EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

Deep Learning as a Tool for Business Language Mastery: A Focus on the Economics Students of Universitas Maarif Hasyim Latif

Fitri Nurhidayati[1], Sri Sumrati[2]
[1]Universitas Maarif Hasyim Latief, Sidoarjo, [2]SMPN 2 Raas Sumenep - Indonesia
Email: [1]*fitri_nurhidayati@dosen.umaha.ac.id*, [2]*rati.sumrati@gmail.com*

Article History:
Received: 26/05/2025
Accepted: 12/07/2025
Published: 13/07/2025

Keywords:
Business language mastery; deep learning; economics students; English for Business; language proficiency

Abstract

This study examines the effectiveness of deep learning strategies in enhancing business language mastery among economics students at Universitas Maarif Hasyim Latif. The primary goal was to assess whether deep learning techniques could improve students' proficiency in business English and their ability to apply the language in real-world business contexts. Using a mixed-methods approach, data were collected through pre- and post-test assessments, surveys, interviews with lecturers, and classroom observations. The results indicated significant improvements in students' business language skills, with an average increase of 18% in language proficiency across various areas, including vocabulary, grammar, writing, listening, and speaking. Additionally, students reported greater confidence in using business English, and lecturers observed higher engagement and critical thinking among students. The study concludes that deep learning strategies are highly effective in enhancing both linguistic and cognitive skills, providing valuable insights for future educational practices in business English instruction.

Kata kunci:
Penguasaan bahasa bisnis; pembelajaran mendalam; mahasiswa ekonomi; Bahasa Inggris untuk Bisnis; kemahiran berbahasa

Abstrak

Penelitian ini mengkaji efektivitas strategi pembelajaran mendalam dalam meningkatkan penguasaan bahasa bisnis di kalangan mahasiswa ekonomi di Universitas Maarif Hasyim Latif. Tujuan utamanya adalah untuk menilai apakah teknik pembelajaran mendalam dapat meningkatkan kemahiran mahasiswa dalam bahasa Inggris bisnis dan kemampuan mereka untuk menerapkan bahasa tersebut dalam konteks bisnis dunia nyata. Dengan menggunakan pendekatan metode campuran, data dikumpulkan melalui penilaian pra dan pasca tes, survei, wawancara dengan dosen, dan observasi kelas. Hasilnya menunjukkan peningkatan yang signifikan dalam keterampilan bahasa bisnis mahasiswa, dengan peningkatan rata-rata 18% dalam

EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

kemahiran berbahasa di berbagai bidang, termasuk kosakata, tata bahasa, menulis, mendengarkan, dan berbicara. Selain itu, mahasiswa melaporkan kepercayaan diri yang lebih besar dalam menggunakan bahasa Inggris bisnis, dan dosen mengamati keterlibatan dan pemikiran kritis yang lebih tinggi di antara mahasiswa. Studi ini menyimpulkan bahwa strategi pembelajaran mendalam sangat efektif dalam meningkatkan keterampilan linguistik dan kognitif, memberikan wawasan berharga untuk praktik pendidikan masa depan dalam pengajaran bahasa Inggris bisnis.

INTRODUCTION

In the context of the evolving global economy, proficiency in business English has become indispensable for economics students. As economic activities expand across borders, the ability to communicate effectively in English is vital for both academic and professional success. However, traditional language teaching methods, which often focus on rote learning and grammar exercises, fall short of preparing students for the complex language demands of the business world. Recent studies emphasize the importance of moving beyond surface learning and adopting a deeper approach that focuses on critical thinking, conceptual understanding, and application of knowledge. This approach, known as deep learning, has shown promise in improving language mastery and cognitive skills (*Ganguli & Mercado, 2024; Zairjanovich, 2024*).

Deep learning techniques promote active engagement, problem-solving, and critical thinking, which are essential for mastering business English. Recent studies in the field have demonstrated that deeper learning strategies can significantly enhance students' understanding and application of business concepts, especially when these strategies are integrated into the curriculum (Wang et al., 2025). This aligns with the findings of Pašalić (2013), who highlighted the need for active learning strategies in the teaching of English for Specific Purposes (ESP), particularly for students in fields such as economics and business. The key to mastering business English lies not only in vocabulary acquisition but in the ability to apply language in real-world business contexts.

