



LANGUAGE BARRIERS AND ADAPTATION STRATEGIES AMONG AETA COLLEGE STUDENTS IN ENGLISH- DOMINANT HIGHER EDUCATION

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ABSTRACT

The increasing participation of Indigenous students in higher education highlights the need for inclusive, equitable, and culturally responsive learning environments. Among Indigenous learners in the Philippines, Aeta college students may experience linguistic, cultural, and institutional challenges while navigating English-dominant higher education contexts. Although scholarship on Indigenous education has expanded, limited research has synthesized how language barriers, adaptation strategies, and institutional conditions collectively shape the educational experiences of Aeta learners. This conceptual review synthesizes and critically analyzes contemporary and foundational literature on language barriers, student adaptation, and inclusive higher education practices relevant to Aeta college students. A conceptual literature review approach was employed, with relevant peer-reviewed studies identified through searches of major academic databases, including Scopus, Web of Science, ERIC, Google Scholar, SpringerLink, ScienceDirect, Taylor & Francis Online, and Wiley Online Library. The selected literature was analyzed through thematic synthesis, generating four major themes: (1) language barriers among Indigenous students in higher education, (2) adaptation strategies of Indigenous students in English-dominant higher education, (3) institutional support for inclusive higher education, and (4) conceptual foundations for an inclusive higher education framework. Based on the synthesis, the review proposes an Inclusive Higher Education Framework for Aeta College Students consisting of six interrelated bases: linguistic inclusivity, culturally responsive pedagogy, faculty development and language-sensitive teaching, comprehensive institutional support services, community engagement and Indigenous partnerships, and policy and curriculum integration. The framework emphasizes that meaningful inclusion requires coordinated institutional efforts that recognize Indigenous linguistic and cultural resources as strengths rather than deficits. This review provides a

conceptual foundation for higher education institutions, educators, policymakers, and researchers seeking to advance more equitable, culturally responsive, and linguistically inclusive educational environments for Indigenous learners.

Keywords: *Aeta college students; Indigenous students; language barriers; adaptation strategies; inclusive higher education; culturally responsive pedagogy; English-dominant higher education.*

INTRODUCTION

Inclusive higher education has emerged as a global priority as universities strive to provide equitable learning opportunities for students from diverse linguistic, cultural, and socioeconomic backgrounds. Consistent with UNESCO's Education 2030 agenda and Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education for all learners, higher education institutions are increasingly expected to develop environments that recognize and respond to diverse learner backgrounds (UNESCO, 2015). Contemporary educational reforms emphasize that expanding access to higher education alone is insufficient; institutions must also establish academic, linguistic, and psychosocial support systems that enable students from historically marginalized communities to participate fully and succeed in tertiary education. Accordingly, scholarship on culturally responsive education highlights the importance of institutional policies and teaching practices that acknowledge students' linguistic and cultural identities while addressing their diverse educational needs (Gay, 2018; Panganiban-Lualhati & Panganiban, 2026).

Despite these developments, Indigenous students continue to experience persistent educational inequities within higher education systems. Although access to university education has gradually expanded, Indigenous learners frequently encounter structural, cultural, and linguistic barriers that influence their academic participation, persistence, and sense of belonging. Research across mainstream universities demonstrates that Indigenous students may experience discrimination related to language, cultural identity, socioeconomic background, and place of origin, which can negatively affect their engagement and connection to academic institutions (Pérez-Castro et al., 2025). These findings suggest that successful participation in higher education depends not only on students' individual capabilities but also on institutional environments that recognize Indigenous identities and provide meaningful academic and social support (Silva & Pavez, 2026).

Among the factors shaping Indigenous students' educational experiences, language remains a significant consideration. In many higher education contexts, English functions as the dominant language of instruction, academic communication, assessment, and knowledge production. While English proficiency provides access to global scholarship and broader academic opportunities, English-dominant environments may create challenges for students whose linguistic backgrounds differ from those privileged within mainstream academic systems. These challenges may influence academic writing, classroom participation, communication with faculty members,

research engagement, and students' confidence in navigating university life. Recent studies indicate that language and cultural factors significantly shape academic adjustment, communication, and social integration among culturally and linguistically diverse learners (Singh & Jack, 2022; Hanna et al., 2026). Thus, addressing language-related challenges requires institutional approaches that extend beyond language remediation and incorporate culturally responsive and inclusive educational practices.

For Indigenous learners, language challenges are closely connected with cultural identity and educational belonging. Entering higher education often requires students to negotiate between the knowledge systems, languages, and values of their communities and the academic expectations of mainstream institutions. Indigenous students' ability to participate successfully in university life is therefore influenced not only by their individual adaptation but also by whether institutions recognize and support their cultural identities. Culturally responsive approaches that integrate learners' backgrounds, experiences, and knowledge systems have been shown to enhance engagement and educational participation (García-Silva et al., 2026). However, implementing such approaches requires sustained institutional commitment, faculty preparation, and supportive policies, as universities continue to encounter challenges related to limited professional development and inconsistent implementation of culturally responsive practices (Panganiban-Lualhati & Panganiban, 2026).

Within the Philippine higher education context, the educational experiences of Aeta college students remain insufficiently represented in scholarly literature. Existing studies have highlighted the importance of family, school, and community support in promoting educational outcomes among Aeta learners (Regaspi, 2025). However, limited research has specifically examined how language barriers, adaptation strategies, and institutional support mechanisms influence the experiences of Aeta students within English-dominant higher education environments. Although international studies provide valuable insights into Indigenous education, their findings cannot be assumed to fully represent the unique linguistic, cultural, and institutional realities of Aeta learners in the Philippines.

