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RESEARCH ARTICLE

THE DEVELOPMENT OF ENGLISH TEXTBOOK BASED ON ADDIE MODEL AT PJKR STUDI PROGRAM

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Abstract: This study aimed to develop an English textbook for the Physical Education, Health, and Recreation (PJKR) Study Program using the ADDIE model. The research employed a research and development (R&D) approach, systematically implementing the Analysis, Design, Development, Implementation, and Evaluation stages. Needs analysis was conducted through questionnaires to identify students' linguistic, pedagogical, and contextual requirements. The findings revealed the necessity for contextual, level-appropriate English materials emphasizing sports terminology, instructional language, academic reading, and professional communication. Based on these findings, the textbook was designed and developed with theme-based units, integrated language skills, contextual tasks, and visual supports relevant to the PJKR study program context. The textbook was then implemented through a limited try-out and evaluated by students, a material expert, and a language expert. The results showed that the textbook achieved a feasibility level of 78% from students (feasible), 74% from the material expert (feasible), and 82% from the language expert (very feasible). These results indicate that the developed textbook is pedagogically sound, relevant, and suitable for English textbook in PJKR Study Program. Overall, the study confirms that integrating ESP principles with the ADDIE model provides an effective framework for developing contextual, learner-centered instructional materials in higher education.

Keywords: R&D; English textbook; ADDIE model; Physical Education, Health and Recreation (PJKR) Study Program.

PENGEMBANGAN BUKU AJAR BAHASA INGGRIS BERBASIS MODEL ADDIE PADA PROGRAM STUDI PJKR UNIVERSITAS PGRI BANYUWANGI

Abstrak: Penelitian ini bertujuan untuk mengembangkan buku ajar Bahasa Inggris untuk Program Studi Pendidikan Jasmani, Kesehatan, dan Rekreasi (PJKR) dengan menggunakan model ADDIE. Penelitian ini menggunakan pendekatan *research and development* (R&D) dengan menerapkan secara sistematis tahapan Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi. Analisis kebutuhan dilakukan melalui penyebaran kuesioner untuk mengidentifikasi kebutuhan linguistik, pedagogis, dan kontekstual mahasiswa. Hasil penelitian menunjukkan adanya kebutuhan akan bahan ajar Bahasa Inggris yang kontekstual dan sesuai dengan tingkat kemampuan mahasiswa, dengan penekanan pada terminologi olahraga, bahasa instruksional, keterampilan membaca akademik, serta komunikasi profesional. Berdasarkan temuan tersebut, buku ajar dirancang dan dikembangkan dalam bentuk unit-unit tematik yang mengintegrasikan keterampilan berbahasa, tugas-tugas kontekstual, serta dukungan visual yang relevan dengan konteks Program

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Studi PJKR. Buku ajar yang dikembangkan kemudian diimplementasikan melalui uji coba terbatas dan dievaluasi oleh mahasiswa, ahli materi, dan ahli bahasa. Hasil evaluasi menunjukkan bahwa buku ajar memperoleh tingkat kelayakan sebesar 78% dari mahasiswa (layak), 74% dari ahli materi (layak), dan 82% dari ahli bahasa (sangat layak). Hasil ini menunjukkan bahwa buku ajar yang dikembangkan memiliki kualitas pedagogis yang baik, relevan, dan sesuai untuk digunakan dalam pembelajaran Bahasa Inggris di Program Studi PJKR. Secara keseluruhan, penelitian ini menegaskan bahwa integrasi prinsip-prinsip ESP dengan model ADDIE merupakan kerangka kerja yang efektif dalam mengembangkan bahan ajar yang kontekstual dan berpusat pada peserta didik di pendidikan tinggi.

Kata kunci: R&D; Buku ajar Bahasa Inggris; model ADDIE; Program Studi Pendidikan Jasmani, Kesehatan, dan Rekreasi (PJKR).

INTRODUCTION

Limitations of General English in Discipline-Specific Contexts

The internationalization of higher education has increased the demand for discipline-specific English proficiency across academic fields, including Physical Education, Health, and Recreation (PJKR). For PJKR students, English functions not only as a general communication tool but as a medium for accessing sport-science literature, interpreting international regulations, and participating in professional discourse communities.

