

Developing a Culturally Responsive Problem-Based Reading Instruction Model for Diverse EFL Learners in Higher Education

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ABSTRACT:

This study seeks to create and validate a Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) to enhance academic reading skills in higher education. The model was created utilizing a Research and Development (R&D) methodology informed by the ADDIE framework, which encompasses needs analysis, design, development, expert validation, and restricted field-testing phases. The requirements analysis indicated that students faced challenges in vocabulary acquisition, inferential understanding, and critical analysis of discipline-specific texts, along with a restricted capacity to relate reading materials to cultural settings. Informed by these findings, CR-PBRIM was developed by amalgamating Problem-Based Learning, Culturally Responsive Teaching, and disciplinary literacy into a cohesive educational framework. The model was subsequently validated by two professionals with Professor and PhD credentials and changed according to their suggestions. Restricted field testing demonstrated that the methodology is exceptionally practical and effective in improving student engagement, comprehension, and cultural interpretation in reading activities. The results demonstrate that CR-PBRIM is legitimate, practical, and practicable for application in academic reading instruction. Consequently, it is proposed as an alternate pedagogical strategy to enhance students' reading proficiency in higher education settings.

Keywords: Culturally responsive teaching; Problem-based learning; Reading instruction model; Academic reading; Higher education; Instructional design; R&D study.

Introduction

Reading competency is a multifaceted term that encompasses the interplay of language knowledge, cognitive processing, strategic reading behaviors, and social interpretation. In higher education, reading transcends a passive language skill; it is an essential academic competency that empowers students to obtain disciplinary knowledge, assess evidence, synthesize information, and engage in scholarly discourse (Alderson, 2000; Grabe, 2009; Sibarani, 2018; Muhria, et. al, 2025; Snow, 2002).

As universities place greater importance on critical thinking, problem-solving, and lifelong learning, students are anticipated to transcend mere literal comprehension and participate in advanced reading processes, such as analysis, evaluation, inference, and application of information. Reading proficiency is crucial for management students, as their academic and professional advancement relies significantly on the capacity to understand company reports, financial records, market analysis, organizational case studies, and scholarly literature.

Notwithstanding its importance, reading continues to be one of the most difficult academic skills for students in English as a Foreign Language (EFL) environment. Multiple studies indicate that university students struggle to comprehend academic literature due to restricted vocabulary knowledge, inadequate prior information, ineffective reading strategies, and minimal participation with reading activities. These obstacles are more intricate in higher education, as students must grasp advanced academic discourse and autonomously synthesize knowledge from several sources.

The enduring nature of these challenges indicates that reading difficulties cannot be attributed exclusively to linguistic factors. Modern literacy research increasingly acknowledges that reading comprehension is affected by a confluence of cognitive, social, cultural, and contextual elements that inform learners' interpretation of texts. From a sociocultural standpoint, understanding arises from the interactions of

readers, texts, and their cultural experiences (Vygotsky, 1978). Consequently, effective reading instruction must encompass language competency while acknowledging the varied cultural and educational backgrounds that students contribute to the classroom.

The increasing diversity of student demographics has emerged as a significant issue in modern higher education. Universities are increasingly catering to students from diverse language, cultural, social, and educational backgrounds, necessitating teaching methods that are both academically challenging and attuned to learner diversity. Recent evaluations of inclusive pedagogy in higher education suggest that significant learning transpires when instructional design deliberately fosters chances for involvement, belonging, and equal access to educational experiences (Jackson-Summers et al., 2024).

Culturally responsive pedagogy has evolved as a significant approach for addressing learner diversity and fostering educational justice (Paris & Amin, 2017). Culturally responsive pedagogy, as formulated by Ladson-Billings (2014), underscores the significance of linking academic instruction to students' cultural identities, community experiences, and sociocultural contexts. Gay (2018) contends that culturally responsive instruction leverages students' cultural knowledge, prior experiences, and performance styles to enhance the relevance and efficacy of learning. Similarly, Hammond (2015) emphasizes that culturally responsive teaching augments cognitive engagement by engaging students' pre-existing cultural schemas and fostering more robust linkages between new information and prior knowledge.

Recent evidence reinforces the significance of culturally responsive pedagogy in higher education. Quinlan et al. (2025) discovered that culturally responsive curricula enhance student engagement, academic involvement, and learning satisfaction. Kim (2024) underscores the growing significance of culturally and linguistically responsive teaching techniques in supporting diverse learners and promoting inclusive

educational settings.