Addressing this gap is important because Philippine higher education institutions continue to strengthen commitments toward educational equity, Indigenous Peoples' rights, and inclusive learning environments. While existing scholarship has examined Indigenous education, language learning, culturally responsive pedagogy, and institutional support, these areas have often been investigated separately. Limited research has integrated these dimensions to explain how language barriers, student adaptation strategies, and institutional conditions interact to shape the educational experiences of Aeta college students. This fragmentation limits the development of comprehensive conceptual guidance for institutions seeking to establish linguistically inclusive, culturally responsive, and equitable higher education practices.

Therefore, this conceptual review synthesizes and critically analyzes existing literature on language barriers, adaptation strategies, and institutional support relevant to Aeta college students in English-dominant higher education. Through thematic synthesis of contemporary and foundational scholarship, the review develops an Inclusive Higher Education Framework that integrates linguistic inclusivity, culturally responsive

pedagogy, faculty development and language-sensitive teaching, comprehensive institutional support services, community engagement and Indigenous partnerships, and policy and curriculum integration. By providing this conceptual foundation, the review contributes to ongoing discussions on inclusive higher education and offers guidance for institutions, educators, policymakers, and researchers seeking to advance equitable and culturally responsive learning environments for Aeta students and other Indigenous learners in multilingual higher education contexts.

Research Questions

This conceptual review sought to answer the following research questions:

1. What language barriers are experienced by Indigenous and Aeta college students in English-dominant higher education?
2. What adaptation strategies are reported in the literature?
3. What institutional practices support inclusive higher education for Indigenous learners?
4. How can existing literature be synthesized to develop an Inclusive Higher Education Framework for Aeta college students?

METHODOLOGY

Research Design

This study employed a conceptual literature review to synthesize existing scholarly literature on the language barriers and adaptation strategies of Indigenous learners, particularly Aeta college students, in English-dominant higher education. Rather than collecting primary data from participants, the study analyzed and synthesized published scholarly literature to develop a conceptual framework for inclusive higher education.

Given the fragmented nature of the literature on Indigenous learners and the limited scholarship specifically addressing Aeta college students in Philippine higher education, a conceptual literature review was considered an appropriate approach for developing a comprehensive understanding of the linguistic, cultural, and institutional factors shaping their educational experiences. The review focused on synthesizing concepts, theoretical perspectives, and evidence from existing scholarly sources to identify recurring themes and establish literature-based conceptual foundations that may inform more inclusive and culturally responsive higher education policies and practices.

Literature search and selection process

A literature search was conducted using major academic databases and scholarly search engines, including Scopus, Web of Science, ERIC, Google Scholar, SpringerLink, ScienceDirect, Taylor & Francis Online, and Wiley Online Library. The search focused primarily on recent peer-reviewed scholarly publications addressing Indigenous education, language learning, inclusive higher education, and culturally responsive pedagogy. Foundational theoretical and conceptual works were also included when they

provided important perspectives relevant to the objectives of the review.

The search strategy combined a range of keywords related to the topic using Boolean operators (AND, OR) to retrieve relevant literature across the selected databases. Search terms included *Aeta college students*, *Aeta students*, *Indigenous students*, *Indigenous university students*, *higher education*, *Indigenous higher education*, *language barriers*, *English as a medium of instruction*, *English-dominant higher education*, *adaptation strategies*, *inclusive education*, *linguistic diversity*, *Indigenous education*, and *culturally responsive pedagogy*. These search strings were modified as necessary to align with the indexing systems and search functionalities of individual databases. To broaden the coverage of relevant evidence, the reference lists of eligible publications were also reviewed manually to locate additional studies that informed the conceptual synthesis. Studies were included in the review if they:

- focused on Indigenous students or culturally and linguistically diverse learners in higher education contexts, particularly studies addressing linguistic, cultural, or institutional experiences;
- examined language barriers, adaptation strategies, culturally responsive pedagogy, institutional support, or inclusive education; were published in peer-reviewed journals or recognized scholarly publications;
- were written in English; and reported empirical or conceptual findings relevant to higher education contexts. Studies were excluded if they:
 - focused exclusively on elementary or secondary education;
 - discussed Indigenous communities without addressing educational experiences in higher education;
 - lacked sufficient methodological or conceptual information; or
 - were editorials, opinion papers, conference abstracts, unpublished manuscripts, or other sources without sufficient scholarly basis.

Retrieved publications were screened based on their titles and abstracts to determine their relevance to the objectives of the review. Potentially eligible studies subsequently underwent full-text assessment using the predetermined inclusion and exclusion criteria. Throughout the selection process, emphasis was placed on each study's relevance, methodological rigor, and conceptual contribution to understanding the language-related experiences of Indigenous students in higher education.

Because this study employed a conceptual literature review approach, the selection process prioritized conceptual relevance and contribution to theory development rather than statistical aggregation of findings. Table 1 presents the key studies that most directly informed the conceptual synthesis. Although additional scholarly sources were consulted throughout the review to provide broader theoretical and contextual support, only the most conceptually relevant studies were included in the summary table to illustrate the principal evidence underpinning the proposed framework.

Thematic Synthesis and Data Analysis

The selected literature was analyzed using thematic synthesis, a qualitative

analytical approach commonly used in conceptual literature reviews to identify, compare, and integrate recurring concepts across published studies. This approach was selected because the purpose of the review was not to statistically aggregate findings but to develop an integrated conceptual understanding of the relationships among language barriers, adaptation strategies, institutional support, and inclusive higher education practices affecting Indigenous learners.

Following repeated readings of the selected publications, relevant findings were extracted and subjected to thematic coding to identify recurring concepts related to linguistic challenges, academic adaptation, culturally responsive pedagogy, institutional support mechanisms, and inclusive educational practices. Similar codes were then grouped into broader conceptual categories and refined through iterative comparison to establish coherent themes representing shared patterns across the reviewed literature. The thematic synthesis generated four major themes that guided the interpretation and organization of the reviewed evidence:

- (1) language barriers among Indigenous students in higher education;
- (2) adaptation strategies of Indigenous students in English-dominant higher education;
- (3) institutional support for inclusive higher education; and
- (4) conceptual synthesis toward the Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education.