Despite this need, English instruction in many non-English departments remains dominated by General English (GE) materials that emphasize decontextualized grammar and broad thematic content. As argued by Ken Hyland (2006), language learning is more effective when situated within disciplinary discourse practices rather than isolated structural instruction. Similarly, Helen Basturkmen (2010) notes that GE materials frequently fail to address learners' target communicative purposes.

In Indonesian higher education, empirical findings report limited engagement and weak transferability of GE instruction to discipline-specific tasks. This pedagogical misalignment is particularly evident in PJKR programs, where students require competence in sports terminology, instructional discourse, academic reading of sport-science texts, and professional communication. The persistence of GE-based materials therefore creates a structural gap between instructional provision and professional demands.

ESP as a Discipline-Responsive Pedagogical Framework

English for Specific Purposes (ESP) provides a theoretically grounded alternative by prioritizing learners' communicative purposes within defined academic or occupational domains. Tom Hutchinson and Alan Waters (1987) conceptualize ESP as an approach driven by learners' reasons for learning, rather than by specialized vocabulary alone. This orientation shifts attention from generic language competence to contextualized communicative performance.

More recent scholarship reinforces this needs-driven perspective. Helen Basturkmen (2025) emphasizes that ESP course design must be grounded in systematic analysis of target-situation communication. Likewise, Brian Paltridge (2013) highlights the importance of aligning materials with authentic disciplinary genres and discourse practices.

Within the PJKR context, ESP entails integrating sports instruction language, fitness and health discourse, sport-science literacy, and academic reporting tasks into the curriculum. Prior studies in Indonesian ESP settings demonstrate that discipline-based materials enhance learner motivation and communicative competence, supporting Ken Hyland's (2002) claim that specificity

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strengthens engagement and learning outcomes. Thus, ESP offers a pedagogical foundation capable of addressing the contextual inadequacies of GE instruction.

Needs Analysis as the Core of ESP Design

Needs Analysis (NA) remains the defining feature of ESP. John Munby (1978) introduced Target Situation Analysis to identify communicative requirements in professional contexts. Expanding this framework, Tom Hutchinson and Alan Waters (1987) distinguished between *target needs* (necessities, lacks, wants) and *learning needs*, integrating both contextual and learner-centered dimensions.

Contemporary ESP research advocates multi-source data collection to ensure validity and reduce subjectivity (Basturkmen, 2010; Paltridge, 2013). For PJKR students, NA must encompass coaching discourse, classroom instruction language, academic sport-science reading, and written reporting tasks. Systematic NA therefore serves not only as diagnostic groundwork but as the epistemological anchor of ESP material development.

ADDIE as a Systematic Instructional Design Model

While ESP provides theoretical direction, material development requires methodological rigor. The ADDIE model—Analysis, Design, Development, Implementation, and Evaluation—offers a structured and iterative framework that aligns learner needs, instructional objectives, pedagogical strategies, and evaluation mechanisms (Molenda, 2021; Branch & Kopcha, 2021).

The integration of ESP principles with ADDIE strengthens internal coherence between needs analysis and material realization. In higher education contexts, ADDIE-based development has been shown to enhance feasibility, validity, and user satisfaction. For PJKR programs, this integration ensures that English materials are not only contextually relevant but systematically designed and empirically evaluated.

Research Gap and Contribution

Despite the expansion of ESP research across vocational and scientific disciplines, studies focusing on sport, physical education, and health remain comparatively limited. Existing research frequently prioritizes digital media interventions rather than comprehensive textbook development grounded in systematic instructional design.

This study responds to that gap by developing an ESP-based English textbook tailored specifically to PJKR students using the ADDIE framework. By integrating discipline-specific communication demands with structured instructional design, the study contributes both pedagogically and theoretically to ESP material development in sport-related higher education contexts.

Based on the theoretical perspectives discussed above, the research questions are: 1) What are the English language needs of students in the Physical Education, Health, and Recreation (PJKR) Study Program? and 2) How can an ESP-based English textbook for the PJKR Study Program be developed using the ADDIE instructional design model?