Problem-Based Learning (PBL) has garnered considerable interest among active learning methodologies due to its capacity to enhance critical thinking, cooperation, self-directed learning, and genuine problem-solving abilities. Grounded on constructivist learning theory, Project-Based Learning (PBL) involves learners in the exploration of intricate and contextualized issues necessitating inquiry, analysis, discourse, and reflection (Barrows, 1986; Hmelo-Silver, 2004; Savery, 2015). Research has consistently shown the educational advantages of Problem-Based Learning across various fields. A comprehensive review by Guo et al. (2024) indicated that PBL enhances language development, learner engagement, communication skills, and higher-order thinking abilities. Aryanti et al. (2024) similarly recognized inquiry, cooperation, authentic problem-solving, and self-directed learning as fundamental mechanisms by which PBL improves English language learning outcomes.

While PBL establishes a robust basis for significant learning, its efficacy can be augmented when learning activities are embedded in culturally pertinent contexts. One method for attaining such relevance is by incorporating local knowledge into instructional design. Local wisdom comprises indigenous knowledge, cultural values, traditions, and social practices that have developed over centuries and persist in guiding communal life. Educational experts increasingly acknowledge local wisdom as a vital resource for contextualizing learning, fostering cultural understanding, and augmenting student participation.

On the Indonesian setting, education grounded on local wisdom has garnered heightened interest as educators endeavor to link academic content with students' sociocultural realities. Research indicates that incorporating local wisdom into educational activities enhances contextual comprehension, fortifies cultural identity, and facilitates significant knowledge building (Suastra, 2017; Parmin et al., 2020). Recent research indicates that local knowledge

enhances culturally responsive educational settings by allowing students to link disciplinary concepts with genuine community experiences.

Within Indonesia's varied cultural traditions, Minangkabau commercial acumen provides a notably pertinent framework for management education. The Minangkabau community is renowned for its entrepreneurial heritage and expansive trading networks, underpinned by qualities like as adaptation, resilience, integrity, teamwork, negotiation, and strategic decision-making. These values are significantly pertinent in modern corporate contexts and closely correspond with the competencies anticipated of management graduates. Incorporating Minangkabau trading principles into reading education creates chances to link academic literacy with genuine business activities and culturally significant experiences.

For management students, reading proficiency is intricately linked to the capacity to analyze information, assess evidence, recognize issues, and make informed judgments. Therefore, reading teaching must extend beyond language understanding to help foster the development of analytical and professional skills. Incorporating Minangkabau trading principles into reading activities allows students to interact with books that depict genuine entrepreneurial contexts while enhancing cultural knowledge. Such educational experiences may enhance engagement as students are prompted to relate academic knowledge to recognizable values and real-world circumstances.

Despite the increasing research on culturally responsive pedagogy, Problem-Based Learning, and education grounded on local wisdom, studies that integrate these three perspectives in reading teaching are still scarce. Current study has primarily investigated PBL concerning critical thinking, academic performance, and problem-solving abilities, whereas studies based on local wisdom have concentrated mainly on character education, environmental consciousness, and cultural preservation. Culturally responsive pedagogy has been extensively examined concerning inclusive

education and learner engagement; nevertheless, its implementation in reading instruction for management students in EFL higher education environments is yet little investigated.

Moreover, prior research has predominantly examined these methodologies in isolation, rather than establishing a cohesive instructional model that systematically incorporates culturally sensitive pedagogy, authentic problem-solving experiences, and local knowledge into reading instruction. This disparity is most pronounced in management education, where students are required to cultivate both academic literacy and professional skills. The lack of a cohesive instructional framework restricts the ability to develop learning environments that concurrently accommodate learner diversity, reading proficiency, critical thinking, and contextual significance.

This study proposes a Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) that incorporates Minangkabau trading expertise for management students in higher education to solve this gap. This study, following the ADDIE framework, examines the instructional demands of lecturers and students, formulates a culturally responsive reading instruction model based on authentic problem-solving experiences and local wisdom, and assesses its practicality through validation by experts and practitioners. The proposed model aims to enhance reading competence among diverse EFL learners in higher education by integrating culturally responsive pedagogy, Problem-Based Learning, and Minangkabau trading wisdom to develop inclusive, meaningful, and contextually relevant reading instruction.

The research theoretically advances the discourse on culturally responsive literacy training and contextualized learning in EFL higher education. It provides a framework that can aid educators in developing reading education that is more inclusive, engaging, and professionally pertinent. Ultimately, CR-PBRIM aims to cultivate proficient readers capable of critically analyzing academic texts while leveraging culturally rooted knowledge and genuine problem-solving

experiences.

Methodology

Research Design

This study utilized a Research and Development (R&D) methodology based on the ADDIE instructional design framework, comprising five iterative phases: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). The ADDIE framework was chosen for its methodical approach to generating, validating, and modifying educational products according to stated instructional requirements.

The research sought to create a Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) that incorporates Minangkabau trading expertise to improve reading proficiency among management students in higher education. This article examines the development and feasibility assessment of the model, encompassing needs analysis, model design, expert validation, and practitioner validation.