These themes served as the analytical foundation for synthesizing the literature and developing the proposed Six Interrelated Bases for Inclusive Higher Education for Aeta College Students in English-Dominant Higher Education.

The key studies that most directly informed the conceptual synthesis are summarized in Table 1. These studies represent the primary evidence base used to develop the proposed framework, while additional theoretical and contextual references were integrated throughout the discussion to provide broader conceptual support.

Table 1. Summary of the Key Studies Informing the Conceptual Synthesis

Author(s) and Year	Country	Research Focus	Methodology	Key Findings	Relevance to the Present Review	Theme
Regaspi (2025)	Philippines	Parental involvement and educational outcomes among Aeta Indigenous learners	Quantitative descriptive study	Parental involvement, school support, and community engagement positively influenced the educational outcomes of Aeta learners.	Demonstrates the importance of family, school, and community support in promoting the educational success of Aeta learners.	Institutional support and inclusive higher education
Pérez-Castro, Santana Colín, &	Mexico	Experiences of discrimination among	Collaborative ethnography	Indigenous students experienced institutional and cultural	Highlights how language and cultural discrimination	Language barriers among Indigenous

Donnelly (2025)		Indigenous students in mainstream universities		discrimination associated with language, place of origin, socioeconomic status, clothing, and Indigenous identity.	influence Indigenous students' educational experiences, participation, and sense of belonging.	students in higher education
Silva & Pavez (2026)	Chile	Academic and ethnic identities of Indigenous STEM graduate students	Qualitative life-history study	Indigenous students navigated academic expectations while maintaining their cultural identities through culturally coexistent learning.	Supports the discussion of adaptation strategies, cultural identity, and persistence in higher education.	Adaptation strategies of Indigenous students in English-dominant higher education
Hanna et al. (2026)	Australia	Language, cultural, and institutional factors influencing academic engagement among international health students	Scoping review	Language barriers, academic transition, peer support, and institutional services influenced students' academic engagement and persistence in linguistically diverse higher education environments	Provides complementary evidence on how language, cultural adjustment, and institutional support influence academic engagement in linguistically diverse higher education contexts.	Institutional support and inclusive higher education
Grab (2026)	United States	Culturally responsive approaches for culturally and linguistically diverse students	Conceptual paper	Culturally responsive teaching strengthens student engagement by integrating learners' linguistic and cultural backgrounds into instructional practice.	Provides conceptual support for culturally responsive pedagogy as an approach for addressing linguistic and cultural diversity in higher education.	Institutional support and inclusive higher education
Panganiban-Lualhati & Panganiban (2026)	Philippines	Strategies and challenges in implementing culturally responsive pedagogy	Exploratory sequential mixed-methods study	Faculty recognized the value of culturally responsive pedagogy but identified limited institutional support and professional development as continuing challenges.	Reinforces the importance of faculty preparation and institutional commitment to inclusive education.	Institutional support and inclusive higher education
Andrews, Robertson, & Sehgal (2026)	Canada	Indigenous students' experiences of decolonization and Indigenization in higher education	Qualitative interview study	Indigenous students emphasized that meaningful inclusion requires responsive Indigenization rather than the symbolic inclusion of Indigenous perspectives.	Supports the need for culturally inclusive institutional policies and practices in higher education.	Conceptual synthesis toward the proposed framework

García-Silva, García-Holgado, Sánchez-Gómez, & Verdugo-Castro (2026)	Mexico	Culturally responsive challenge-based STEM education among rural and Indigenous primary students	Pre-post intervention study	Culturally responsive challenge-based STEM instruction enhanced student engagement, learning outcomes, and the integration of Indigenous cultural knowledge into STEM education.	Provides transferable evidence that culturally responsive pedagogy enhances student engagement, learning outcomes, and the integration of Indigenous knowledge. Although conducted in a primary education context, the study offers valuable conceptual insights applicable to culturally responsive teaching and inclusive practices in higher education.	Conceptual synthesis toward the proposed framework
Singh & Jack (2022)	Malaysia	Language, culture, and postgraduate international students' academic adjustment	Qualitative study	Language and cultural factors influenced students' academic adjustment, communication, and overall academic success in higher education.	Provides evidence linking language proficiency and cultural adaptation to academic adjustment in English-dominant higher education.	Language barriers and academic adjustment in English-dominant higher education

Note. Table 1 summarizes the key studies that informed the conceptual synthesis of this review. The included studies represent diverse geographical contexts, methodological approaches, and educational settings. While some studies directly examine Indigenous learners, others provide complementary conceptual insights into language barriers, cultural adaptation, and inclusive institutional practices in higher education. Collectively, these studies provide a relevant evidence base for developing the proposed framework for Aeta college students in English-dominant higher education. The final column indicates the primary thematic category to which each study contributed during the thematic synthesis.

Limitations of the Review

One limitation of this review is that it included primarily English-language peer-reviewed publications retrieved from major academic databases, together with selected foundational scholarly works that provided relevant theoretical and conceptual foundations. Consequently, relevant studies published in other languages or contained in grey literature may not have been captured. In addition, the limited number of studies specifically focusing on Aeta college students required the inclusion of related literature on Indigenous learners and culturally and linguistically diverse students from other higher education contexts. Nevertheless, the adopted search strategy provided an appropriate evidence base for developing the conceptual synthesis and proposed framework presented in this review.

Language Barriers among Aeta College Students in English-Dominant Higher Education

Language plays a fundamental role in shaping students' academic success, participation, and overall educational experiences in higher education. For Indigenous students, language extends beyond a medium of communication; it represents cultural identity, traditional knowledge, and community belonging. Nevertheless, many universities continue to use English as the dominant language of instruction, academic writing, research, and assessment. Although proficiency in English facilitates access to global scholarship and broader academic opportunities, English-dominant higher education environments may create challenges for Indigenous learners whose linguistic backgrounds differ from those prioritized within mainstream educational systems. Consequently, language functions not only as a means of academic communication but also as a structural factor influencing educational access, participation, and inclusion within higher education.