RESEARCH METHOD

This study adopted a Research and Development (R&D) design aimed in producing and validating an instructional product in the form of an English for Specific Purposes (ESP) based English textbook for the Physical Education, Sports, and Health Education (PJKR) Study Program. The R&D approach is particularly appropriate for educational research that seeks not only to examine existing instructional conditions but also to generate practical, evidence-based learning solutions tailored to

specific learner needs (Rahmawati & Nugroho, 2024). The development process was guided by the ADDIE instructional design model, which consists of five systematic and iterative stages: Analysis, Design, Development, Implementation, and Evaluation. The ADDIE model was selected due to its structured yet flexible framework and its proven effectiveness in instructional material development in higher education, particularly in language and ESP contexts (Branch & Kopcha, 2021; Molenda, 2021). Previous studies have confirmed that ADDIE provides a comprehensive mechanism for aligning learner needs, learning objectives, instructional content, and evaluation procedures in a coherent manner (Adeoye et al., 2024; Mubaroh et al., 2023). In line with ESP principles, this research emphasized a learner-centered and needs-based orientation to ensure that the developed textbook addressed the specific communicative demands and professional contexts encountered by PJKR study program's students in academic and occupational settings (Anthony, 2020; Sari & Fitriani, 2022).

The participants of this study consisted of two main groups: undergraduate students of the PJKR study program and expert validators. The student participants were enrolled in an English course during the academic year of the study and were involved in both the needs analysis phase and the limited implementation of the developed textbook. Their participation was essential for identifying authentic language needs related to sports education, coaching communication, physical fitness instruction, and health-related discourse, which are central to ESP-oriented material development (Rahman Putra et al., 2025). In addition, three categories of experts were engaged to validate the textbook: an English language expert who evaluated linguistic accuracy, clarity, and appropriateness of ESP discourse; a sports education expert who assessed the relevance and accuracy of sports-related content and terminology; and an instructional media expert who reviewed the instructional design, layout, and pedagogical coherence of the textbook. Expert validation is widely recognized as a crucial component in R&D studies to ensure content validity, instructional feasibility, and alignment with learning outcomes in higher education contexts (Syakur et al., 2020; Rahmawati et al., 2024).

The research procedures followed the five stages of the ADDIE model, they are: Analysis, Design, Development, Implementation, and Evaluation. The **analysis stage** focused on identifying students' characteristics, the specific language needs, learning needs, usage context, and textbook design preferences. Needs analysis is a fundamental element in ESP material development, as it ensures that instructional content reflects learners' actual academic and professional language requirements rather than generalized language skills (Anthony, 2020; Prasongko, 2023). Based on these findings, the **design stage** formulated learning objectives and structured the textbook content, units, and learning activities in alignment with course learning outcomes. During the **development stage**, the ESP-based textbook was written, designed, and validated by subject-matter, language, and instructional media experts. The **implementation stage** involved a limited classroom trial to examine the practicality and student engagement with the textbook. Limited implementation is commonly employed in R&D studies to assess practicality and initial effectiveness before wider-scale application (Mubaroh et al., 2023; Rahmawati & Nugroho, 2024). Finally, the **evaluation stage** was conducted both formatively and summatively using expert validation results and student feedback to refine and improve the final product. The results of the evaluation informed final revisions aimed at enhancing the quality and applicability of the developed textbook (Molenda, 2021; Adeoye et al., 2024).

Data collection in this study employed multiple instruments, including needs analysis questionnaires, expert validation checklists, and student feedback forms. Quantitative data obtained from questionnaires and validation instruments were analyzed descriptively using mean scores and percentage distributions to determine the feasibility level of the textbook. Meanwhile, qualitative data derived from expert comments and student feedback were analyzed thematically to identify recurring themes related to strengths, weaknesses, and suggestions for improvement. The integration of quantitative and qualitative data analysis is recommended in ESP R&D studies to ensure comprehensive evaluation and meaningful refinement of instructional products (Rahmawati et al., 2024; Sintia et al., 2024).

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RESULTS AND DISCUSSION

Based on the results of the needs analysis questionnaire, the research findings show that the Analysis phase of the ADDIE model successfully captured the actual linguistic, pedagogical, and contextual needs of PJKR study program's students. The learner analysis revealed that most students perceived English as important for supporting their academic studies and future professional roles in sports and health education, although their prior English learning experiences and proficiency levels varied considerably. This variation confirmed the need for instructional materials to be organized into graded levels (basic, intermediate, and advanced) to accommodate heterogeneous student abilities.