Research Context and Participants

The research was carried out in two Indonesian private higher education institutions that provide Management Study Programs, specifically ITB YAS and YARSI University. The selection of these universities was based on the significance of English reading courses in management education and initial findings indicating difficulties concerning students' reading proficiency, engagement, and contextual comprehension of academic literature.

Participants were recruited intentionally based on the objectives of each ADDIE phase. During the analytical phase, management students and faculty engaged in the needs assessment. The students supplied details concerning their target needs, learning requirements, reading challenges, preferred learning activities, and expectations for reading instruction. Instructors provided perspectives on pedagogical difficulties, classroom methodologies, and anticipated educational objectives.

The validation phase of the study included

expert validators and practitioner validators. Expert validators comprised specialists in English language instruction, instructional design, educational technology, and curriculum development. Practitioner validators were university instructors tasked with overseeing reading-related courses in higher education.

Analysis Phase

The analytical phase sought to ascertain the instructional requirements that would underpin the development of the CR-PBRIM.

Data were gathered using surveys, semi-structured interviews, classroom observations, and document analysis. Student questionnaires examined learners' target demands, learning requirements, reading difficulties, preferred instructional methods, and views on current reading instruction. Lecturer interviews examined pedagogical methods, obstacles in reading instruction, and anticipations for forthcoming instructional frameworks. Classroom observations and document analysis were performed to evaluate current teaching materials, lesson plans, and assessment methodologies.

The results of the needs analysis guided the development and design of the proposed instructional model.

Design Phase

The design phase concentrated on formulating the conceptual framework and instructional architecture of the CR-PBRIM. The methodology was theoretically grounded in three complimentary perspectives: culturally responsive pedagogy (Gay, 2018; Hammond, 2015), Problem-Based Learning (Barrows, 1986; Hmelo-Silver, 2004), and reading instruction theory (Grabe, 2009; Sibarani, 2018).

Furthermore, Minangkabau trading expertise was included as a contextual learning resource to augment cultural relevance and authenticity. The design approach culminated in the development of model components, encompassing instructional objectives, learning syntax, roles of lecturers and students, learning materials,

assessment procedures, and supplementary resources.

A basic prototype of the CR-PBRIM was then created for expert assessment.

Development Phase

In the development phase, the initial prototype was converted into a complete instructional package that included a model handbook, lecturer guidebook, learning materials, learning exercises, and evaluation tools.

The prototype was subjected to expert validation to evaluate its content validity, construct validity, instructional feasibility, cultural relevance, language suitability, and practical applicability. Expert validators assessed the model utilizing structured validation tools and offered qualitative suggestions for modification.

Expert validators' suggestions and recommendations were integrated into successive updates to enhance the model's quality and usability prior to implementation.

Implementation and Feasibility Evaluation

After revision, the validated prototype was assessed by practitioner validators to ascertain its viability for classroom deployment.

Practitioners evaluated the approach according to instructional clarity, practicality, alignment with learning objectives, assessment appropriateness, classroom application, and its capacity to improve student engagement and reading proficiency. Evaluation data were gathered through formal validation forms and open-ended feedback surveys.

The implementation phase concentrated on assessing the feasibility and practicality of the concept instead of evaluating instructional effectiveness. Practitioner feedback was utilized to enhance the final iteration of the CR-PBRIM.

Research Instruments

A variety of instruments were employed during the study to gather both quantitative and qualitative data.

Table 1. Research Instruments

Instruments	Purpose
Students Need Analysis Questionnaire	Identify student's target needs and learning needs
Lecturer Interview Guide	Explore instructional challenges and expectations
Observation Checklist	Examine existing classroom practices
Document Analysis Sheet	Review instructional materials and documents
Expert Validation Form	Evaluate model validity and quality
Practitioner Validation Form	Assess model feasibility and practicality

All instruments were created in accordance with the study's aim and pertinent theoretical framework.

Data Analysis

Quantitative data collected from surveys and

validation forms were evaluated by descriptive statistics, encompassing frequencies, percentages, means, and standard deviations.

The following interpretation criteria were established to assess the practicality of the developed model:

Table 2. Interpretation Criteria

Mean Score	Interpretation
4.21–5.00	Very Feasible
3.41–4.20	Feasible
2.61–3.40	Moderately Feasible
1.81–2.60	Less Feasible
1.00–1.80	Not Feasible

Qualitative data derived from interviews, observations, open-ended questionnaire responses, and validator comments were subjected to theme analysis. Emerging themes were classified and analyzed to enhance the quantitative results and inform model improvement.

The amalgamation of quantitative and qualitative

findings facilitated a thorough assessment of the generated model and substantiated evidence-based modifications during the development process.

Results.