Contemporary literature demonstrates that language-related challenges influence not only academic performance but also students' psychological well-being, social integration, and sense of belonging within higher education institutions. Hanna et al. (2026), in their scoping review of international health students in Australian universities, identified language proficiency as an important factor influencing academic engagement. Their findings further revealed that language-related challenges often intersect with cultural adjustment, academic transition, and institutional support, suggesting that educational experiences are shaped by the interaction of linguistic, cultural, and institutional factors rather than language proficiency alone. Similarly, Singh and Jack (2022) reported that language and cultural differences influenced students' academic adjustment, communication, and educational experiences in higher education, reinforcing the importance of language-sensitive institutional support. The literature further indicates that language-related challenges should not be interpreted as indicators of limited academic ability. Rather, they often reflect differences in prior linguistic exposure, educational opportunities, and sociocultural experiences before students enter higher education. Grab (2026) emphasized that culturally and linguistically diverse learners may encounter unfamiliar academic conventions, implicit cultural expectations, and challenges in engaging with academic English within university classrooms. Collectively, these findings suggest that language barriers are multidimensional, emerging from the interaction between students' linguistic backgrounds and institutional practices that privilege dominant forms of language, communication, and academic discourse.

Among Indigenous learners, language barriers are further shaped by historical marginalization, cultural identity, and persistent educational inequalities. Pérez-Castro et al. (2025) found that Indigenous university students experienced discrimination associated with language, place of origin, socioeconomic status, and cultural identity, which affected their educational participation and sense of belonging. Likewise, Silva and Pavez (2026) demonstrated that Indigenous students continuously negotiate their Indigenous identities while adapting to the linguistic, cultural, and academic expectations of mainstream universities. These studies indicate that language barriers cannot be

understood solely as linguistic challenges but must also be recognized as interconnected with broader issues of educational equity, cultural recognition, and institutional inclusion.

Within the Philippine context, these issues are particularly relevant to Aeta college students, whose linguistic backgrounds and cultural practices may require additional institutional recognition and support within English-dominant higher education environments. Although research on Indigenous education in the Philippines has expanded, studies specifically examining the language-related experiences of Aeta college students remain limited. Regaspi (2025) emphasized the importance of school, family, and community support in sustaining the educational aspirations of Aeta learners while highlighting the continuing need for culturally responsive educational practices. The available evidence suggests that improving English proficiency alone is insufficient to achieve meaningful educational inclusion. Instead, effective inclusion requires institutional support systems that recognize Indigenous knowledge, linguistic diversity, and cultural identities as essential components of equitable higher education.

Overall, the reviewed literature demonstrates that language barriers constitute complex educational challenges extending beyond communication difficulties. They influence academic engagement, classroom participation, social integration, and cultural identity while reflecting broader structural inequalities within higher education. For Indigenous students, including Aeta college students, these challenges are shaped by the intersection of linguistic diversity, historical marginalization, and institutional practices that often privilege dominant languages and cultures. Therefore, promoting educational inclusion requires more than strengthening English proficiency. Higher education institutions must adopt culturally responsive pedagogies, establish language-sensitive academic support systems, and recognize Indigenous languages and knowledge systems as valuable educational resources rather than barriers to learning. These insights provide the conceptual foundation for examining the adaptation strategies employed by Indigenous students as they navigate English-dominant higher education environments.

Adaptation Strategies of Indigenous Students in English-Dominant Higher Education

Despite the linguistic and cultural barriers encountered in higher education, Indigenous students demonstrate agency by developing various adaptation strategies that enable them to participate in English-dominant academic environments. Rather than being passive recipients of educational challenges, many Indigenous learners actively negotiate the demands of mainstream higher education while maintaining their cultural identities, values, and community connections. These strategies reflect not only individual resilience but also the ways Indigenous students draw upon personal, cultural, and social resources while navigating academic environments shaped by linguistic, cultural, and institutional expectations.

One commonly identified adaptation strategy involves the gradual development of academic English proficiency through sustained exposure to classroom instruction, academic reading, collaborative learning, and interactions with faculty members and

peers. As students become more familiar with academic discourse, discipline-specific vocabulary, and institutional expectations, they may develop greater confidence in participating in classroom discussions, completing academic tasks, and engaging in scholarly activities. Hanna et al. (2026) highlighted that transition programs, peer mentoring, language support services, and flexible learning opportunities can facilitate students' adjustment to higher education environments. Similarly, Singh and Jack (2022) demonstrated that language proficiency, cultural adjustment, and supportive academic environments collectively influence students' communication, confidence, and academic adjustment, emphasizing the importance of integrated support systems for linguistically diverse learners.

Beyond linguistic development, the literature emphasizes the importance of academic and social support networks in strengthening student persistence and educational engagement. Indigenous learners often rely on relationships with peers, faculty members, families, and communities to overcome academic challenges, maintain motivation, and reduce experiences of isolation. Within the Philippine context, Regaspi (2025) emphasized the significant contribution of family, school, and community support in sustaining the educational aspirations of Aeta learners. These findings suggest that successful adaptation is not solely an individual process but is shaped by the availability of supportive relationships, cultural resources, and inclusive institutional environments.

Another important adaptation strategy involves maintaining cultural identity while engaging with the academic culture of higher education. Silva and Pavez (2026) described this process as culturally coexistent learning, wherein Indigenous students negotiate academic expectations while preserving their ethnic identities, cultural values, and Indigenous knowledge systems. Rather than requiring students to abandon their cultural backgrounds, effective adaptation involves navigating both Indigenous and academic worlds in ways that allow academic participation and cultural preservation to coexist as complementary dimensions of Indigenous students' educational experiences.