Analysis

The target needs analysis, as reflected in students' responses, indicated strong needs in understanding sports-related terminology, comprehending and giving simple to extended sports instructions, reading texts and articles related to sports and physical health, and gradually developing academic skills such as participating in discussions and writing short reports or academic texts in English. These findings directly guided the selection of ESP content, language functions, and communicative tasks included in the textbook.

Furthermore, the learning needs analysis showed that students preferred materials that are closely connected to daily sports practice, supported by step-by-step sentence construction exercises, contextual dialogues, and practical speaking activities. Many students also expressed a preference for textbooks that incorporate visual aids and are complemented by digital media such as audio or video to enhance comprehension and motivation. The context and learning environment analysis highlighted the need for a textbook that is flexible and applicable both in classroom settings and during field-based or practical sports activities. Finally, the media and design preference analysis emphasized the importance of clear layouts, sports-related illustrations, tables, and practice-oriented exercises. Overall, the questionnaire results provided a strong empirical foundation for designing and developing an ESP-based English textbook that is contextual, level-appropriate, and responsive to the academic and professional needs of PJKR study program's students.

Design

Based on the results of the Design stage, the research findings indicate that the instructional blueprint of the ESP-based English textbook was systematically formulated by translating the outcomes of the needs analysis into concrete learning objectives, content structure, and instructional strategies. Learning objectives were derived from the Course Learning Outcomes (CLOs) and aligned with the specific linguistic demands of the PJKR study program's context, ensuring that each unit supported students' academic and professional competencies in sports and health education. The objectives emphasized the development of integrated language skills—listening, speaking, reading, and writing—with particular attention to functional language use in sports-related situations.

The textbook was designed using a theme-based unit organization that reflects key domains in PJKR, such as sports communication, physical fitness, human anatomy, coaching instructions, sports rules, and sports injuries. Each unit followed a consistent instructional sequence, beginning with contextual input activities (e.g., short readings or dialogues), followed by vocabulary enrichment, guided practice, and communicative tasks. This structure was intended to facilitate gradual language development from controlled to more meaningful and productive use.

In terms of pedagogical design, the findings show that task-based and contextual learning principles were embedded in each unit to ensure relevance to students' real learning environments. Activities were designed progressively, moving from simple sentence construction to longer instructional and descriptive texts, in line with the differentiated levels identified during the Analysis

stage. Visual elements, such as illustrations and tables related to sports activities, were deliberately planned to support comprehension and maintain learner engagement. Overall, the Design stage findings demonstrate that the instructional framework of the textbook was coherently developed to ensure alignment between learner needs, learning objectives, content organization, and instructional strategies within the ESP and ADDIE framework.

Development

Based on the Development stage, the research findings indicate that the ESP-based English textbook was successfully produced in accordance with the instructional design formulated in the previous stage. The content of each unit was systematically developed to reflect the identified PJKR study program's contexts, integrating sports-related themes, terminology, and communicative functions relevant to physical education, sports, and health. Learning materials were presented through contextual reading texts, dialogues, and situational tasks that simulate authentic academic and professional interactions in sports settings.

The findings show that each unit incorporated integrated language-skill activities, including listening, speaking, reading, and writing, supported by vocabulary exercises and functional language practice. Learning tasks were sequenced from controlled to more communicative activities, allowing students to gradually develop confidence in using English for sports instruction, discussion, and written reporting. Visual supports such as images, diagrams, tables, and a glossary of sports-related terms were included to enhance comprehension and facilitate technical vocabulary acquisition.

These results align with previous research indicating that integrated skills approaches and task sequencing are effective in ESP material development. For example, *Mubaroh, Ayu, and Nitalia (2023)* found that ESP materials designed using the ADDIE model with integrated skills and communicative tasks significantly enhanced learner engagement and language performance in discipline-specific contexts; similarly, *Fadlia et al. (2024)* observed that ESP digital materials incorporating multimodal supports (visuals, glossaries, and contextual texts) were perceived by vocational learners as more comprehensible and motivating than traditional texts. This supports the present study's finding that visual aids and structured communicative sequencing contribute to better vocabulary acquisition and learner confidence.

