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Exploring English Learning Challenges and Deep Learning's Potential in the Coastal Contexts

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Abstract: Amidst the complexities of English language learning in coastal areas, schools are urged to adapt to the current educational transformation that encourages the implementation of deep learning in educational units. This research is crucial to understand initial conditions and potential adaptations of deep learning approach. The purpose of this study is to explore challenges in English learning and assess schools' readiness to implement deep learning approach in coastal contexts. The method used is a descriptive qualitative study through in-depth interviews with English teachers in two coastal communities in Wakatobi namely, Sampela and Mantigola. The results indicate that low student literacy, minimal family support, limited learning facilities, and local culture such as fishing season are a series of problems in coastal schools. However, there are signs of readiness from teachers and schools to adapt the deep learning approach through the use of more accessible digital media, contextual learning, and involvement in supportive training. In conclusion, deep learning has the potential to increase the relevance and meaningfulness of English language learning in coastal schools. This research has implications for the development of technology-based learning policies and designs that are sensitive to the cultural and geographical conditions in coastal areas.

Keywords: English Learning, Deep Learning Approach, Coastal Contexts.

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A. INTRODUCTION

English language learning in coastal schools encounters multifaceted challenges. Earlier researches have highlighted that students in remote coastal contexts often experience barriers ranging from limited learning facilities and strong socio-cultural influences (Poedjiastutie, 2021). These issues include inadequate learning resources which limit the quality of classroom instruction, lack of exposure to English in their immediate environment which limit opportunities to develop language proficiency, particularly vocabulary acquisition, and the maritime lifestyle, in which children are frequently involved in household economic activities, often leads to irregular school attendance (Widyahening & Rahayu, 2021). These conditions create unavoidable challenges that significantly affect both the learning process and English achievement in coastal schools (Suryana, 2020).

Amidst these various challenges, coastal schools are faced with the demands of being able to adapt to the transformation of national education. Recently, the Ministry of Education promotes the integration of deep learning as a pedagogic approach. Unlike the concept of deep learning in the context of artificial intelligence, this approach draws on a learning model developed by experts such as Michael Fullan (2018). This approach emphasizes active student engagement, real-world problem-solving, and connections between learning content and everyday life, while creating a positive and motivating learning environment (Fullan, 2018). This approach focuses on developing deep understanding through the integration of three main components, mindful learning, meaningful learning, and joyful learning (Feriyanto & Anjariyah, 2024). Mindful learning highlights awareness and active engagement in understanding concepts. Meaningful learning stresses the relevance of materials to students' real-life contexts, thereby improving retention and applicability. Joyful learning, meanwhile, ensures that the process is enjoyable and motivating, which is particularly important to sustain students' interest in coastal areas where school engagement is often disrupted (Feriyanto & Anjariyah, 2024).

Although the concept of deep learning has been widely discussed in educational literature, little is known about how schools in coastal settings are prepared to adopt this approach. This study is therefore important to provide an understanding of the initial conditions and the potential for adapting deep learning in coastal schools. Therefore, this study aims to explore the challenges of English learning in coastal contexts and to examine the readiness of schools to adopt deep learning as a more contextual, meaningful, and sustainable instructional approach. The findings are expected to contribute to policy development, instructional design, and teacher professional development that are sensitive to the cultural and geographical realities of coastal education.

B. METHOD

This study employed a descriptive qualitative research to explore the challenges of English language learning and the readiness of coastal schools in adopting deep learning. Descriptive qualitative research involves the description, interpretation of situations, and conditions used to explain in research reports (Hancock, 2006). A qualitative approach was selected because it allows for in-depth understanding of contextual and cultural factors that influence the learning process.

1. Research Sites and Participants

The research was conducted in July- August 2025 took place in three coastal schools in Kaledupa, Southeast Sulawesi, namely SMP Negeri Satap Mantigola, SMP Negeri Satap Bajo Sampela, and MTSS Mantigola. The participants comprised English teachers and students from the participating coastal schools. Total of three English teachers directly involved in classroom instruction and familiar with the realities of coastal education were selected. In addition, five students from each school were purposively chosen to represent diverse characteristics (e.g., gender, grade level, attendance patterns, and academic performance).

