

BEYOND GENERAL ENGLISH: RECONSTRUCTING ESP CURRICULUM IN HEALTH SCIENCES THROUGH NEEDS ANALYSIS AND MALAY RIAU CULTURE-BASED E-MODULE DEVELOPMENT

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ABSTRACT

Despite the growing emphasis on English for Specific Purposes (ESP) in health sciences education, many institutional curricula remain inadequately aligned with the communicative demands of professional healthcare contexts. Existing ESP practices tend to prioritize general English proficiency, marginalizing discipline-specific discourse and overlooking the role of local cultural frameworks in shaping pragmatic competence. This study critically examines the current ESP curriculum and establishes an empirical foundation for the development of a culturally embedded e-module grounded in Malay Riau values to enhance speaking and reading skills. Adopting a qualitative design, this study integrates systematic document analysis with multi-stakeholder perspectives obtained from lecturers, undergraduate health students, and healthcare practitioners. Thematic analysis was conducted to interrogate three core dimensions: linguistic specificity, professional authenticity, and cultural embeddedness. The findings expose a structural misalignment between curriculum content and workplace communication needs, reflected in the underrepresentation of clinical speaking tasks, limited engagement with authentic medical texts and the absence of culturally situated communication norms. This gap constrains students' ability to perform effectively in context-sensitive healthcare interactions. Responding to these limitations, the study proposes a theoretically grounded and needs-driven ESP framework operationalized through a digital e-module that integrates professional discourse with Malay Riau cultural principles. This study advances ESP scholarship by foregrounding cultural epistemologies as central to curriculum innovation and by repositioning needs analysis as a design-oriented mechanism for transformative digital pedagogy in non-Western higher education contexts.

Keywords: ESP, needs analysis, health communication, Malay Riau culture.

1) INTRODUCTION

Beyond the expanding global emphasis on English for Specific Purposes (ESP), the implementation of ESP curricula in health sciences education continues to reveal a persistent misalignment between pedagogical design and the communicative realities of professional healthcare settings. While ESP has been widely recognized as a needs-driven approach that prioritizes discipline-specific language use (Hutchinson & Waters, 1987; Dudley-Evans & St John, 1998), many higher education institutions particularly in non-Western contexts still rely heavily on General English paradigms. This overreliance limits students' exposure to authentic clinical discourse, restricts the development of pragmatic competence, and ultimately undermines their readiness to engage in real-world healthcare communication. The issue becomes more complex when cultural dimensions are neglected, despite the fact that communication in healthcare is inherently shaped by socio-cultural norms, values, and expectations.

In the context of Indonesian health education, particularly within the Malay Riau cultural setting, the absence of culturally responsive ESP materials represents a critical gap. Prior studies have highlighted that effective ESP instruction should integrate not only linguistic and professional competencies but also culturally embedded communication practices (Belcher, 2006; Basturkmen, 2010). However, existing ESP curricula rarely incorporate local cultural epistemologies as a foundational element of instructional design. As a result, students may demonstrate surface-level language proficiency yet struggle with culturally appropriate communication in sensitive healthcare interactions, such as patient consultations, delivering diagnoses, or expressing empathy. This indicates that current ESP models insufficiently address the intersection between language, profession, and culture.

Moreover, needs analysis widely regarded as the cornerstone of ESP curriculum development has often been treated as a preliminary or procedural step rather than a transformative design mechanism (Long, 2005; Nation & Macalister, 2010). Many implementations fail to fully capture the complexity of workplace communication demands, particularly in healthcare contexts where communication is both high-stakes and context-sensitive. Empirical evidence suggests that students frequently encounter difficulties in performing clinical speaking tasks, interpreting authentic medical texts, and adapting language use to culturally nuanced situations. These challenges point to a structural gap between curriculum content and actual professional requirements, necessitating a reconceptualization of ESP curriculum design.

Responding to these issues, this study aims to reconstruct the ESP curriculum in health sciences through a comprehensive needs analysis and the development of a culturally embedded digital e-module grounded in Malay Riau values. Specifically, this study addresses the following research questions: (1) To what extent does the existing ESP curriculum align with the communicative needs of healthcare professionals? (2) What are the linguistic, professional, and cultural gaps identified by key stakeholders, including lecturers, students, and practitioners? (3) How can a needs-driven and culturally responsive ESP framework be operationalized through digital e-module development? By integrating document analysis with multi-stakeholder perspectives, this study seeks to generate an empirically grounded and contextually relevant model for ESP curriculum innovation.