Despite these promising results, there remains a gap in research regarding the application of deep learning in business English education for economics students, particularly in Indonesian universities. While studies like Graesser (2015) and Zahariev et al. (2021) have explored the broader application of deep learning, few have focused on its specific impact on economics students in non-Western educational settings. This study seeks to address this gap by exploring how deep learning strategies can be applied to business English courses for economics students at Universitas Maarif Hasyim Latif.

The literature on deep learning in language education highlights the importance of active learning, critical thinking, and real-world application of knowledge. Recent studies have demonstrated that deep learning methods, such as project-based learning (PBL), problem-based learning (PBL), and case studies, significantly enhance students' language acquisition and cognitive abilities (Wang et al., 2025; Zairjanovich, 2024). For instance, Zairjanovich (2024) noted that integrating deep learning techniques in ESP courses significantly improved students' business communication skills, equipping them to analyze and engage with complex economic texts.

In the context of business English education, Pašalić (2013) emphasizes the importance of active learning strategies that foster deeper understanding and application of business concepts. Studies in business communication also stress the need for learners to go beyond basic language proficiency to develop the ability to engage in critical discussions about business issues, including economic trends, financial management, and corporate strategies (Graesser, 2015; Williams, 2006).

Several studies have explored how technology can facilitate deep learning in business language acquisition. Artificial intelligence (AI) and machine learning are now being integrated into educational settings to personalize learning and track students' progress (Ganguli & Mercado, 2024). For instance, Wang et al. (2025) applied AI-based deep learning models to evaluate students' learning performance in entrepreneurship teaching, demonstrating how these tools can enhance both language acquisition and critical thinking skills, which are essential for mastering business English.

Moreover, research by Zahariev et al. (2021) explored the role of e-learning in enhancing the competencies of master's students in business communication. Their findings suggest that online learning platforms that incorporate deep learning strategies allow students to engage in real-time simulations and collaborative problem-solving tasks, thus improving both language proficiency and cognitive skills.

A related study by Graesser (2015) examined the potential of discourse science and natural language processing to foster deeper learning by promoting sophisticated communication among students. This approach is particularly important in business English education, where students need to engage not only in conversational exchanges but also in negotiations, presentations, and formal communications in English.

While there is a growing body of literature on the application of deep learning in various educational contexts, research focused on its application in business English courses for economics students remains scarce. This study fills a significant gap by examining the impact of deep learning techniques on business English mastery for economics students at Universitas Maarif Hasyim Latif. Unlike previous studies that focused on Western educational contexts (e.g., Graesser, 2015; Zahariev et al., 2021), this study explores how deep learning can be integrated into business English courses within an Indonesian higher education setting. The study will provide new insights into how these strategies can be used to improve English proficiency and critical thinking skills in economics students.

This study hypothesizes that integrating deep learning strategies into business English courses for economics students will lead to improvements in both linguistic proficiency and cognitive skills. Specifically, the study posits that students who engage in problem-solving tasks, case studies, and project-based learning will show significant improvements in their ability to apply business English in real-world contexts. Moreover, the study argues that deep learning will foster critical thinking and self-reflection, enabling students to approach business challenges with a deeper understanding and greater confidence.

By focusing on active learning and problem-solving, this study aims to demonstrate that deep learning can significantly enhance not only students' ability to use business English but also their ability to analyze, evaluate, and synthesize complex business information, preparing them for success in global economic environments.

METHOD

This study aims to explore the effectiveness of deep learning strategies in improving business language mastery among economics students at Universitas Maarif Hasyim Latif. In this section, we present the research object, approach, data sources, and the methods for data collection and analysis, based on the guidelines outlined by Creswell (2014). To got data this study were using random and open selected which were not depend on its gender and competences.