Instructional Need Analysis

A needs analysis was performed to ascertain the

educational prerequisites for the creation of the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM). Data were gathered from 50 management students enrolled at two private higher education institutions in Indonesia: ITB YAS ($n = 23$) and YARSI University ($n = 27$). Moreover, interviews were held with three instructors overseeing English and reading classes. Data were collected via questionnaires and semi-structured interviews to examine students' and lecturers' perspectives of current reading instruction, learning obstacles, and expectations for future instructional methodologies.

The results indicated that a significant proportion of pupils 78% faced numerous challenges in comprehending English academic materials. A prevalent problem mentioned was insufficient vocabulary knowledge, especially for technical and discipline-specific language typically seen in management and business literature, as indicated by 82% of respondents. Students reported that new terminology frequently obstructed their comprehension of essential concepts and hindered their capacity to process information effectively. This research indicates that vocabulary knowledge is a crucial determinant of reading comprehension in higher education, particularly in fields that depend significantly on specialist terminology.

Alongside vocabulary-related obstacles, about 70% of students indicated difficulties in drawing conclusions and deciphering implicit information in academic texts. While numerous students could discern explicit information, they often encountered difficulties in inferring meanings, establishing connections between concepts, and deriving inferences from textual evidence. These challenges suggest that pupils' reading proficiency primarily on literal comprehension, whereas higher-order reading skills were inadequately developed. These findings align with other research indicating that EFL learners frequently encounter difficulties in the inferential and analytical reading processes necessary for academic contexts.

The requirements analysis identified difficulty in

critical reading, with around 74% of students indicating difficulties in evaluating arguments, assessing information credibility, comparing diverse viewpoints, and developing evidence-based conclusions. Considering the escalating requirements of higher education for critical thinking and autonomous learning, these findings indicate the imperative for instructional methods that actively involve students in analytical and evaluative reading tasks, rather than merely concentrating on textual comprehension.

An additional significant discovery pertained to the characteristics of the reading materials employed in current training. 80% of students believed that several reading materials were inadequately aligned with their academic fields and prospective professional requirements. During reading tasks centered on general English texts, students indicated a preference for items pertaining to business, entrepreneurship, management techniques, organizational matters, and practical professional contexts. They stated that discipline-specific resources will augment their motivation, aid comprehension, and boost the perceived utility of reading activities.

The interview data indicated that students anticipated reading education to be more participatory, collaborative, and problem-focused. 76% of participants favored educational experiences that facilitated concept discussion, actual problem-solving, perspective sharing, and the connection of reading materials to real-life contexts. These preferences indicate the necessity for student-centered educational methods that foster active involvement and significant knowledge building.

The lecturer's viewpoints predominantly validated the difficulties recognized by pupils. The three interviewed lecturers indicated that reading teaching was often defined by teacher-centered practices, wherein lecturers predominantly explained textual content while students engaged in relatively passive roles throughout classroom activities. These instructional techniques restricted students' abilities to actively engage with texts, partake in conversations, and cultivate higher-order reading skills.

The instructors additionally indicated a deficiency of contextualized instructional resources tailored for management students. Current reading materials predominantly originate from standard English textbooks and frequently do not align with students' discipline backgrounds, professional aspirations, or future occupational requirements. As a result, students often saw reading activities as unrelated to their academic and professional objectives.

Moreover, the lecturer highlighted the lack of integration of local wisdom in reading training. Despite the significant educational potential of local cultural values for fostering contextualized and meaningful learning experiences, these resources have seldom been integrated into current reading materials and classroom activities.

Another concern raised by the instructors was the absence of a comprehensive instructional strategy tailored to enhance reading competency among management students. Current instructional methods predominantly depend on solitary teaching strategies instead of a cohesive pedagogical framework that incorporates reading theory, learner engagement, contextual learning, and higher-order cognitive skills.

The results of the needs analysis reveal a significant requirement for an instructional paradigm that accommodates both academic literacy expectations and learner variety. Students need assistance in enhancing vocabulary acquisition, inferential understanding, critical reading abilities, and disciplinary literacy, whereas lecturers necessitate a systematic instructional framework that fosters active learning and contextual significance. The findings established the empirical basis for the creation of the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM), which amalgamates culturally responsive pedagogy, Problem-Based Learning principles, and Minangkabau trading wisdom to enhance the significance, inclusivity, and contextual relevance of reading instruction for management students in higher education.

Development of the CR-PBRIM

Conceptual Foundation

The Culturally sensitive Problem-Based Reading Instruction Model (CR-PBRIM) is founded on the synthesis of three interconnected theoretical frameworks: Problem-Based Learning (PBL), culturally sensitive pedagogy, and disciplinary literacy in English reading. Instead of operating as distinct frameworks, these three views are integrated to provide a contextual and meaning-focused reading instruction approach for higher education students in management studies.