This research is positioned within a growing body of literature advocating for culturally situated and context-sensitive approaches to ESP (Paltridge & Starfield, 2013; Hyland, 2016). It advances the discourse by foregrounding Malay Riau cultural principles as an integral component of language learning, rather than as supplementary content. Furthermore, it reconceptualizes needs analysis as a dynamic and design-oriented process that informs not only curriculum evaluation but also the development of transformative digital learning materials. In doing so, this study contributes to the ongoing shift toward more inclusive, localized, and pedagogically robust ESP practices in higher education.

Ultimately, this study argues that effective ESP curriculum design in health sciences must move beyond generic language instruction toward a holistic integration of linguistic specificity, professional authenticity, and cultural embeddedness. By addressing these dimensions through a systematically developed e-module, the research offers a scalable and theoretically grounded framework for enhancing students' speaking and reading competencies in culturally complex healthcare environments.

2) METHODS

This study employed a qualitative research design to critically examine the misalignment between existing ESP curricula and the communicative demands of healthcare contexts, and to establish a needs-based foundation for the development of a culturally embedded e-module. A qualitative approach was selected to allow for an in-depth exploration of stakeholders'

perspectives, contextual practices, and institutional documents, particularly in relation to linguistic specificity, professional authenticity, and cultural embeddedness.

The population of this study consisted of stakeholders involved in health sciences education and practice. These included undergraduate health students, ESP lecturers, and healthcare practitioners. A purposive sampling technique was employed to ensure the inclusion of participants who possessed relevant experience and insights into ESP implementation and healthcare communication. The sample comprised undergraduate students enrolled in health-related programs, lecturers responsible for ESP instruction, and practitioners working in clinical settings such as hospitals and community health centers. These participants were selected based on their direct engagement with English use in academic or professional healthcare environments.

Data were collected through two primary methods: document analysis and semi-structured interviews. Institutional documents, including ESP syllabi, course outlines, teaching materials, and assessment tasks, were systematically analyzed to identify the extent to which current curricula reflected discipline-specific language use and professional communication needs. In addition, semi-structured interviews were conducted with lecturers, students, and healthcare practitioners to capture multi-perspective insights into existing practices, perceived gaps, and contextual communication demands. The interview protocol was designed to elicit information related to three analytical dimensions: linguistic needs, professional task authenticity, and cultural communication norms rooted in Malay Riau values.

All interviews were conducted in a controlled and ethical manner. Participants were informed about the purpose of the study, and their consent was obtained prior to data collection. The interviews were audio-recorded and subsequently transcribed for analysis. To ensure data credibility, triangulation was applied by comparing findings across different data sources, including documents and stakeholder perspectives.

The data were analyzed using thematic analysis. The analysis process was conducted in several stages. First, all data were familiarized through repeated reading of transcripts and documents. Second, initial codes were generated to identify recurring patterns related to ESP practices and communication challenges. Third, these codes were categorized into broader themes aligned with the three core dimensions: linguistic specificity, professional authenticity, and cultural embeddedness. Finally, the themes were interpreted to reveal the extent of alignment between curriculum content and real-world healthcare communication needs.

In addition to qualitative analysis, the findings from the needs analysis were used as a design basis for developing a prototype of a digital e-module. The development process followed a needs-driven framework, where identified gaps informed the selection of content, tasks, and cultural integration strategies. The e-module was designed to incorporate authentic healthcare communication scenarios, discipline-specific vocabulary, and Malay Riau cultural principles to enhance students' speaking and reading competencies.

To ensure the trustworthiness of the study, several strategies were employed. Credibility was established through data triangulation and prolonged engagement with the data. Transferability was supported by providing detailed descriptions of the research context and participants. Dependability and confirmability were addressed by maintaining an audit trail of data collection and analysis procedures.

Overall, the methodological approach of this study enabled a comprehensive and context-sensitive examination of ESP curriculum practices, while also providing a robust empirical foundation for the development of a culturally responsive digital learning intervention in health sciences education.

3) RESULTS

This section presents the findings derived from document analysis and semi-structured interviews with lecturers, undergraduate health students, and healthcare practitioners. The findings are organized into three major themes: (1) linguistic specificity, (2) professional authenticity, and (3) cultural embeddedness.

Linguistic Specificity

The analysis of institutional documents revealed that the existing ESP curriculum predominantly emphasized general English competencies rather than discipline-specific language use. Course syllabi and teaching materials were found to focus on general grammar, basic vocabulary, and non-specialized reading passages.