The literature further indicates that adaptation becomes more sustainable when higher education institutions actively develop culturally responsive learning environments. Grab (2026) argued that integrating students' cultural backgrounds, prior knowledge, and lived experiences into teaching practices enhances engagement and reduces cultural disconnection. Likewise, Panganiban-Lualhati and Panganiban (2026) emphasized that culturally responsive pedagogy requires institutional commitment, faculty development, and supportive policies to effectively promote inclusive education. Therefore, adaptation should not be understood as a responsibility placed solely on Indigenous students; rather, it represents a reciprocal process in which students exercise agency while institutions establish conditions that support academic success, cultural inclusion, and equitable participation.

Overall, the reviewed literature demonstrates that Indigenous students employ interconnected adaptation strategies, including developing academic language practices, accessing academic and social support networks, maintaining cultural identity, and participating in culturally responsive learning environments. Successful adaptation

emerges from the interaction between student agency, community resources, and institutional support. Consequently, higher education institutions should strengthen policies and practices that promote linguistic inclusion and cultural responsiveness, enabling Indigenous students to participate fully, succeed academically, and sustain their cultural identities within English-dominant higher education contexts. These insights provide an important foundation for examining the role of institutional support in advancing inclusive higher education and informing the proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education.

Institutional Support for Inclusive Higher Education

Inclusive higher education extends beyond expanding access to university education; it requires institutions to create learning environments where students from diverse linguistic, cultural, and socioeconomic backgrounds can participate fully, succeed academically, and develop a strong sense of belonging. Contemporary scholarship emphasizes that educational inclusion is a collective institutional responsibility rather than an obligation placed solely on individual students. For Indigenous learners, academic success depends not only on personal agency and resilience but also on the capacity of higher education institutions to recognize and respond to their linguistic, cultural, and educational needs. This perspective is consistent with international understandings of inclusive education, which emphasize that institutions must transform their policies, structures, and practices to accommodate learner diversity and remove barriers to participation rather than placing the responsibility for adaptation solely on marginalized students (UNESCO, 2020).

Recent studies demonstrate that comprehensive institutional support contributes significantly to students' academic engagement, well-being, persistence, and sense of belonging in higher education. Hanna et al. (2026) identified transition programs, peer mentoring, flexible learning opportunities, language support services, and comprehensive student assistance as important institutional mechanisms that facilitate academic success. These forms of support help reduce the effects of language barriers, strengthen students' confidence, and encourage meaningful participation in academic life. Similarly, Singh and Jack (2022) emphasized that language proficiency, cultural adjustment, and supportive institutional environments are closely associated with students' academic adaptation and educational experiences, highlighting the importance of integrated support systems for linguistically and culturally diverse learners.

Beyond student support services, inclusive higher education requires teaching practices that recognize and value students' cultural identities, linguistic resources, and prior experiences. Grab (2026) argued that culturally responsive teaching enables educators to connect students' cultural backgrounds, linguistic resources, and lived experiences with classroom instruction, thereby strengthening engagement and reducing cultural disconnection. Likewise, Panganiban-Lualhati and Panganiban (2026) found that culturally responsive pedagogy contributes to improved student engagement and learning outcomes in Philippine educational contexts. However, challenges related to faculty preparedness, limited institutional support, and inconsistent policy implementation highlight the need for sustained faculty development, institutional commitment, and

systematic integration of inclusive practices.

For Indigenous learners, institutional support must also recognize the central role of cultural identity in educational success. Silva and Pavez (2026) emphasized that Indigenous students' persistence is strengthened when universities acknowledge, respect, and affirm their cultural identities while providing meaningful opportunities for participation within academic communities. Rather than expecting Indigenous students to assimilate into dominant academic cultures, institutions should adopt culturally sustaining approaches that allow Indigenous knowledge systems, languages, and perspectives to coexist with mainstream academic practices. Such approaches promote cultural inclusion while strengthening students' academic engagement and sense of belonging.

Within the Philippine context, Regaspi (2025) highlighted the importance of coordinated support from schools, families, and communities in sustaining the educational aspirations of Aeta learners. However, Indigenous cultural perspectives remain insufficiently integrated into institutional programs and support systems. Therefore, higher education institutions must strengthen partnerships with Indigenous communities, incorporate culturally relevant learning resources, and develop support mechanisms that respond to the linguistic, cultural, and educational realities of Aeta college students.

Overall, the reviewed literature demonstrates that inclusive higher education requires an interconnected institutional approach integrating linguistic inclusivity, culturally responsive pedagogy, faculty development and language-sensitive teaching, comprehensive institutional support services, community engagement and Indigenous partnerships, and policy and curriculum integration. These elements should function as coordinated components of an inclusive educational ecosystem rather than isolated interventions. For Aeta college students navigating English-dominant higher education contexts, meaningful inclusion is achieved when universities recognize linguistic diversity and cultural identity as educational strengths that enrich teaching, learning, and institutional development. These insights provide the conceptual foundation for the Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education presented in the succeeding section.

Conceptual Synthesis: Toward the Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education

The literature synthesized in this review demonstrates that the educational experiences of Indigenous students in English-dominant higher education cannot be adequately explained by language proficiency alone. Rather, these experiences emerge from the interaction of linguistic, cultural, institutional, and sociocultural factors that collectively influence students' academic participation, persistence, psychological well-being, and sense of belonging. Across the reviewed studies, language barriers extend beyond communication difficulties by affecting students' confidence, classroom engagement, academic identity, and opportunities for meaningful participation in university life (Singh & Jack, 2022; Hanna et al., 2026). Therefore, language should be understood as a multidimensional educational issue embedded within broader

institutional, cultural, and social contexts. This perspective aligns with Strayhorn's (2018) framework on college students' sense of belonging, which emphasizes that students' engagement and persistence are shaped by whether they perceive themselves as valued, supported, and accepted within the academic community.