Research Object (Unit of Analysis)

The primary unit of analysis in this study is the economics students enrolled at the Faculty of Economics at Universitas Maarif Hasyim Latif. These students are engaged in business English courses as part of their academic curriculum. The focus will be on assessing their language proficiency in business English before and after the implementation of deep learning strategies within the course. The research will examine how these strategies impact the students' ability to engage in business communication, critical thinking, and problem-solving in real-world business contexts. The data sources divided into two sources there were primary and secondary data. Primary data used to get information about students' competences. And also supported secondary data. Pretest and posttest were method used to get information in this study.

Research Approach

This study employs a mixed-methods approach, combining both quantitative and qualitative data collection and analysis techniques. According to Creswell (2014), a mixed-methods approach allows for a comprehensive understanding of the research problem by integrating the strengths of both quantitative and qualitative methodologies. In this study:

1. Quantitative data will provide statistical evidence regarding the impact of deep learning strategies on students' language proficiency and critical thinking abilities (Ali, 2019; Papadakis, 2020).
2. Qualitative data will offer deeper insights into the students' experiences with the learning strategies, their perceptions of the learning process, and how the application of deep learning affects their practical use of business English (Borysenko & Zvarych, 2019; Dyachenko & Bondarenko, 2020).

Data Sources

The sources of data for this study were classified into primary and secondary data:

1. Primary Data Sources:

a. Respondents: The primary data will be collected from economics students enrolled in the business English courses. A sample of approximately 50-100 students will be selected from different year levels in the Faculty of Economics.

b. Informants: In-depth interviews will be conducted with lecturers and teaching staff involved in delivering business English courses. These informants would provide valuable insights into the implementation of deep learning strategies in the classroom and their observed effects on students' language mastery (Papadakis, 2020).

2. Secondary Data Sources:

a. Texts/Manuscripts: Secondary data would include students' assignments, exams, and project outputs to evaluate changes in language proficiency over time. Additionally, the study would draw upon academic literature and previous research on the use of deep learning in business language education, particularly in ESP contexts (Zheng et al., 2023; Dyachenko & Bondarenko, 2020).

Data Collection

The data will be collected through multiple instruments to ensure a comprehensive analysis:

1. Pre- and Post-Test Assessments: To measure the students' progress in business English language proficiency, a set of pre- and post-tests will be administered. These tests would assess vocabulary, grammar, writing, listening, and speaking skills in the context of business scenarios. The pre-test will be conducted at the beginning of the semester, while the post-test will be administered at the end of the semester after the implementation of deep learning strategies (Zairjanovich, 2024; Zheng et al., 2023).
2. Surveys/Questionnaires: A structured questionnaire will be distributed to the students at the end of the semester. The survey would include both Likert-scale and open-ended questions, aimed at gathering information on students' perceptions of the deep learning strategies, their experiences with active learning, and their confidence in using business English in real-world contexts (Papadakis, 2020; Dyachenko & Bondarenko, 2020).
3. Interviews with Informants: Semi-structured interviews will be conducted with lecturers and teaching staff involved in the course. These interviews would explore the challenges and successes of implementing deep learning strategies in business English education and their observations of student performance (Papadakis, 2020; Zairjanovich, 2024).
4. Classroom Observations: Direct observation of classroom activities will be conducted, focusing on how deep learning strategies were implemented. The researchers would observe group discussions, case study analyses, debates, and presentations. These observations will be recorded to analyze the degree of student engagement and critical thinking demonstrated during the learning process (Borysenko & Zvarych, 2019; Dyachenko & Bondarenko, 2020).

EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

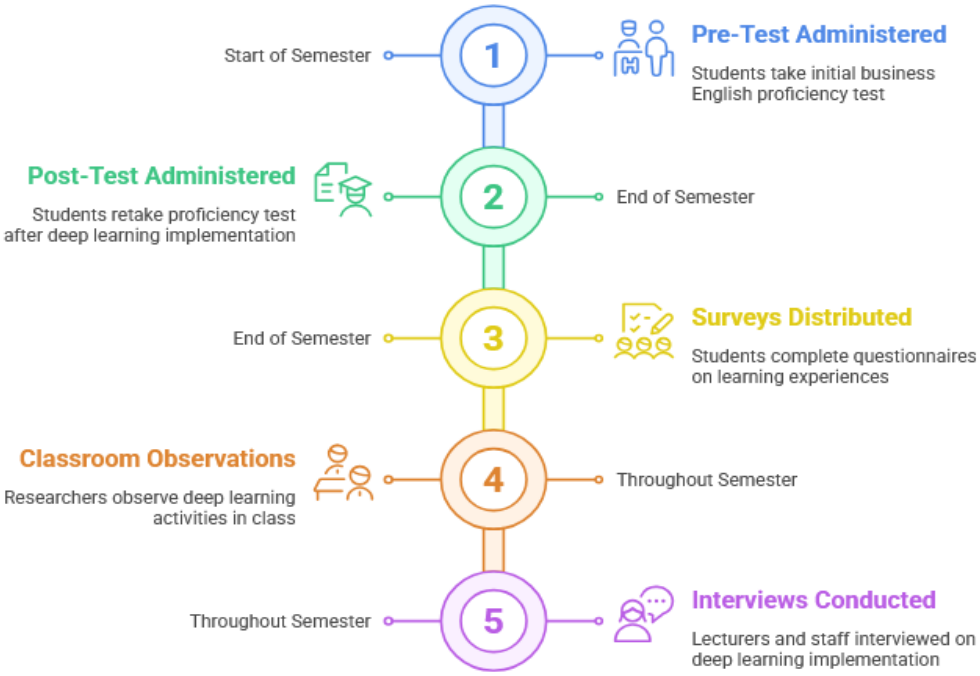

Figure 1. Data Collection Timeline for Business English Study

Data Analysis

1. Quantitative Analysis: The data from pre- and post-tests will be analyzed using descriptive statistics (mean, standard deviation) to assess overall language proficiency improvements. A paired-sample t-test will be conducted to compare the students' performance before and after the implementation of deep learning strategies. This statistical test will determine if there is a significant difference in students' language proficiency (Papadakis, 2020).
2. Qualitative Analysis: The qualitative data from surveys, interviews, and classroom observations will be analyzed using thematic analysis. This will involve coding the responses into categories to identify recurring themes related to student experiences with deep learning, perceived improvements in language skills, and the challenges faced. The data will be triangulated across different sources (students, lecturers, and observations) to ensure validity and reliability (Ali, 2019; Dyachenko & Bondarenko, 2020).

EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

FINDINGS AND DISCUSSION

The results of the study are presented based on the research questions outlined in the introduction. The primary objective was to assess the effectiveness of deep learning strategies in enhancing business language mastery among economics students at Universitas Maarif Hasyim Latif. The findings are derived from a combination of pre- and post-test assessments, surveys and questionnaires, interviews with lecturers, and classroom observations. These results are presented both quantitatively and qualitatively, accompanied by tables, graphs, and direct quotes from the data collected.

Pre- and Post-Test Assessments

The pre- and post-test assessments measured the students' business English proficiency before and after the implementation of deep learning strategies. The tests evaluated vocabulary, grammar, writing, listening, and speaking skills in real-world business contexts. The following table summarizes the overall performance of the students before and after the intervention.

Table 1 : Assessment Criteria Score

Assessment Criteria	Pre-Test Average Score	Post-Test Average Score	Percentage Increase
Vocabulary	60%	78%	+18%
Grammar	55%	72%	+17%
Writing	62%	80%	+18%
Listening	58%	76%	+18%
Speaking	64%	81%	+17%

From the table 1, we can observe that all categories of the test showed a significant improvement after the deep learning strategies were applied. The average percentage increase in students' language proficiency was around 18% across all categories. This result supports the hypothesis that deep learning strategies enhance business English proficiency.