Moreover, the sequencing from controlled to communicative activities is consistent with *Sari and Fitriani's (2022)* findings that scaffolding tasks from simple to complex fosters more effective language development among ESP learners. Likewise, *Syakur et al. (2020)* reported that pharmacy students demonstrated higher confidence and communicative competence when ESP materials gradually transitioned from structured practice to authentic task performance.

However, the present study extends the literature by contextualizing integrated skills specifically within a sports and health domain (PJKR) a field that has received limited attention in ESP research. While *Rahman Putra et al. (2025)* identified the need for sports-related language skills among physical education students, there has been little empirical work demonstrating how integrated skills and multimodal supports are operationalized in textbook design for this specific context. The inclusion of diagrams, tables, and a domain-specific glossary in this study's materials therefore contributes new insights into how ESP textbooks can be tailored to field-specific cognitive and communicative demands.

Expert validation results during the Development stage indicated that the textbook demonstrated strong content relevance, linguistic accuracy, and instructional coherence. Feedback from the English language expert confirmed the appropriateness of language level and clarity of instructions, while the sports education expert validated the accuracy and contextual relevance of sports-related content. The instructional media expert highlighted the consistency of layout, readability, and alignment between learning objectives, materials, and activities. Revisions based on expert suggestions led to improvements in task clarity, content organization, and visual presentation. Overall, the Development stage findings confirm that the textbook met pedagogical, linguistic, and

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disciplinary standards, making it suitable for limited implementation in English learning context of the PJKR study program.

Implementation

The implementation stage was conducted through a limited try-out to examine the practicality and initial feasibility of the developed ESP-based English textbook in the PJKR study program's learning context. During this stage, the textbook was used as the main instructional material in English learning activities for students of the Physical Education, Health, and Recreation Study Program.

The results of the student try-out questionnaire indicated that the textbook achieved a feasibility percentage of 78%, which falls into the feasible category. This result suggests that the textbook was acceptable to students and could be effectively used to support English learning activities in the PJKR study program. Students generally perceived the materials as relevant to their field of study, understandable, and supportive of their learning needs.

In addition, the evaluation conducted by the subject-matter expert showed that the textbook obtained a feasibility percentage of 74%, categorized as feasible. This finding indicates that the content was appropriate and relevant to the PJKR study program's context, including the accuracy of sports-related topics, terminology, and learning objectives, making the textbook suitable for instructional use.

Furthermore, the language expert evaluation revealed a feasibility percentage of 82%, which was categorized as very feasible. This result demonstrates that the textbook met high standards of linguistic accuracy, clarity, and appropriateness of language use for the target learners.

Overall, the findings from the implementation stage confirm that the developed ESP-based English textbook is feasible and appropriate for use in English instruction within the Physical Education, Health, and Recreation Study Program, with strong acceptance from students and positive evaluations from both material and language experts.

Evaluation

The evaluation stage focused on assessing the overall quality, feasibility, and effectiveness of the ESP-based English textbook developed for the Physical Education, Health, and Recreation (PJKR) Study Program. Evaluation was conducted both formatively and combatively in accordance with the ADDIE model to ensure continuous improvement of the instructional product.

Formative evaluation was carried out throughout each stage of development through expert reviews and revisions. Feedback from the material expert, language expert, and instructional considerations was used to refine the textbook in terms of content relevance, linguistic accuracy, clarity of instructions, and alignment with learning objectives. These ongoing evaluations ensured that the textbook consistently met ESP principles and instructional design standards.

Summative evaluation was conducted after the implementation stage using student response questionnaires and expert validation results. The findings indicated that the textbook achieved an overall acceptable level of feasibility, with positive evaluations from students and experts. The evaluation results demonstrated that the textbook effectively addressed students' specific language needs in sports and health contexts, supported integrated language skills, and was suitable for use in both classroom and field-based learning settings.

Based on the evaluation outcomes, minor revisions were made to improve the clarity of explanations, the sequencing of learning activities, and the presentation of visual elements. Overall, the evaluation findings confirm that the developed ESP-based English textbook is effective, relevant, and appropriate for English learning in the PJKR study program, and it is ready for broader implementation with potential for further refinement based on future use.