The review further demonstrates that Indigenous students are not passive recipients of educational challenges. Instead, they actively employ adaptation strategies that enable them to navigate English-dominant academic environments while maintaining their cultural identities. These strategies include developing academic language practices, seeking support from peers, faculty members, families, and Indigenous communities, engaging in collaborative learning, and negotiating between Indigenous cultural values and mainstream academic expectations (Silva & Pavez, 2026; Regaspi, 2025). These findings suggest that successful adaptation is not solely a consequence of individual effort but emerges through the interaction between student agency, cultural resources, and supportive educational environments. This interpretation is consistent with Yosso's (2005) community cultural wealth framework, which challenges deficit-based perspectives by recognizing the knowledge, skills, relationships, and cultural resources that marginalized students bring into educational spaces. The reviewed literature also highlights the central role of higher education institutions in determining whether students' adaptation strategies result in meaningful educational success. Universities that provide language-sensitive support, culturally responsive pedagogy, inclusive curricula, faculty development, peer mentoring, and accessible student services create conditions that promote academic engagement, persistence, and belonging among diverse learners (Grab, 2026; Hanna et al., 2026). Furthermore, Panganiban-Lualhati and Panganiban (2026) emphasized that culturally responsive pedagogy requires sustained institutional commitment, supportive policies, and continuous faculty development to effectively promote educational inclusion. Collectively, these findings reinforce that inclusive higher education is a shared institutional responsibility rather than an expectation placed solely on Indigenous students.

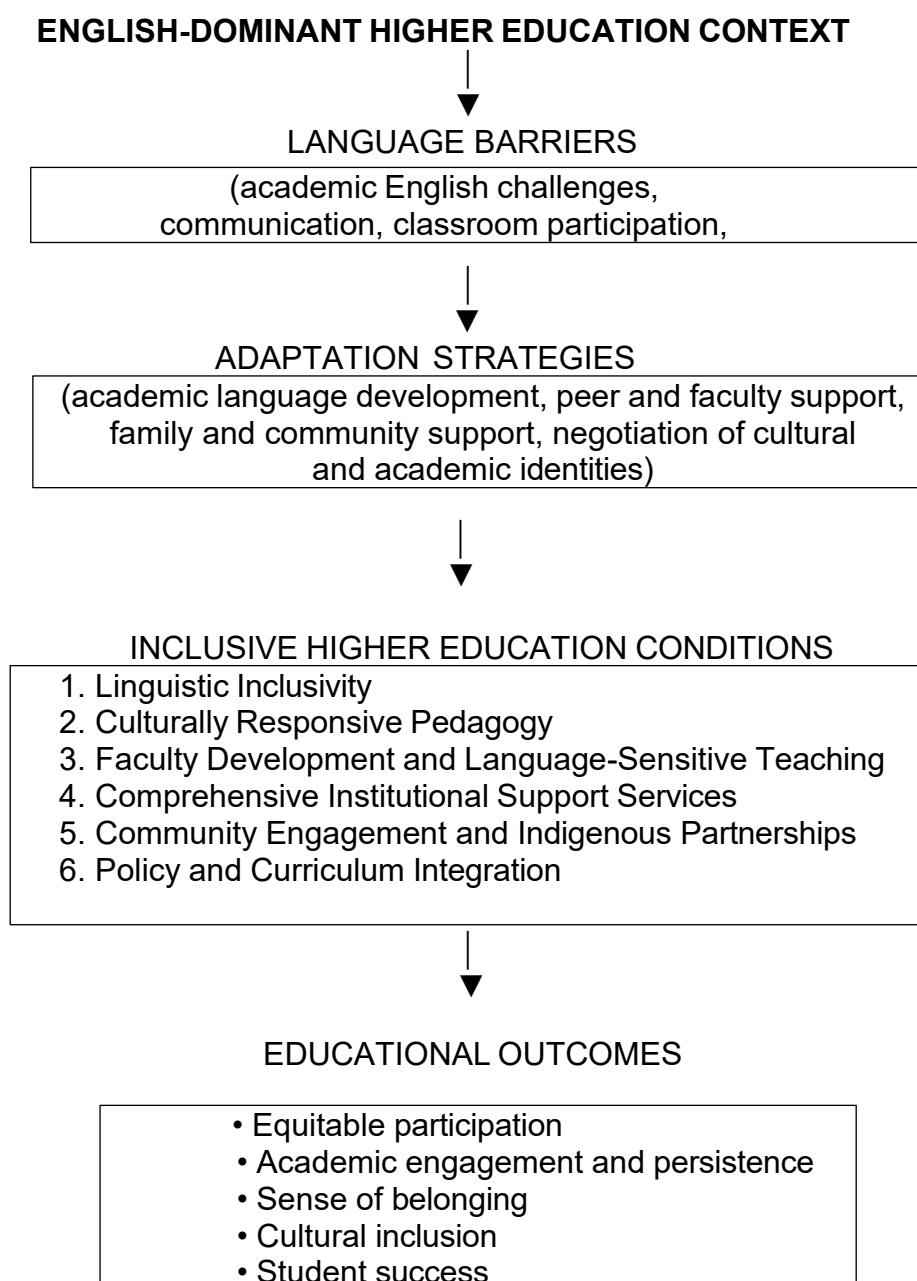
A whole education approach further emphasizes that inclusive education requires coordinated efforts across institutional policies, learning environments, support mechanisms, and pedagogical practices rather than isolated interventions focused only on individual learners (Kenny et al., 2023). Applied to the educational experiences of Aeta college students in English-dominant higher education, this perspective highlights that academic challenges should not be interpreted solely as consequences of students' linguistic backgrounds or preparedness. Instead, institutions must examine structural conditions, strengthen culturally responsive practices, and establish equitable support systems that recognize Indigenous learners' linguistic, cultural, and educational contexts.

Drawing together these interconnected findings, this review proposes the **Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education** (Figure 1). The framework conceptualizes language barriers as an initial challenge encountered by Indigenous learners within English-dominant academic environments. These barriers influence students' academic participation, communication, classroom engagement, confidence, and social integration.