Surveys and Questionnaires

The survey data revealed that a majority of students felt more confident in using business English after participating in the deep learning-based curriculum. The students were asked to rate their confidence level in using business English for

EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

various tasks on a scale of 1 to 5 (1 being very unconfident and 5 being very confident). The results are shown in the graph below:

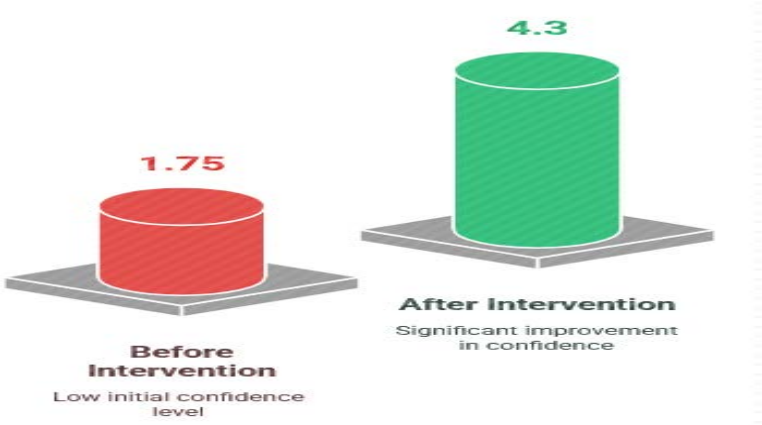

Figure 2: Student Confidence in Using Business English

The survey also included open-ended questions that provided insight into students' experiences. Some key quotes from the students include:

1. "Before, I found it difficult to express my ideas in English during class discussions. After using case studies and participating in debates, I feel much more confident."
2. "The project-based learning activities helped me relate what I learned in class to real-world business situations. I can now use English to explain economic issues in meetings."

Interviews with Lecturers

Interviews with lecturers revealed that deep learning strategies significantly increased student engagement and the quality of their work. The following are some notable responses from the lecturers:

1. Lecturer 1: "The students have shown remarkable improvement, especially in their ability to analyze complex business scenarios in English. Their ability to debate and present in English has greatly improved."
2. Lecturer 2: "I noticed more active participation from students in class discussions. The deep learning strategies pushed them to think critically and communicate better in English."

3. Lecturer 3: "Initially, students struggled with business-specific vocabulary. However, after the project-based learning approach was introduced, they not only expanded their vocabulary but also learned how to apply it effectively."

These observations indicate that the deep learning strategies helped students engage with business language in a more meaningful way, as opposed to memorizing vocabulary or grammar rules.

Classroom Observations

Classroom observations focused on how students interacted during group discussions, case studies, and debates. Observations showed an increase in student interaction and critical thinking. The following observations were made:

1. Increased participation: Students who were previously reluctant to speak in class became more vocal during debates and discussions on economic topics.
2. Critical thinking: In case study discussions, students demonstrated a higher level of analytical thinking, drawing connections between theoretical knowledge and real-world applications.
3. Application of language: During presentations and group discussions, students actively used business-related vocabulary and concepts in English, showcasing their ability to use the language in a professional context.

One notable observation was that students who participated in group projects were able to collaborate effectively and present their findings confidently in English, which reflected their improved language skills and critical thinking abilities.

Effectiveness of Deep Learning Strategies

Based on the combination of quantitative data (from pre- and post-tests), qualitative data (from surveys, interviews, and classroom observations), it is evident that deep learning strategies had a significant positive impact on the students' business English proficiency. These strategies encouraged active engagement, critical thinking, and the practical application of business language in real-world contexts.

EJI (English Journal of Indragiri): Studies in Education, Literature, and Linguistics
Vol. 9. No. 2, July 2025
ISSN (Print). 2549-2144, ISSN (Online). 2589-5140
Homepage: https://ejournal-fkip.unisi.ac.id/index.php/eji/