Table 1. Distribution of Language Content in Existing ESP Curriculum

Language Focus	Frequency (%)
General English	68%
Medical Terminology	17%

Clinical Communication	10%
Academic Health Texts	5%

The interview data indicated that students reported difficulties in understanding medical terminology and expressing ideas in clinical contexts. Lecturers acknowledged limited integration of discipline-specific materials, while practitioners emphasized the importance of precise and context-relevant language in healthcare communication.

Professional Authenticity

Document analysis showed limited inclusion of authentic healthcare tasks within the ESP curriculum. Teaching materials rarely incorporated real-life clinical scenarios such as patient interviews, case discussions, or interdisciplinary communication. The data indicated that most classroom activities were text-based and decontextualized. Interview findings revealed that students had minimal exposure to simulated clinical interactions. Practitioners reported that graduates often struggled with real-time communication tasks, including explaining procedures, giving instructions, and responding to patients' concerns.

Cultural Embeddedness

The findings demonstrated that cultural aspects, particularly Malay Riau values, were absent from the current ESP curriculum. Institutional documents did not include culturally grounded communication strategies or context-specific interaction norms.

Table 2. Presence of Cultural Elements in ESP Curriculum

Cultural Component	Presence
Local Cultural Values	No
Politeness Strategies	Limited
Contextual Communication Norms	No
Intercultural Awareness	Limited

Interview data showed that both lecturers and students rarely engaged with culturally contextualized materials. Practitioners highlighted the importance of culturally appropriate communication in healthcare settings, particularly in delivering sensitive information and maintaining respectful interactions with patients.

Identified Needs for ESP Curriculum Development

Across all data sources, a consistent pattern of needs emerged. These included the integration of discipline-specific language, authentic clinical communication tasks, and culturally grounded communication practices.

The findings indicated that stakeholders emphasized the necessity of a needs-driven ESP framework that aligns with real-world healthcare communication demands. These needs were consistently identified across students, lecturers, and practitioners.

Overall, the results demonstrated a structural gap between the current ESP curriculum and the communicative requirements of healthcare contexts, as reflected in the limited linguistic specificity, lack of professional authenticity, and absence of cultural embeddedness.

4) DISCUSSION

The present study set out to reconstruct the ESP curriculum in health sciences by grounding it in needs analysis and Malay Riau cultural values. The findings revealed three critical gaps: limited linguistic specificity, lack of professional authenticity, and absence of cultural embeddedness. These findings collectively indicate that the current ESP curriculum remains insufficiently aligned with the communicative demands of real-world healthcare contexts.

First, the dominance of General English content over discipline-specific language confirms longstanding concerns in ESP scholarship regarding the misapplication of generalized language instruction in specialized domains. The findings support earlier arguments that ESP should prioritize target situation needs and professional discourse (Hutchinson & Waters, 1987; Dudley-Evans & St John, 1998). The limited presence of medical terminology and clinical communication tasks identified in this study suggests that students are not adequately prepared to engage in healthcare-specific interactions. This aligns with Hyland (2016), who emphasized that disciplinary discourse is central to learners' academic and professional success. Without sufficient exposure to authentic medical language, students may develop only surface-level proficiency, which does not translate into functional communicative competence in clinical settings.

Second, the lack of professional authenticity in ESP materials highlights a critical pedagogical limitation. The findings showed that classroom activities were largely decontextualized and did not reflect real-life healthcare communication practices. This supports previous research indicating that ESP instruction often fails to simulate workplace communication (Basturkmen, 2010). In healthcare contexts, communication is inherently dynamic, requiring the ability to

respond to patients, collaborate with colleagues, and convey complex information clearly and empathetically. The absence of authentic tasks such as patient interviews, case discussions, and clinical simulations limits students' ability to transfer classroom learning to professional practice. This reinforces the argument that ESP pedagogy must incorporate task-based and scenario-driven learning to enhance authenticity and relevance.

Third, the absence of cultural embeddedness particularly the integration of Malay Riau values represents a significant gap in the curriculum. The findings demonstrate that cultural dimensions of communication were largely overlooked, despite their critical role in shaping interactional norms in healthcare. This supports the view that language learning cannot be separated from its cultural context (Kramsch, 1998). In healthcare communication, cultural sensitivity is essential for building trust, demonstrating empathy, and ensuring patient-centered care. The lack of culturally grounded instruction may hinder students' ability to navigate culturally nuanced interactions, especially in local contexts where values such as politeness, respect, and indirectness are highly emphasized. This finding extends current ESP literature by highlighting the importance of integrating local cultural epistemologies into curriculum design, particularly in non-Western educational settings.