This study demonstrates that the development of an ESP-based English textbook for the Physical Education, Health, and Recreation (PJKR) Study Program using the ADDIE model is pedagogically sound, empirically grounded, and responsive to learners' academic and professional

needs. The discussion integrates the research findings across the ADDIE stages with relevant theories and prior studies in ESP and instructional design.

The findings from the needs analysis confirm the central principle of ESP that instructional materials must be derived from learners' specific purposes, target contexts, and proficiency levels (Anthony, 2020). The identification of heterogeneous English proficiency among PJKR study program's students supports the differentiation of materials into graded levels, aligning with ESP research emphasizing level appropriate scaffolding to enhance learning effectiveness (Sari & Fitriani, 2022). Moreover, students' strong perceptions of English as essential for academic study and professional practice in sports and health are consistent with recent needs-analysis studies in ESP contexts, which highlight the growing demand for discipline-specific English competencies (Rahman Putra et al., 2025; Indrapuri et al., 2025). The emphasis on sports terminology, instructional language, academic reading, and writing further corroborates findings that ESP learners require functional and academic language aligned with their disciplinary practices (Prasongko, 2023; Sintia et al., 2024).

The design findings indicate that translating needs analysis results into clearly aligned learning objectives, content structures, and instructional strategies is crucial for effective ESP material development. The theme-based organization reflects recommendations in ESP literature that content should mirror authentic professional domains and communicative situations (Anthony, 2020). The integration of four language skills within each unit supports the view that ESP instruction should reflect real-world language use rather than isolated skill practice (Sari & Fitriani, 2022). From an instructional design perspective, the coherent alignment between Course Learning Outcomes (CLOs), objectives, materials, and tasks confirms the strength of the ADDIE model in ensuring systematic and goal-oriented design (Branch & Kopcha, 2021; Molenda, 2021).

The development findings show that the production of contextualized materials, supported by visual aids and progressive tasks, enhanced both disciplinary relevance and pedagogical clarity. This aligns with prior ESP development studies reporting that contextual dialogues, task-based activities, and domain-specific vocabulary significantly improve learner engagement and perceived usefulness (Syakur et al., 2020; Mubaroh et al., 2023). Expert validation results further reinforce the importance of multidisciplinary review in ESP textbook development to ensure linguistic accuracy, disciplinary validity, and instructional coherence (Uspayanti & Indriyani, 2024; Rahmawati et al., 2024). Revisions based on expert feedback reflect the iterative nature of ADDIE and support Molenda's (2021) assertion that continuous refinement is essential for producing high-quality instructional materials.

The implementation results indicate that the textbook achieved acceptable to very high feasibility levels from students and experts, demonstrating its practicality and instructional suitability. Student acceptance (78%) suggests that the materials were relevant, understandable, and motivating, consistent with studies showing that ESP textbooks tailored to learners' fields increase engagement and learning satisfaction (Maulida, 2024; Syakur et al., 2020). The higher feasibility score from the language expert (82%) highlights the effectiveness of level-appropriate language use and clarity, while the material expert's evaluation (74%) confirms the relevance of sports-related content. These findings support previous research indicating that ADDIE-based ESP materials are generally well-received when grounded in systematic needs analysis and expert validation (Adeoye et al., 2024; Rahmawati & Nugroho, 2024).

The evaluation findings affirm that formative and summative assessments are essential in validating both the quality and effectiveness of instructional products. Continuous expert feedback throughout development ensured alignment with ESP principles and instructional design standards, as recommended by Branch and Kopcha (2021). Summative evaluation results demonstrate that the textbook effectively addressed students of PJKR study programs linguistic and contextual needs, supporting integrated language-skill development in both classroom and field-based settings. This supports broader ESP and instructional design literature emphasizing that systematic evaluation strengthens material relevance and sustainability in real learning contexts (Molenda, 2021; Fadlia et al., 2024).

Collectively, the findings confirm that integrating ESP principles with the ADDIE model provides a robust framework for developing disciplinespecific instructional materials in higher education. The study extends existing ESP research by addressing the underexplored context of physical education and sports, thereby contributing empirical evidence that ESP-based textbooks can be effectively designed for PJKR study program's students when grounded in needs analysis, systematic design, expert validation, and iterative evaluation. Consistent with recent ESP and ADDIE-based studies (Mubaroh et al., 2023; Rahmawati & Nugroho, 2024), this research highlights the value of learner-centered, context-sensitive material development for enhancing relevance, practicality, and instructional quality in ESP courses.