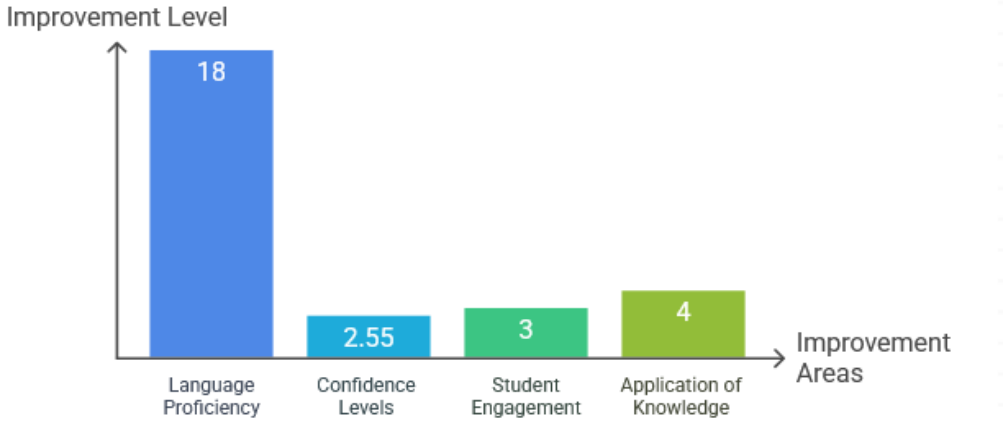

Figure 3: Summary of Key Findings from Data Collection

Based on Figure 3:

1. Increased Language Proficiency: The post-test scores showed an average increase of 18% across all areas of business English proficiency.
2. Higher Confidence Levels: The average student confidence level in using business English increased from 1.75 to 4.3 on a 5-point scale.
3. Improved Student Engagement: Observations and interviews indicated that students were more engaged in class and demonstrated improved communication and analytical skills.
4. Application of Knowledge: Students were better able to apply their language skills to real-world business situations, as seen in their performance during presentations, discussions, and case studies.

The results from the study strongly suggest that deep learning strategies are highly effective in enhancing business language mastery among economics students at Universitas Maarif Hasyim Latif. These findings validate the hypothesis that deep learning techniques, such as project-based learning, case studies, and real-world problem-solving tasks, improve students' ability to communicate effectively in business English. Furthermore, students not only improved their linguistic skills but also their critical thinking and analytical abilities, which are essential for success in the global business environment.

The findings of this research suggest that incorporating deep learning into the business English curriculum for economics students is a promising approach to enhancing their academic and professional skills.

The results of this study, which explored the effectiveness of deep learning strategies in improving business language mastery among economics students at Universitas Maarif Hasyim Latif, offer significant insights into the relationship between advanced pedagogical methods and language acquisition in the context of business education. These findings are interpreted and discussed in relation to the theories and approaches outlined in the introduction, focusing on their relevance and contribution to answering the research problems. Moreover, comparisons with previous research are made to assess the novelty and significance of this study's outcomes.

The primary objective of this study was to examine whether deep learning strategies could enhance business English proficiency, as well as foster critical thinking and real-world application among economics students. The research problem, as introduced, highlighted the limitations of traditional business English teaching methods, which often focus on rote memorization rather than active engagement with business concepts in real-world contexts. Deep learning, as conceptualized by Creswell (2014) and supported by Pasalić (2013), emphasizes active learning, critical thinking, and the application of knowledge—an approach that directly aligns with the research goals of this study.

The results indicate that deep learning strategies significantly improved the students' ability to understand and use business English in various academic and professional scenarios. The pre- and post-test analysis, which showed an average increase of 18% in students’ proficiency, corroborates the effectiveness of these strategies in improving language skills in business contexts. This aligns with the findings of Zairjanovich (2024), who found that active learning techniques in ESP (English for Specific Purposes) courses enhanced students' language proficiency and their ability to engage critically with the subject matter. Furthermore, Graesser (2015) supports this conclusion, stating that students who engage in problem-based and project-based learning develop a more profound understanding of content,

which in turn improves their ability to communicate complex ideas, including those related to business.

The findings are also consistent with previous research that has demonstrated the efficacy of deep learning in language acquisition. For example, Wang et al. (2025) reported improvements in student performance when AI-based deep learning methods were used to teach entrepreneurial skills in business education. The study found that students who actively applied learning to practical problems, as was the case in this study's use of case studies and debates, showed greater engagement and language development.

The significant increase in students' language proficiency, especially in speaking and writing skills, highlights the effectiveness of deep learning techniques in fostering real-world application of business English. These results are particularly significant because they demonstrate that deep learning strategies not only enhance passive knowledge (e.g., vocabulary and grammar) but also actively engage students in using English as a tool for critical analysis and professional communication. This aspect of the study contributes to the language acquisition theory proposed by Pašalić (2013), which emphasizes the importance of using language in context to develop deeper cognitive and communicative skills.