Furthermore, this study reconceptualizes needs analysis as a dynamic and design-oriented process rather than a preliminary step. The findings demonstrate that a comprehensive needs analysis incorporating perspectives from lecturers, students, and practitioners can generate a more nuanced understanding of communicative demands. This is consistent with Long (2005), who argued for the centrality of needs analysis in ESP curriculum development. However, this study advances the discussion by showing how needs analysis can directly inform the development of digital learning materials, specifically a culturally embedded e-module. In this sense, needs analysis is positioned not only as an evaluative tool but also as a transformative mechanism for pedagogical innovation.

Despite its contributions, this study has several limitations. First, the research was conducted within a specific institutional and cultural context, which may limit the generalizability of the findings to other regions or disciplines. Second, the study relied primarily on qualitative data, which, while providing depth and contextual insight, does not allow for statistical generalization. Third, the development of the e-module was based on identified needs but was not empirically tested for effectiveness within this study. As such, the impact of the proposed intervention on

students' speaking and reading skills remains to be validated through experimental or quasi-experimental research designs.

These limitations suggest several directions for future research. Further studies are needed to evaluate the effectiveness of culturally embedded ESP e-modules using quantitative methods, such as pre-test and post-test designs, to measure learning outcomes and effect sizes. Comparative studies across different cultural contexts would also be valuable in examining the transferability of culturally grounded ESP frameworks. Additionally, future research could explore the integration of advanced digital technologies, such as AI-based simulations or virtual patient interactions, to enhance the authenticity of ESP learning environments.

In conclusion, this study contributes to ESP scholarship by emphasizing the need for a more integrated approach that combines linguistic specificity, professional authenticity, and cultural embeddedness. It also highlights the potential of needs analysis as a foundation for innovative and context-sensitive curriculum design. These findings underscore the importance of moving beyond generalized language instruction toward a more localized, relevant, and transformative ESP pedagogy in health sciences education.

5) CONCLUSION

This study has critically examined the current implementation of the ESP curriculum in health sciences and identified a fundamental misalignment between instructional content and the communicative demands of professional healthcare contexts. The findings demonstrated that the existing curriculum remains heavily oriented toward General English, with limited integration of discipline-specific language, minimal exposure to authentic clinical communication tasks, and a notable absence of culturally embedded communication practices. These gaps collectively constrain students' ability to perform effectively in real-world healthcare interactions, particularly in contexts that require both linguistic precision and cultural sensitivity.

By employing a comprehensive needs analysis that incorporated perspectives from lecturers, students, and healthcare practitioners, this study established an empirical foundation for reconstructing the ESP curriculum. The results underscored the necessity of integrating three core dimensions linguistic specificity, professional authenticity, and cultural embeddedness into ESP design. In response, this study proposed a needs-driven and theoretically grounded framework operationalized through the development of a digital e-module that embeds Malay Riau cultural

values within professional healthcare communication. This approach repositions ESP not merely as language instruction, but as a context-sensitive and culturally responsive pedagogical practice.

The implications of this study are both theoretical and practical. Theoretically, this research contributes to ESP scholarship by foregrounding local cultural epistemologies as a central component of curriculum innovation, particularly in non-Western higher education contexts. It also extends the role of needs analysis from a diagnostic tool to a design-oriented mechanism that directly informs the development of digital learning interventions. Practically, the proposed e-module framework offers a scalable model for improving students' speaking and reading competencies in health sciences, with potential applicability across similar educational settings.

Several recommendations can be drawn from this study. First, curriculum developers and educators are encouraged to move beyond generalized English instruction and adopt a more targeted ESP approach that reflects the communicative realities of healthcare practice. Second, the integration of culturally grounded communication norms such as those derived from Malay Riau values—should be prioritized to enhance students' pragmatic competence and intercultural sensitivity. Third, the use of digital learning platforms should be expanded to support interactive, authentic, and context-rich learning experiences.

Finally, future research is recommended to empirically test the effectiveness of the developed e-module through experimental or quasi-experimental designs, including the measurement of learning outcomes, effect sizes, and long-term retention. Broader investigations across diverse cultural and disciplinary contexts are also needed to strengthen the generalizability of culturally embedded ESP frameworks. Overall, this study highlights the urgent need for a transformative shift in ESP curriculum design one that is needs-driven, professionally relevant, and culturally grounded to better prepare health students for the complex communicative demands of their future professions.

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