In response, students employ adaptation strategies supported by personal agency, family encouragement, peer relationships, cultural identity, and community resources. Consistent with Yosso's (2005) community cultural wealth framework, these adaptation processes emphasize the strengths and resources Indigenous learners bring into higher education rather than viewing linguistic and cultural differences as deficiencies.

Figure 1 illustrates the proposed conceptual relationships identified through the thematic synthesis.

Figure 1. Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education



Note. *The framework illustrates the relationship among language barriers, student adaptation strategies, institutional support conditions, and educational outcomes. It emphasizes that inclusive higher education requires coordinated institutional efforts that recognize Indigenous linguistic and cultural resources as strengths rather than deficits.*

The effectiveness of students' adaptation strategies, however, depends significantly on institutional conditions that either facilitate or constrain their educational experiences. Guided by a whole education approach (Kenny et al., 2023), the proposed framework emphasizes coordinated institutional responses through linguistic inclusivity, culturally responsive pedagogy, faculty development and language-sensitive teaching, comprehensive institutional support services, community engagement and Indigenous partnerships, and policy and curriculum integration. The interaction among these elements contributes to equitable participation, academic success, cultural inclusion, psychological well-being, sense of belonging, and sustained educational persistence among Aeta college students. More broadly, the proposed framework advances the perspective that linguistic diversity should not be regarded as a deficit requiring remediation but as an educational resource that enriches teaching, learning, and institutional development. Recognizing Indigenous languages, knowledge systems, and cultural perspectives strengthens not only the educational experiences of Aeta college students but also the inclusiveness and social relevance of higher education institutions. Through asset-based approaches that value Indigenous students' cultural resources, community connections, and lived experiences (Yosso, 2005), universities can move beyond limited language support initiatives toward comprehensive institutional practices that promote equity, belonging, and meaningful inclusion for Indigenous learners. Collectively, the proposed framework provides a conceptual foundation for advancing inclusive higher education for Aeta college students in the Philippines and other multilingual higher education contexts.

Operationalizing the Proposed Inclusive Higher Education Framework: Six Interrelated Bases for Aeta College Students in English-Dominant Higher Education

The synthesis of the reviewed literature demonstrates that promoting inclusive higher education for Aeta college students requires a comprehensive institutional approach that recognizes the interconnected roles of language, culture, pedagogy, student support, community engagement, and educational policy. Across the reviewed studies, language barriers are not understood merely as individual student challenges but as outcomes of broader linguistic, cultural, institutional, and sociocultural conditions that shape students' academic participation, educational experiences, and success. Accordingly, fostering equitable educational opportunities requires coordinated institutional efforts that address these interconnected dimensions through linguistically inclusive, culturally responsive, and student-centered policies and practices.

Building upon the Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education developed through the conceptual synthesis, this review identifies six interrelated bases that may guide higher education institutions in designing and implementing more linguistically inclusive, culturally responsive, and equitable learning environments. Although presented as

distinct elements for analytical purposes, these bases are conceptually interconnected and should be implemented as complementary components of a comprehensive institutional approach that promotes educational equity, meaningful participation, academic success, and cultural inclusion among Indigenous learners.

Linguistic Inclusivity

Creating an inclusive higher education environment requires universities to recognize that students enter academic spaces with diverse linguistic backgrounds and educational experiences. For Aeta college students, linguistic diversity should be viewed as an educational asset that enriches the academic community rather than as a limitation to learning. While English remains an important language of instruction and scholarly communication, higher education institutions have a responsibility to strengthen students' academic English development while simultaneously respecting and valuing their Indigenous languages and linguistic identities.

This perspective is consistent with translanguaging theory, which views multilingual learners' complete linguistic repertoires as valuable resources for meaning-making, learning, and academic participation rather than as barriers that must be eliminated (García & Li Wei, 2014). Linguistic inclusivity may be promoted through flexible instructional approaches, accessible learning resources, language-sensitive teaching practices, and classroom interactions that encourage meaningful participation regardless of students' initial English proficiency. By recognizing linguistic diversity as a resource, universities can strengthen students' confidence, classroom engagement, and equitable participation in academic life.

Culturally Responsive Pedagogy

Inclusive higher education requires pedagogical approaches that acknowledge, respect, and integrate the cultural identities, lived experiences, and Indigenous knowledge systems of Aeta college students into teaching and learning. Culturally responsive pedagogy encourages faculty members to connect academic content with students' cultural backgrounds through relevant learning materials, contextualized examples, and inclusive classroom practices.

These approaches enhance academic engagement while strengthening students' sense of belonging and cultural affirmation within higher education institutions. This perspective is consistent with Gay's (2018) framework of culturally responsive teaching, which recognizes students' cultural knowledge, lived experiences, and identities as valuable resources that enrich educational processes. Furthermore, affirming students' cultural identities contributes to a stronger sense of belonging by communicating that their backgrounds and experiences are valued within academic spaces (Strayhorn, 2018). This asset-based perspective also reflects Yosso's (2005) emphasis on recognizing the cultural resources Indigenous learners bring into educational environments.

Faculty Development and Language-Sensitive Teaching

Faculty members play a central role in establishing inclusive learning environments for Indigenous students. Therefore, professional development initiatives should strengthen educators' competencies in intercultural communication, culturally responsive pedagogy, language-sensitive instruction, and inclusive assessment practices.

Developing faculty awareness of Indigenous learners' linguistic, cultural, and educational realities enables educators to adopt more flexible, equitable, and responsive teaching approaches. Such practices help reduce unintended linguistic and cultural barriers while promoting student engagement and academic success. This emphasis on faculty capacity-building aligns with culturally responsive teaching principles, which highlight educators' responsibility to recognize students' cultural backgrounds, integrate diverse perspectives into instruction, and create learning environments where all students feel valued and supported (Gay, 2018). Consequently, sustained faculty development represents an essential institutional strategy for advancing inclusive higher education.

