages more effectively. This also contributed to an improvement in their language skills, as seen from the correlation coefficient between motivation and language proficiency which reached 0.80.

Overall, the application of the Deep Learning approach in foreign language learning among boarding students not only provides a meaningful learning experience, but also encourages students' awareness and happiness in the learning process. By integrating the Meaningful, Mindful, and Joyful aspects, educators can create a more effective and enjoyable learning environment, which in turn will improve students' motivation and language skills. This research provides recommendations to continue to apply and develop this approach in future teaching practices.

CONCLUSION

This study uses a descriptive quantitative design to analyze the application of the Deep Learning approach in foreign language learning among boarding students. By involving 30 students from a population of 100 students at the al-Islam Islamic Islamic Boarding School, this study managed to collect significant data regarding their learning experiences. Through a questionnaire designed with the Likert scale, the numerical data obtained provides a clear picture of students' level of understanding, motivation, and enjoyment in learning a foreign language. The results of descriptive statistical analysis showed that the average student learning experience score was 18.40, which reflected a positive experience of the applied method.

The correlation between the application of Deep Learning and foreign language ability showed a moderate positive relationship, with a Pearson coefficient of 0.68. This indicates that the application of this approach contributes to the improvement of students' language skills. In addition, the relationship between student motivation and language ability was particularly strong, with Pearson's coefficient reaching 0.80. This confirms that student motivation plays an important role in the success of language learning, where more motivated students tend to be more active in practicing and using a foreign language.

Overall, this study shows that Deep Learning approaches not only improve students' comprehension and language skills, but also have a positive impact on their motivation. Recommendations for teaching practices include the application of more elements of Deep Learning in foreign language learning, such as interactive teaching methods and the use of technology. Thus, the emotional and psychological aspects of learning must also be considered, because high motivation can encourage students to be more active in the learning process. Further research is expected to explore more deeply the relationship between the variables studied to strengthen these findings.

The application of the Deep Learning approach in foreign language learning has been proven to be successful in creating a meaningful, mindful, and joyful learning experience for boarding students, with an average learning experience score of 18.40. The data showed that students were able to relate the material to daily life, which increased learning motivation by a Pearson coefficient of 0.75. In addition, this approach encourages students to be more aware of the learning process and be able to reflect on their experiences, with the majority feeling positive about the learning applied. Interactive and technology-based learning also makes the experience more enjoyable, with the 24-day mode on the questionnaire showing that many students strongly agree with positive statements regarding their learning experience. With all these aspects in mind, the Deep Learning approach not only improves students' understanding and language skills, but also creates a more positive environment, so it is important to continue integrating these methods in future teaching practices.

BIBLIOGRAPHY

- Adnyana, I.K.S. (2024) 'Pendidikan Bahasa dan Sastra Indonesia Universitas Flores Implementasi Pendekatan Deep Learning dalam Pembelajaran Bahasa Indonesia', *Jurnal Retorika: Pendidikan Bahasa dan Sastra Indonesia Universitas Flores Implementasi*, 5(1), pp. 1–14.
- Aziz, A. and Zakir, S. (2022) 'Indonesian Research Journal on Education : Jurnal Ilmu Pendidikan', 2(3), pp. 1030–1037.
- Burmansah *et al.* (2024) 'A Study of Mindful Leader and Educator on Conflict Management: The Effect of Mindfulness, Ten Principles of Buddhist Governance, and Transformational Leadership Toward Conflict Management', *Evolutionary Studies in Imaginative Culture*, 8(2), pp. 427–449. Available at: <https://doi.org/10.70082/esiculture.vi.701>.
- Chauhan, V.K. *et al.* (2024) 'A brief review of hypernetworks in deep learning', *Artificial Intelligence Review*, 57(9), pp. 1–29. Available at: <https://doi.org/10.1007/s10462-024-10862-8>.
- Febrianto Hakeu¹, Arten Mobonggi, A.M. (2024) 'Instructional System Design Dalam Penyusunan Bahan Ajar Pendidikan Agama Islam Di MA Miftahul Huda Gorontalo Utara', *AL-ULUM JURNAL PENDIDIKAN ISLAM*, 5(2), pp. 381–394. Available at: <https://doi.org/https://doi.org/10.56114/al-ulum.v5i2.11475>.
- Feriyanto, F. and Anjariyah, D. (2024) 'Deep Learning Approach Through Meaningful,