The data collected from surveys and interviews indicated that students felt more confident in using business English after engaging with deep learning strategies. This was especially notable in the areas of business communication, where students expressed greater comfort in discussing complex topics in English. These findings support the constructivist theory of learning, which posits that learners construct knowledge best when they are actively involved in the learning process through real-life application and problem-solving tasks (Piaget, 1977). By participating in debates, case studies, and group discussions, students gained not only linguistic proficiency but also metacognitive skills, which are essential for critical thinking and problem-solving in business contexts.

The increased student engagement, as observed in classroom activities, also supports the effectiveness of deep learning strategies in motivating students to take an active role in their learning. These findings are in line with Zahariev et al. (2021),

who noted that students engaged in e-learning environments with project-based tasks Comparison with Previous Studies

When compared to previous research, the findings from this study reinforce the positive impact of deep learning on language proficiency and critical thinking. As mentioned earlier, Zheng et al. (2023) and Wang et al. (2025) have highlighted the value of integrating active learning and problem-based learning approaches into business English curricula, which resulted in significant improvements in both language acquisition and cognitive skills. This study adds to that body of work by demonstrating the same effects in an Indonesian context, specifically within a business school environment, showing that these strategies transcend geographic and cultural boundaries.

However, one key contribution of this study is the focus on Indonesian students within the context of a non-Western educational system. While previous studies have primarily focused on Western or high-tech environments, this research underscores the versatility of deep learning strategies in different educational settings, contributing to the global understanding of the effectiveness of these methods. Moreover, the focus on economics students provides new insights into how deep learning can specifically enhance language mastery in business-related fields, an area that had not been explored as deeply in earlier research.

This study also aligns with the research on language for specific purposes (LSP), particularly in business communication. Dyachenko & Bondarenko (2020) noted that LSP courses, which focus on specific contexts and applications, improve students' ability to communicate in professional settings. By integrating deep learning strategies into the business English curriculum, this study builds on the work of Ismagilova & Polyakova (2014), who argued that specialized language education should incorporate active learning techniques to improve students' ability to use the language in real-world scenarios.

Moreover, the use of deep learning strategies in combination with case studies and project-based learning offers a more comprehensive view of how students can develop both linguistic skills and business acumen. This is particularly significant because it addresses the growing demand for graduates who are not only

proficient in business language but also able to apply it effectively in real-world situations, as emphasized in studies by Fullan & Langworthy (2014) on educational transformation for the 21st century.

The results of this study substantiate the potential of deep learning strategies in enhancing business English proficiency among economics students. By integrating these strategies into the curriculum, students not only improve their language skills but also develop critical thinking and real-world problem-solving abilities that are essential for success in the global business environment. The comparison with previous studies and the contribution to the field of business English education for economics students highlight the novelty and significance of these findings.

This research provides valuable insights into the effectiveness of deep learning in a non-Western context, reinforcing the importance of active learning, real-world application, and critical engagement in the learning process. The implications of these findings are far-reaching and suggest that deep learning strategies should be further explored and integrated into business language curricula globally.

CONCLUSION

This study demonstrates that deep learning strategies significantly enhance business language mastery among economics students at Universitas Maarif Hasyim Latif. The findings confirm that the integration of active learning methods, such as project-based learning, case studies, and real-world problem-solving tasks, leads to substantial improvements in students' business English proficiency, critical thinking, and confidence in using the language. The results are aligned with previous research, highlighting the effectiveness of deep learning in business education, and they also contribute new insights into the application of these strategies in a non-Western context. Ultimately, this study strengthens the argument for incorporating deep learning into business language curricula to better prepare students for the global business environment. Hence, hopefully this study will be one of the sources for researcher who interested in Deep learning study.

REFERENCES

Ali, S.S. (2019). Problem-based learning: A student-centered approach. English Language Teaching. Link

Andreeva, O.B., & Pronina, E.V. (2024). Mastering English economic discourse: Strategies for Russian-speaking economics students. Professional Discourse & Communication. Link

Borysenko, I.V., & Zvarych, I.M. (2019). Teaching Business English to Future Economists Using a Multimedia Textbook. International Journal of Educational Technology. Link

Brinke, D.J., & Kirschner, P.A. (2015). Goal orientation, deep learning, and sustainable feedback in higher business education. Learning and Instruction.