Problem-Based Learning (PBL) constitutes the pedagogical foundation of CR-PBRIM by prioritizing student-centered education via genuine problem-solving tasks. In this paradigm, learners participate in inquiry, cooperation, and knowledge production, fostering higher-order thinking skills like inference, analysis, and evaluation in reading comprehension. This corresponds with the necessity for pupils to progress from mere literal understanding to critical interaction with academic literature.

Culturally responsive pedagogy enhances the paradigm by recognizing students' sociocultural backgrounds as vital educational assets. In CR-PBRIM, Minangkabau trading wisdom is methodically incorporated into reading activities to connect academic books with students' real-life experiences. This contextualization aims to improve learner engagement, facilitate meaning-making processes, and increase the relevance of reading content in academic environments.

The third basis, disciplinary literacy, underscores the necessity for students to comprehend and analyze texts within certain academic disciplines. Management students must possess the capability to understand business texts that feature specialized terminology, intellectual complexity, and professional discourse frameworks. By integrating disciplinary literacy, CR-PBRIM guarantees that reading instruction is not solely focused on general comprehension but also tailored to the specific literacy requirements of many domains.

The amalgamation of these three frameworks

produces a synergistic instructional design wherein Project-Based Learning fosters cognitive engagement, culturally responsive pedagogy guarantees contextual relevance, and disciplinary literacy imparts domain-specific reading proficiency. Collectively, these components establish the foundational framework of CR-PBRIM as a systematic, contextual, and inquiry-based reading instruction model aimed at improving students' academic reading proficiency in higher education.

Model Component

The CR-PBRIM model's development yields a collection of interconnected instructional elements systematically derived from theoretical principles and practical evidence. Table 3 delineates the fundamental components of CR-PBRIM, accompanied by their theoretical foundations and empirical validation derived from the requirements analysis. This mapping demonstrates the correlation between educational theory, cultural integration, and students' reading challenges in academic settings.

Table 3. Sociodemographic characterization of the sample by frequency of the Program.

Model Component	Description	Theoretical Foundation	Empirical Basis (Need Analysis)
Contextual Problem Component	Presents authentic discipline-based problems integrated with local cultural context	Problem-Based Learning (Barrows, 1986; Schmidt, 1993)	Students struggle with understanding discipline-specific academic texts
Cultural Integration Component	Embeds local wisdom (e.g., Minangkabau values) into reading materials and interpretation	Culturally Responsive Teaching (Gay, 2010; Ladson-Billings, 2014)	Students show low engagement and limited cultural connection to texts
Problem-Based Inquiry Component	Guides students through structured inquiry: identifying, analyzing, and solving reading problems	Constructivism (Vygotsky, 1978; Jonassen, 1999)	Students have difficulty in inferential and critical comprehension
Collaborative Discourse Component	Promotes group discussion and meaning negotiation during reading tasks	Social Interactionism (Vygotsky, 1978)	Students lack confidence in interpreting academic texts individually
Reading Strategy Scaffolding Component	Explicit instruction of reading strategies (predicting, inferring, summarizing)	Cognitive & Metacognitive Reading Theory (Alderson, 2000; Pressley, 2002)	Students are weak in strategy use during academic reading
Assessment Component	Combines formative and summative assessment of reading and problem-solving tasks	Authentic Assessment Theory (Wiggins, 1998)	Assessment currently focuses only on final test scores

Table 3 illustrates that the CR-PBRIM approach exhibits a robust integration of three complementing domains: problem-based pedagogy, culturally responsive instruction, and cognitive reading methods. The mapping demonstrates that each component is

purposefully designed to address specific student requirements, particularly in inferential understanding, vocabulary acquisition, and disciplinary reading difficulties. This alignment signifies that the model is both theoretically sound and practically validated, hence ensuring its

applicability in higher level reading instruction.

Theoretical Mapping of the CR-PBRIM

The CR-PBRIM model is theoretically based on the synthesis of three principal strands of educational thought. Initially, Problem-Based Learning (PBL) establishes an educational framework that prioritizes student-centered inquiry, problem-solving, and knowledge production via authentic problems (Barrows, 1986; Schmidt, 1993). Secondly, Culturally Responsive Teaching (CRT) aligns educational

resources and methodologies with students' cultural backgrounds, hence enhancing engagement and understanding (Gay, 2010; Ladson-Billings, 2014). Cognitive and metacognitive reading theories facilitate the cultivation of strategic reading skills essential for academic literacy

(Alderson, 2000; Pressley, 2002). The three theoretical pillars combine to create a cohesive instructional paradigm where reading is both a cognitive process and a cultural, problem-solving activity embedded in genuine academic contexts.