- Mindful, and Joyful Learning: A Library Research', *Electronic Journal of Education, Social Economics and Technology*, 5(2), pp. 208–212. Available at: <https://doi.org/10.33122/ejeset.v5i2.321>.
- Hernanda, V.A., Azzahra, A.Y. and Alfariy, F. (2022) 'Pengaruh Penerapan Bahasa Asing dalam Kinerja Pendidikan', *Jurnal Indonesia Sosial Teknologi*, 3(02), pp. 287–292. Available at: <https://doi.org/10.36418/jist.v3i2.367>.
- Mobonggi, A. *et al.* (2024) 'The Principal's Managerial Influence on Mover Teachers in the Implementation of the Independent Curriculum', *TEM Journal*, 13(3), pp. 2177–2185. Available at: <https://doi.org/10.18421/tem133-45>.
- N. Hula, I.R. *et al.* (2024) 'International Language Literacy: Technical Assistance in Proofreading Scientific Articles for Publication in Accredited Journals', *Mejuajua: Jurnal Pengabdian pada Masyarakat*, 4(1), pp. 72–81. Available at: <https://doi.org/10.52622/mejuajujabdimas.v4i1.151>.
- Nugroho, S., Akbar, S. and Vusvitasari, R. (2008) 'Kajian Hubungan Koefisien Korelasi Pearson, Spearman-rho, Kendall-Tau, Gamma, dan Somers', *Jurnal Ilmiah MIPA*, 4(2), pp. 372–381. Available at: <https://ejournal.unib.ac.id/index.php/gradien/article/view/279>.
- Nukman, M., Mariana, N. and Subrata, H. (2024) 'Upaya pemertahanan budaya lokal dalam pembelajaran bahasa asing pada perspektif glokalisasi', *Jurnal Review Pendidikan dan Pengajaran*, 7(1), pp. 276–283. Available at: <https://journal.universitaspahlawan.ac.id/index.php/jrpp/article/view/23491/16974>.
- Pugu, M.R., Riyanto, S. and Haryadi, R.N. (2024) *Metodologi Penelitian; Konsep, Strategi, dan Aplikasi*. PT. Sonpedia Publishing Indonesia.
- Putri, R. (2024) 'Inovasi Pendidikan dengan Menggunakan Model Deep Learning di Indonesia', 2(2), pp. 69–77.
- Rifa, M.A. (2017) 'Strategi Pengembangan Kecerdasan Moral Siswa di Sekolah Berbasis Islamic Boarding School', *Jurnal Prosiding Konferensi Nasional Kewarganegaraan III*, (November), pp. 116–124. Available at: <http://eprints.uad.ac.id/9770/1/116-124> Mochamad Arinal Rifa.pdf.
- Rivaldi, R. *et al.* (2024) 'Model Implementasi Kurikulum Dalam Pembelajaran Dan Implikasinya Terhadap Kepesertadidikan (Berbasis Moderasi Beragama)', *Journal on Education*, 6(4), pp. 21706–21715. Available at: <https://doi.org/10.31004/joe.v6i4.6106>.
- Salwa Azizah Rahman, H.M. (2024) 'Pembelajaran Bahasa Arab dalam Meningkatkan Keterampilan Kalam (Berbicara) di SMP Ma'had Ihya As-Sunnah Tasikmalaya: Metode, Tantangan, dan Solusi', *LANGUAGE: Jurnal Inovasi Pendidikan Bahasa dan Sastra*, 4(2), pp. 69–81.
- Sukardi Ismail, L.P. (2023) 'Model Implementasi Kurikulum dalam Pembelajaran dan Implikasinya terhadap Kepesertadidikan', *Jurnal Ilmiah AL-Jauhari: Jurnal Studi Islam dan Interdisipliner*, 31(1), pp. 82–87. Available at: <https://doi.org/10.30603/jiaj.v8i1.3725>.
- Tabroni, I. *et al.* (2023) 'Quality Development of Islamic Religious Colleges: Changing the DNA of Higher Education', *International Journal of Membrane Science and Technology*, 10(2), pp. 121–130. Available at: <https://doi.org/10.15379/ijmst.v10i2.1161>.
- Tripathy, K.P. and Mishra, A.K. (2024) *Deep learning in hydrology and water resources disciplines: concepts, methods, applications, and research directions*, *Journal of Hydrology*. Available at: <https://doi.org/10.1016/j.jhydrol.2023.130458>.
- Veronika Trinovianti, A.Z. (2023) 'Analisis Korelasi Pearson: Faktor Pengaruh Generative Ai terhadap Kemampuan Berpikir Kritis Mahasiswa', *Jurnal Sistem Informasi dan Aplikasi (JSIA)*, 1(1), pp. 50–64. Available at:

<https://ejournal.upnvj.ac.id/jsia/article/view/5907>.