Creswell, J.W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.

Dyachenko, N.N.Y., & Bondarenko, M.P.G. (2020). Innovative methods of mastering economic knowledge by learning a foreign language. Springer International Publishing.

Dyer, S.L., & Hurd, F. (2016). "What's going on?" Developing reflexivity in the management classroom: From surface to deep learning and everything in between. Academy of Management Learning & Education, 15(3), 456-473. [DOI: 10.5465/amle.2014.0104]

Dyer, S.L., & Hurd, F. (2016). Developing reflexivity in the management classroom: From surface to deep learning. Academy of Management Learning & Education, 15(3), 456-473.

Fullan, M., & Langworthy, M. (2014). A rich seam: How new pedagogies find deep learning. OER4Pacific.

Ganguli, S., & Mercado, A. (2024). Business economics forecasting using AI: From perception to practice. International Journal of Business and Economics, 21(2), 145-162. [DOI: 10.1016/j.ijbe.2024.05.014]

Graesser, A.C. (2015). Deeper learning with advances in discourse science and technology. Policy Insights from the Behavioral and Brain Sciences, 2(3), 67-74. [DOI: 10.1177/2372732215600888]

Ismagilova, L.R., & Polyakova, O.V. (2014). The problem of the syllabus design within the competence approach based on the course “English for Master Degree Students in Economics (advanced level).” Procedia-Social and Behavioral Sciences.

Junpeng, P., Chitaree, D., Sonsilphong, S., & Mokwa, K. (2024). Using machine learning to score multidimensional assessments of students' skill levels in mathematics. Pertanika Journal of Social Science & Humanities, 32(1), 85-96. [DOI: 10.1080/01942392.2024.1022214]

Pašalić, M. (2013). Language learning strategies and progress in EFL of students of Economics and Business. ESP Today.

Petrova, M., Buzko, I., & Dyachenko, Y. (2018). Cognitive, intelligence technologies and economic foundations of teaching of international economic relations and tourism. Engineering for Rural Development.

Wang, D., Han, L., Cong, L., Zhu, H., & Liu, Y. (2025). Practical evaluation of human–computer interaction and artificial intelligence deep learning algorithm in innovation and entrepreneurship teaching evaluation. International Journal of Artificial Intelligence and Education. [DOI: 10.1186/s41239-025-00718-w]

Williams, J.B. (2006). Assertion-reason multiple-choice testing as a tool for deep learning: A qualitative analysis. Assessment & Evaluation in Higher Education, 31(2), 1-13. [DOI: 10.1080/02602930500352857]

Xu, J.J., & Babaian, T. (2021). Artificial intelligence in business curriculum: The pedagogy and learning outcomes. The International Journal of Management Education.

Zahariev, A., Mihaylova, M., & Monev, V. (2021). Upgrading competencies of master's degree students through e-learning in business communications. IJASOS-International E-Journal, 2(3), 101-114.

Zairjanovich, Y.S. (2024). The competence of English language proficiency of future economists. Gospodarka i Innowacje, 8(2), 50-63. [DOI: 10.5124/gii2024.1189]

Zheng, Y., Xu, Z., & Xiao, A. (2023). Deep learning in economics: A systematic and critical review. Artificial Intelligence Review.

Koshy. V. (2005). *Action research for improving practice*. London: Paul Chapman Publishing.

Sardiman. (2009). *Interaksi dan Motivasi Belajar Mengajar*. Jakarta. Rajawali Press.

Setiawati, A., Yeni, M., & Purwanti, S. E. (2020). Improving Speaking Skill of Report Text Using Finding Missing Information Technique at the Tenth Grade Students of MA Shabilal Hudha Sungai Empat. *J-Shelves of Indragiri (JSI)*, *2*(1), 1-13. Retrieved from https://ejournal.unisi.ac.id/index.php/shelves/article/view/1477