Table 4. Component Justification Matrix (CR-PBRIM Logic Model)

Model Element	Input (Why Needed)	Process (What Happen)	Output (Expected Result)
Contextual Problem	Students lack engagement with generic texts	Present discipline-based real-world problems	Increased relevance and reading motivation
Cultural Integration	Low cultural connection to academic texts	Embed local wisdom into reading materials	Higher interpretive depth and meaning-making
Problem-Based Inquiry	Weak inferential and critical comprehension	Structured reading inquiry cycle	Improved analytical reading skills
Collaborative Discourse	Limited independent comprehension ability	Group discussion and negotiation of meaning	Enhanced comprehension through social learning
Strategy Scaffolding	Lack of reading strategy awareness	Explicit teaching of reading strategies	Improved strategic reading behavior
Assessment Component	Over-reliance on summative testing	Authentic formative + performance-based assessment	Holistic evaluation of reading competence

The primary contribution of CR-PBRIM is its integrated framework that situates reading as a culturally contextualized problem-solving endeavor. In contrast to traditional reading education approaches that treat comprehension as a separate cognitive ability, CR-PBRIM integrates

Model Syntax of CR-PBRIM

The Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) features a cyclical instructional sequence that amalgamates Problem-Based Learning, culturally responsive

cultural interpretation and disciplinary investigation into the reading process. This integration enhances student engagement while concurrently cultivating advanced reading skills necessary for academic settings.

pedagogy, and academic reading methodologies. The syntax highlights the gradual cognitive involvement from contextual understanding to critical analysis and problem-solving in reading tasks.

Table 5. Model Syntax of CR-PBRIM

Phase	Instructional Activities	Teacher Role	Student Role	Theoretical Basis
Contextual Orientation	Teacher presents a discipline-based reading text embedded with real-world and cultural context problems	Facilitator, contextualizer	Engage with text and activate prior knowledge	PBL (Barrows, 1986); Schema Theory
Problem Identification & Cultural Activation	Students identify key issues and connect them with local wisdom and prior experiences	Guide questioning, stimulate cultural linkage	Identify problems, activate cultural schemata	Culturally Responsive Teaching (Gay, 2010)
Reading Exploration & Inquiry	Students conduct intensive reading to locate information, clarify vocabulary, and analyze text structure	Scaffolder of reading strategies	Extract, analyze, and interpret information	Cognitive Reading Theory (Alderson, 2000)
Collaborative Meaning Negotiation	Students discuss interpretations and compare perspectives in groups	Facilitator of discussion	Negotiate meaning, justify interpretations	Social Constructivism (Vygotsky, 1978)
Solution Construction & Critical Response	Students formulate solutions or critical responses based on textual evidence	Critical feedback provider	Develop arguments and solutions	Higher-order thinking (Bloom's taxonomy)
Reflection & Knowledge Internalization	Students reflect on reading process, strategies, and cultural insights	Reflective coach	Self-evaluate and internalize learning	Metacognitive Theory (Flavell, 1979)

The instructional syntax of CR-PBRIM is structured as a cognitively progressive cycle rather than a linear sequence, facilitating students' transition from contextual comprehension to critical analysis and problem-solving. The approach commences with contextual orientation, wherein students engage with genuine discipline-specific texts that incorporate culturally pertinent problems. This phase is crucial for eliciting past information and establishing the relevance of learning.

Students thereafter participate in problem identification and cultural activation, interpreting reading materials from the perspective of local wisdom, thus enhancing culturally contextualized meaning-making. The learning process next advances to reading exploration and inquiry, wherein students employ cognitive reading skills

to extract and analyze textual material.

The phase of collaborative meaning negotiation facilitates the social building of knowledge by conversation and the exchange of perspectives, hence enhancing understanding through interaction. This is succeeded by solution formulation, wherein students generate analytical responses based on textual evidence and disciplinary rationale. Ultimately, reflection enables students to assess their reading practices and assimilate both cognitive and cultural learning outcomes, so fostering metacognitive awareness.

Prototype Development

The preliminary prototype of the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) was created using an iterative design process informed by the ADDIE

framework (Analysis, Design, Development, Implementation, and Evaluation). This methodical approach guaranteed that the model was based on empirical evidence, educational theory, and instructional practicality.

During the analysis phase, classroom observations, document analysis, and needs assessments indicated that students had considerable challenges in vocabulary acquisition, inferential comprehension, and critical reading of discipline-specific academic literature. Furthermore, students exhibited a constrained capacity to relate reading materials to their cultural knowledge and academic environment, signifying a necessity for a holistic instructional strategy.