Comprehensive Institutional Support Services

Inclusive higher education extends beyond classroom instruction and requires coordinated institutional support systems that address students' academic, linguistic, psychological, and social needs. Universities should establish comprehensive services such as academic writing support, language enhancement programs, peer mentoring, tutoring services, counseling programs, orientation activities, and transition initiatives for Indigenous learners.

Research indicates that structured transition programs, peer mentoring, language support services, and accessible student assistance mechanisms contribute to improved academic engagement, confidence, and persistence among students navigating unfamiliar higher education environments (Hanna et al., 2026). Rather than functioning solely as remedial interventions, these services should empower Indigenous students by strengthening academic confidence, promoting self-efficacy, facilitating meaningful participation, and developing a stronger sense of belonging (Strayhorn, 2018).

Community Engagement and Indigenous Partnerships

Meaningful inclusion requires sustained collaboration between higher education institutions and Indigenous communities. Universities should actively engage Indigenous leaders, families, community organizations, and other stakeholders in designing, implementing, and evaluating educational programs and support initiatives that reflect the needs, values, and aspirations of Indigenous learners.

Such partnerships recognize Indigenous communities not merely as recipients of institutional assistance but as important sources of knowledge, cultural resources, and educational guidance. This perspective aligns with Yosso's (2005) community cultural wealth framework, which emphasizes that marginalized communities possess valuable knowledge, networks, and cultural assets that contribute to educational success.

For Aeta college students, meaningful partnerships with Indigenous communities strengthen cultural relevance, enhance institutional responsiveness, and ensure that educational initiatives remain grounded in students' lived experiences while promoting shared responsibility for academic success and cultural continuity.

Policy and Curriculum Integration

Achieving sustainable educational inclusion requires institutional policies that explicitly recognize the linguistic and cultural diversity of Indigenous learners. Principles of inclusive higher education should be integrated into curriculum development, faculty preparation, student support services, quality assurance mechanisms, and institutional strategic planning.

Consistent with international perspectives on inclusive education, universities must transform their policies, structures, and practices to accommodate learner diversity and remove barriers to participation rather than placing the responsibility for adaptation solely on marginalized students (UNESCO, 2020). Furthermore, policies promoting educational equity, cultural responsiveness, Indigenous participation, and language inclusion should become embedded within institutional governance rather than implemented as temporary initiatives. Institutionalizing these principles strengthens universities' capacity to sustain inclusive educational practices and respond effectively to the evolving needs of Indigenous learners.

Collectively, these six interrelated bases operationalize the Proposed Inclusive Higher Education Framework for Aeta College Students in English-Dominant Higher Education. Rather than functioning as independent recommendations, these bases represent interconnected dimensions of an inclusive educational ecosystem involving language, culture, pedagogy, institutional support, community engagement, and educational policy. Together, they advance an asset-based understanding of Indigenous learners by recognizing linguistic diversity, cultural knowledge, community resources, and lived experiences as valuable contributions to higher education environments (García & Li Wei, 2014; Yosso, 2005).

Ultimately, achieving meaningful inclusion depends on universities fostering learning environments where Indigenous students are respected, supported, and acknowledged as integral members of the academic community. By cultivating these conditions, higher education institutions can enhance students' sense of belonging, encourage academic persistence, promote educational success, and sustain the cultural identities of Aeta college students (Strayhorn, 2018).

Conclusions

This conceptual review examined the existing literature on the language barriers, adaptation strategies, and institutional support experienced by Indigenous learners, with particular emphasis on Aeta college students in English-dominant higher education. The synthesis revealed that language-related challenges extend beyond English proficiency and are closely associated with cultural identity, classroom participation, academic

confidence, and access to educational opportunities.

The reviewed literature further demonstrated that Indigenous students employ diverse adaptation strategies, including peer support, code-switching, self-directed learning, family encouragement, and resilience, to cope with linguistic and academic challenges. However, these individual efforts become more effective when complemented by institutional initiatives that promote culturally responsive pedagogy, language-sensitive instruction, inclusive policies, and comprehensive student support services.

Based on the thematic synthesis, this review proposed an Inclusive Higher Education Framework consisting of six interrelated dimensions: linguistic inclusivity, culturally responsive pedagogy, faculty development and language-sensitive teaching, comprehensive institutional support services, community engagement and Indigenous partnerships, and policy and curriculum integration. Collectively, these dimensions emphasize that meaningful educational inclusion requires institutional commitment rather than relying solely on students' capacity to adapt.

Overall, the review provides a conceptual foundation for higher education institutions, educators, policymakers, and researchers seeking to strengthen inclusive educational practices that recognize Indigenous languages, cultures, and identities as valuable resources for teaching and learning.

Recommendations

The synthesized literature suggests that higher education institutions may strengthen culturally responsive and language-inclusive practices to better support Indigenous learners. Future empirical studies may examine the applicability and effectiveness of the proposed Inclusive Higher Education Framework among Aeta college students and other Indigenous communities across different higher education contexts.

Compliance with Ethical Standards

This study employed a conceptual literature review using publicly available scholarly publications. Since this study synthesized evidence from publicly available scholarly literature and did not involve human participants, interviews, surveys, or the collection of primary data, ethical approval and informed consent were not required. Nevertheless, ethical research practices were observed through accurate representation of previous studies, appropriate citation of scholarly sources, and careful interpretation of published findings. Since no human participants were involved, ethical approval and informed consent were not required. The researcher ensured that all cited sources were properly acknowledged, academic integrity was maintained throughout the preparation of the manuscript, plagiarism was strictly avoided, no conflict of interest exists, and the interpretation of the reviewed literature remained objective. Artificial intelligence (AI) was used solely to assist with language refinement and organization of the manuscript under the supervision of the researcher. All interpretations, synthesis, and scholarly content remain the responsibility of the researcher.

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