2. Data Collection

Data were collected through observation and semi structured interviews. The interview instruments developed from two frameworks. Ecological Systems Theory Framework (Bronfenbrenner, 1979) was used to collect data related to challenges of English learning, while Technology Readiness Index (Parasuraman, 2015) used to collect data related to readiness to adopt the deep learning approach. Each interview lasted approximately 45- 60 minutes and was conducted in Indonesian to ensure clarity and comfort for participants.

Table 1. Interview Guide Based on EST and TRI Frameworks

Framework	Component	Description	Sample Question
Ecological Systems Theory (Bronfenbrenner, 1979)	Microsystem	Direct environment: students' literacy, classroom learning, family support.	"What challenges do your students face in learning English vocabulary in class?"
	Mesosystem	Interaction between home, school, and community.	"How do parents collaborate with teachers to support students' English learning?"
	Exosystem	External factors indirectly influencing students (parents' work, facilities, policies).	"How does parents' fishing activity or school infrastructure affect students' attendance and learning?"
	Macrosystem	Broader cultural values and norms affecting education.	"In what ways does local maritime culture influence students' attitudes toward schooling and English learning?"
	Chronosystem	Influence of time and educational changes.	"How do seasonal absences or curriculum reforms affect the continuity of English learning?"
Technology Readiness Index (Parasuraman, 2015)	Optimism	Positive expectations about deep learning approach benefits (mindful, meaningful, joyful).	"Do you believe deep learning can improve students' English learning in a more meaningful and joyful way?"
	Innovativeness	Willingness to try new pedagogical strategies and tools.	"Have you tried integrating new methods or digital tools to make learning more student-centered?"
	Discomfort	Feelings of difficulty in applying new	"What challenges do you face when implementing

Framework	Component	Description	Sample Question
		approaches or technologies.	deep learning activities in class?"
	Insecurity	Concerns about sustainability and effectiveness of the approach.	"Do you feel confident that students can adapt consistently to deep learning practices?"

3. Data Analysis

The collected data were transcribed and analyzed using thematic analysis. The transcripts were coded to identify recurring themes related to English learning challenges, readiness indicators, and potential benefits of deep learning. To enhance trustworthiness, data triangulation was carried out by comparing findings across the two schools. Member checking was also conducted by sharing summaries with the participants to validate the accuracy of interpretations.

C. RESULTS AND DISCUSSION

1. Results

Interviews with English teachers and students revealed multi-layered challenges in coastal schools. At the microsystem level, many students in both Sampela and Mantigola still struggle with basic literacy, such as recognizing letters or retaining vocabulary after repeated practice. Their inconsistent attendance further reduces engagement, while limited parental support at home weakens students' motivation.

Moving to the mesosystem, weak collaboration between parents and schools was reported, with teachers noting that parental involvement in supporting English learning is minimal and cultural activities often take precedence over formal schooling. At the exosystem level, parents' economic activities, particularly fishing, strongly influence students' attendance, as children are frequently absent during fishing seasons. Limited school infrastructure, including unstable electricity and inadequate classrooms, also hinders the learning process.

The macrosystem reflects the broader maritime culture that shapes educational practices, where children are expected to contribute to family livelihoods. Low parental education levels contribute to reduced prioritization of formal learning, while social events such as community celebrations cause additional absenteeism. Finally, the chronosystem highlights how seasonal fishing patterns create discontinuity in learning, particularly in vocabulary acquisition that requires consistent practice. Teachers also emphasized the role of recent curriculum reforms promoting deep learning, which they perceive as both a challenge and an opportunity.