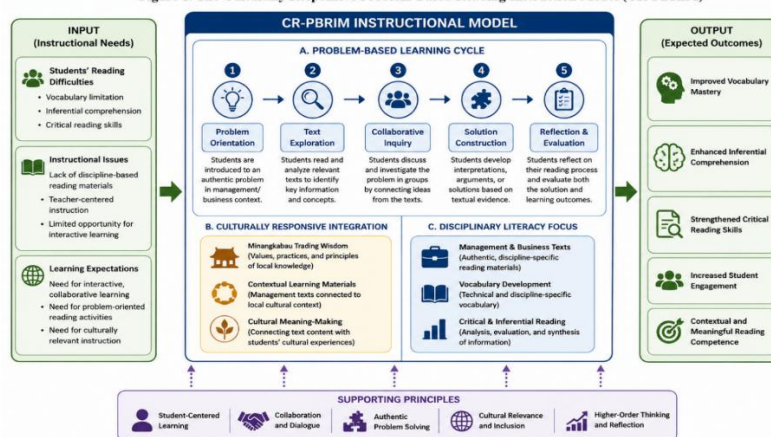
In the design phase, the conceptual framework of CR-PBRIM was developed by amalgamating Problem-Based Learning (PBL), Culturally Responsive Teaching (CRT), and concepts of disciplinary literacy into a cohesive instructional model. This phase generated the foundational framework of learning objectives, instructional methodologies, educational activities, and evaluative procedures, all designed to enhance advanced reading competencies and culturally relevant learning experiences.

During the development phase, the prototype was transformed into tangible instructional elements, comprising learning modules, reading assignments, issue scenarios, and evaluation tools. The components were rigorously tested by specialists in English language education and instructional design to guarantee content validity, pedagogical suitability, and cultural relevance. Modifications were implemented in response to expert comments, namely with the clarity of problem scenarios, congruence with students' cultural contexts, and the control of cognitive load in reading assignments.

The prototype prioritizes a student-centered and inquiry-based reading environment, where reading is viewed not just as text comprehension, but as an active process of meaning-making through problem-solving, cultural interpretation, and collaborative dialogue. This design situates reading as a cognitive and socio-cultural activity inside academic settings.

The prototype was ultimately produced for restricted field testing to assess its practicality, feasibility, and initial effectiveness. The results of this phase are anticipated to guide the subsequent enhancement of the model prior to progressing towards a more robust and proven instructional design.

Figure 1. The Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM)



Note: CR-PBRIM = Culturally Responsive Problem-Based Reading Instruction Model.

Expert Validation

Subsequent to the creation of the preliminary CR-PBRIM prototype, an expert validation phase was undertaken to assess the model's validity and

feasibility prior to its deployment in a restricted field-testing phase. This phase is crucial to confirm that the constructed instructional model is pedagogically valid, culturally suitable, and consistent with the tenets of problem-based and

reading instruction in higher education.

Expert validation was conducted to assess the content relevancy, instructional design, and cultural integration of the CR-PBRIM prototype. The validation included two specialists in English language education, both with Professor and PhD

credentials, specializing in reading instruction, curriculum design, and instructional model building. The validation instrument evaluated three primary dimensions: content relevance, instructional design, and cultural integration. The findings of the expert assessment are displayed in Table 6.

Table 6. Expert Validation Result

Aspect	Score	Category
Content Relevance	86	Very Valid
Instructional Design	84	Very Valid
Cultural Integration	88	Very Valid
Mean Score	86	Very Valid

Expert validation results demonstrate that the CR-PBRIM prototype exhibits good validity across all evaluated dimensions. This indicates that the paradigm possesses robust theoretical coherence and practical viability for facilitating academic reading instruction in higher education settings. Despite the overall evaluation results being classified as “very valid,” the experts offered numerous constructive recommendations for improvement. This include enhancing the clarity of problem scenarios, streamlining instructional language to alleviate cognitive burden, and reinforcing the explicit connection between cultural values and reading interpretation tasks. The improvements were integrated into the prototype to improve its clarity, usability, and instructional efficacy.

The validation results indicate that the CR-PBRIM is prepared to advance to the limited field-testing phase with minor modifications, confirming its suitability for application in actual classroom environments.

Limited Field Testing

Subsequent to the development of the CR-PBRIM informed by expert validation comments, a constrained field test was executed to assess the feasibility and initial efficacy of the model inside a real classroom environment. This phase sought to assess the model's performance in authentic instructional settings, specifically in enhancing students' academic reading abilities inside higher education environments.

The restricted field testing was conducted in a Reading course with a small cohort of undergraduate students in the Management program. The execution adhered to the procedural framework of CR-PBRIM, encompassing contextual orientation, problem identification, reading inquiry, collaborative discussion, solution formulation, and reflection phases.

Data were gathered by classroom observation, student response surveys, and field notes. The outcomes of the practicality assessment are displayed in Table 7.