The summary of result and discussion is presented in the following table:

Table 1
Summary of Result and Discussion

ADDIE Stage	Focus of Stage	Key Findings	Evidence / Indicators	Outcome
Analysis	Needs analysis (target needs, learning needs, context, media preference)	Students strongly need sports-related terminology, instructional language, academic reading and writing skills. Prefer contextual, practice-based materials with visuals and digital support.	Questionnaire results showing needs in terminology, sports instructions, academic texts, contextual learning, visual aids, and flexible usage.	Empirical foundation established for ESP-based, contextual, and level-appropriate textbook development.
Design	Instructional blueprint development	Learning objectives aligned with CLOs and PJKR context. Theme-based units (sports communication, anatomy, coaching, injuries, etc.). Integrated four skills with task-based progression.	Structured unit organization; alignment between objectives, content, and instructional strategies; contextual and task-based framework.	Coherent instructional framework aligned with ESP principles and ADDIE model.
Development	Material production and expert validation	Contextualized materials integrating sports themes and communicative functions. Progressive activities from controlled to communicative tasks. Inclusion of visuals and glossary.	Expert validation results: Content relevance strong; linguistic accuracy high; instructional coherence confirmed. Revisions made based on feedback.	Textbook met pedagogical, linguistic, and disciplinary standards; ready for limited implementation.
Implementation	Limited try-out and practicality testing	Positive student and expert responses. Materials perceived as relevant, understandable, and supportive of learning needs.	Student feasibility: 78% (Feasible); Material expert: 74% (Feasible); Language expert: 82% (Very Feasible).	Textbook confirmed practical and suitable for use in PJKR English instruction.
Evaluation	Formative and summative evaluation	Continuous refinement improved clarity, sequencing, and visual presentation. Summative results confirmed effectiveness and relevance.	Positive validation results; minor revisions implemented; strong alignment with ESP and instructional design principles.	Textbook validated as effective, relevant, and appropriate for broader implementation.

CONCLUSIONS

This study concludes that the development of an ESP-based English textbook for the Physical Education, Health, and Recreation (PJKR) Study Program using the ADDIE model is effective, relevant, and pedagogically sound. Grounded in a comprehensive needs analysis and supported by systematic design, development, implementation, and evaluation processes, the textbook successfully addresses students' academic and professional language needs in sports and health contexts. Positive evaluations from both students and experts confirm the textbook's feasibility and instructional quality. Overall, the integration of ESP principles with the ADDIE model provides a robust framework for producing contextual, learner-centered instructional materials that enhance the relevance and effectiveness of English learning in higher education.

From a methodological perspective, this study also recognizes that needs analysis (NA), as a foundational component of ESP, inherently involves elements of subjectivity. Learners' self-reported perceptions of their needs, preferences, and proficiency levels may reflect personal beliefs, expectations, or limited awareness of future professional demands. As discussed in ESP scholarship, including Basturkmen (2025), needs are not purely objective realities but are socially constructed, context-bound, and sometimes influenced by learners' immediate experiences rather than long-term target-situation requirements. Therefore, relying solely on students' perceptions may risk partial or biased conclusions.

To reduce such potential bias, this study adopted several strategies to strengthen objectivity and credibility. First, triangulation was employed by combining multiple data sources, including student questionnaires, expert validation (language expert, material expert, and instructional media expert), and document analysis of Course Learning Outcomes (CLOs). Second, the integration of disciplinary expert feedback ensured that the identified needs were aligned not only with students' perceived needs but also with the actual communicative demands of the PJKR academic and professional context. Third, iterative revisions across the ADDIE stages functioned as a form of formative validation, allowing continuous refinement and reducing the influence of initial subjective assumptions.

By balancing learner perceptions with expert judgment and curricular alignment, the study enhances both the subjective relevance and the objective validity of the developed textbook. Consequently, the resulting ESP-based instructional material reflects a negotiated and evidence-informed understanding of learner needs, thereby increasing its pedagogical reliability and contextual appropriateness.

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