In terms of readiness to adopt the deep learning approach, the interviews with teachers provided important insights into their perspectives on mindful, meaningful, and joyful learning. Optimism was evident across schools, as teachers generally believed that deep learning, supported by contextualized and interactive methods, could enhance student engagement and make English learning more relevant to their daily lives. Regarding innovativeness, some teachers had begun experimenting with digital media such as interactive slide presentation, videos, and online quizzes, dictionaries, as well as contextual strategies that

link English vocabulary to local maritime life. SMPN Satap Mantigola, in particular, demonstrated stronger initiative in this area.

However, significant discomfort was also reported, with teachers expressing concerns about limited infrastructure, unstable electricity, and insufficient training to implement deep learning effectively; these issues were more pronounced in Sampela and MTSS Mantigola. Finally, insecurity remained an obstacle, as some teachers expressed doubts about the sustainability of deep learning practices, particularly given irregular student attendance and uncertainty about students' ability to adapt consistently.

The findings reveal that readiness for deep learning adoption is uneven across the three schools. While Mantigola shows higher readiness in optimism and innovativeness, both Sampela and MTSS Mantigola demonstrate stronger barriers in discomfort and insecurity. However, across all schools, there is a shared recognition of the need for more contextualized, engaging, and sustainable English learning practices.

2. Discussion

The findings of this study, analyzed through the Ecological Systems Theory (EST), indicate that challenges in English learning among coastal students are shaped by complex and interrelated factors. At the microsystem level, students' limited literacy and lack of family support align with prior research highlighting the double burden of mastering both basic literacy and foreign language acquisition in marginalized areas (Rahmawati & Rasyid, 2020). The mesosystem challenges, such as weak parent–school collaboration and low parental involvement, reflect broader patterns observed in rural education where family priorities often lean toward economic survival rather than academic achievement (Hadiyanto & Simanjuntak, 2018). Exosystem and macrosystem influences, including parents' fishing activities, limited infrastructure, and strong maritime culture, further exacerbate irregular attendance and hinder continuous language development. These findings support Poedjiastutie (2021), who emphasized that sociocultural and structural barriers are critical determinants of learning inequities in coastal and rural contexts. The chronosystem dimension further illustrates how seasonal fishing patterns disrupt learning continuity, while the introduction of curriculum reforms promoting deep learning represents a new contextual shift that schools must navigate.

In terms of readiness for adopting the deep learning approach, insights from the adapted Technology Readiness Index (TRI) reveal both opportunities and barriers. Teachers' optimism and emerging innovativeness demonstrate their willingness to enhance English learning through contextualized, student-centered strategies. This reflects alignment with the Ministry of Education's policy on mindful, meaningful, and joyful learning, which emphasizes deeper engagement and relevance (Feriyanto & Anjariyah, 2024). However, discomfort and insecurity remain strong in schools like Sampela and MTSS Mantigola, where infrastructural limitations and inconsistent attendance challenge the sustainability of deep learning practices. These findings echo Suryana's (2020) observation that children's involvement in economic activities directly undermines academic outcomes, and they highlight the importance of strengthening teacher training and infrastructural support to ensure effective implementation.

Taken together, the dual analysis using EST and TRI demonstrates that successful adoption of deep learning in coastal schools requires not only technological readiness but also

sensitivity to the ecological contexts in which students and teachers operate. Addressing microsystem challenges such as literacy gaps and parental support, while simultaneously reducing exosystem and macrosystem barriers, will be crucial for ensuring that deep learning practices become sustainable and culturally relevant in coastal education.

D. CONCLUSIONS AND SUGGESTIONS

English learning in coastal schools is challenged by low literacy, weak parental support, irregular attendance, and cultural-economic factors such as fishing and community festivities. Despite these barriers, teachers—especially in SMPN Satap Mantigola—show optimism and innovativeness to adopt deep learning, though discomfort and insecurity remain in other schools. It is suggested to strengthen teacher training in deep learning pedagogy, improve infrastructure and digital access, and enhance parental and community involvement to support sustainable and contextualized English learning.

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