Table 7. Practicality and Student Response to CR-PBRIM

Aspect	Score	Category
Ease of implementation	87	Very practical
Student engagement	89	Very high
Instructional clarity	85	Very clear
Learning usefulness	90	Very useful
Mean Score	86	Very practical

The findings from the restricted field testing suggest that the CR-PBRIM is exceptionally suitable for classroom application. Students indicated elevated participation during reading activities, especially in problem-based discussions and cultural interpretation assignments. The instructional processes were seen as simple and straightforward, facilitating student engagement in reading comprehension activities.

Observational results indicated that students exhibited heightened interaction, enhanced engagement in group discussions, and a better capacity to relate reading materials to both disciplinary knowledge and cultural comprehension. The findings indicate that the model enhances understanding and fosters greater engagement with academic literature.

The CR-PBRIM exhibits significant practicality and promising initial efficacy in facilitating academic reading instruction. The findings suggest that the model is viable for wider use, contingent upon additional development and extensive testing in bigger educational environments.

Final Model of CR-PBRIM

Following expert validation and restricted field testing, the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) was finalized as a new instructional framework for

academic reading in higher education. The iterative process of development, validation, and classroom testing confirmed that the model is theoretically robust, empirically substantiated, and practically viable.

The final CR-PBRIM amalgamates Problem-Based Learning, Culturally Responsive Teaching, and disciplinary literacy into a cohesive instructional framework that regards reading as a process of inquiry, interpretation, and culturally contextualized meaning-making. The paradigm comprises six interrelated components: contextual problem orientation, cultural integration, problem-based inquiry, collaborative meaning negotiation, reading strategy scaffolding, and reflective assessment.

The implementation findings demonstrate that the model is legitimate, practical, and practicable for application in academic reading education. Incorporated revisions based on expert comments and field-testing findings to enhance the clarity of teaching processes, strengthen the integration of cultural elements, and boost student involvement in reading activities.

The definitive iteration of CR-PBRIM is delineated as an all-encompassing instructional framework that enhances students' academic reading proficiency via an integrated methodology encompassing cognitive, social, and cultural facets of learning.

Discussion

This study's findings indicate that the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) is a theoretically sound and empirically validated instructional framework that improves academic reading instruction in higher education. The development process, encompassing needs analysis, model creation, expert validation, and restricted field testing, substantiates that the model is both valid and feasible for classroom use.

The efficacy of CR-PBRIM is attributable to its amalgamation of Problem-Based Learning (PBL), Culturally Responsive Teaching (CRT), and disciplinary literacy. Employing genuine, discipline-specific questions allows students to participate in significant inquiry processes, aligning with the tenets of Problem-Based Learning (PBL) that prioritize learning via problem-solving and knowledge creation (Barrows, 1986; Schmidt, 1993). This discovery corroborates other research demonstrating that problem-centered instruction improves students' critical reading and analytical thinking abilities.

The integration of culturally relevant aspects significantly enhances student engagement and comprehension. Integrating local wisdom into reading materials and assignments enables students to link academic texts with their cultural heritage, so enhancing comprehension. This corresponds with the principles of Culturally Responsive Teaching, which underscores the significance of cultural relevance in enhancing educational outcomes (Gay, 2010; Ladson-Billings, 1995). The current findings enhance this theory by illustrating its relevance in academic reading teaching within higher education, especially in discipline-specific settings.

Moreover, the paradigm facilitates the advancement of reading strategies via organized scaffolding and cooperative dialogue. The field-testing results demonstrate that students exhibited

increased engagement in text interpretation, meaning negotiation during group discussions, and the application of reading methods, including inference and summary. This aligns with cognitive and metacognitive reading theories that emphasize the significance of strategy utilization in comprehension (Alderson, 2000; Pressley, 2002).

The innovation of CR-PBRIM is in its cohesive framework, which situates reading as a culturally contextualized problem-solving endeavor. In contrast to traditional reading education approaches that focus mostly on text comprehension, CR-PBRIM integrates cognitive, social, and cultural aspects into a cohesive instructional cycle. This integration fosters the advancement of a more comprehensive reading pedagogy, especially pertinent for students in discipline-specific academic programs like management studies.

Conclusions

This research has effectively created and validated the Culturally Responsive Problem-Based Reading Instruction Model (CR-PBRIM) for academic reading instruction in higher education via a research and development process that included needs analysis, model design, expert validation, and limited field testing. The results demonstrate that the model is legitimate, practical, and realistic for implementation in reading classrooms, since it successfully blends Problem-Based Learning, Culturally Responsive Teaching, and disciplinary literacy into a cohesive instructional framework. CR-PBRIM not only bolsters students' reading comprehension and critical thinking abilities but also augments their capacity to relate academic texts to cultural significances, so rendering reading a more significant and contextualized educational experience. Consequently, the approach is seen as a promising pedagogical alternative for enhancing academic reading instruction in higher education, especially within discipline-specific programs.

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