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The Role of Mother Tongue-Based Multilingual Education in Improving Literacy Among Primary School Students in Timor-Leste: A Systematic Review

ABSTRACT

This systematic review aims to discuss the role of MTB-MLE in improving the literacy levels of primary school children in Timor-Leste, a post-colonial country with multilingualism. In the scoping review, the empirical studies from 2019 to 2025 show that MTB-MLE enhances the knowledge of early readers, cognitive improvements, and students' learning interest. Research in this area has established that education in the first language enhances literacy in general and during the early years of learning and also makes it easier for learners to learn national and international languages like Portuguese and English. However, there are some difficulties in implementing the programme, including inadequate qualified multilingual teachers, a lack of instructional materials in local languages, and policies that contradict each other. It is also argued that the MTB-MLE strategies positively support cultural identity and linguistic justice, which provide the underlying achievements outside the narrow scope of academic achievement and student results. It also implies that gradualism is best, as there is no rush to switch from the first language to a second language. Instead, we should train and support the teachers and consistently develop and disseminate culturally congruent materials. Finally, it advocates for conducting additional longitudinal studies to understand the long-term impacts of technology and to determine appropriate strategies based on the findings. In general, the results underline the importance of MTB-MLE for the development of education for learners and literacy in the multilingual postcolonial context of Timor Leste.

Keywords: *Mother Tongue-Based Multilingual Education (MTB-MLE), Literacy Development, Multilingual Education Policy, Primary Education, and Timor-Leste.*

Introduction

The appropriation of mother-tongue-based multilingual education (MTB-MLE) in Timor-Leste has become an important issue for researchers, particularly how the use of MTB-MLE can promote early reading skills for primary school children in a country with so many languages and colonization in its background. As a country with over a dozen indigenous languages to go along with Tetum and Portuguese, Timor-Leste is an intriguing example of what may be gained from investigating the educational implications of multilingual instruction. According to theories about how people learn languages, MTB-MLE encourages using students' first language as the main way to teach in early education, aiming to help them build better skills in reading, writing, and critical thinking (Balacano,

2020). Lectures offered in a language student can comprehend have been found to enhance student achievement and promote active engagement with class material in numerous studies from multilingual situations (Lang-ay & Sannadan, 2021; Reyes, 2021).

However, the advantages of MTB-MLE are also accompanied by existing worries about the acquisition of other languages by students, particularly Portuguese and English, as languages of national and international interest. Other Southeast Asian contexts provide evidence of this tension. For example, Tomas (2023) points out how MTB-MLE in the Philippines had a noticeable impact on early literacy results but made it difficult to maintain students' proficiency with the second and third languages throughout subsequent learning stages. This highlights the necessity of a strategic curriculum that would enable a transition towards a phased and integrated approach to multilingual competence, avoiding blocking access to higher education and global opportunities because of mother tongue education.

The introduction of MTB-MLE in Timor-Leste should also be compared with traditional monolingual models of education that are usually based on Portuguese as a language of instruction. Studies in comparison have demonstrated that lessons using the mother tongue improve comprehension, classroom engagement, and learner confidence, especially when compared to early instruction in languages the learner has not been exposed to (Lang-ay & Sannadan, 2021; Reyes, 2021). Such outcomes are associated with the improvement in learner autonomy and academic engagement responsible for long-term educational success. However, a few barriers continue to hinder the successful implementation of these initiatives in Timor-Leste. Among other shortages, the greatest is a shortage of teachers who are fluent in both local and official languages, as well as a lack of culturally appropriate instructional materials to reflect different linguistic groups (Jesus, 2019). Such challenges are especially acute in rural and marginalized populations, where inequalities in education are pursued by infrastructural restrictions and a lack of state support.

MTB-MLE in Timor-Leste has additional socio-cultural and policy implications that extend beyond merely pedagogical concerns. In post-colonial societies, language policies unduly intersect with national identity, cultural defense, and social cohesion. Adoption of MTB-MLE not only benefits cognitive development but also actualizes indigenous languages and promotes the affirmation of historically marginalized cultural identities (Bravo-Sotelo, McLellan, & Haji-Othman, 2023). However, the outcomes of sentiment analysis performed in multilingual learning environments demonstrate ambivalence on behalf of educators. Although many acknowledge the benefits of mother tongue instruction, others argue that it could try to erode the competence of students in world languages required for involvement in the spheres of world academia and economy (Arispe, Capucao, Relucio &

Maligat, 2019).

Responding to these gaps, and to inform evidence-based education policy, this article provides a systematic review of the scholarly literature on this topic published in the years 2019-2025: the implementation and impact of MTB-MLE in Timor-Leste. In particular, the review integrates empirical findings regarding literacy development, cognitive outcomes, classroom involvement and policy incorporation in primary education contexts. This study organizes practical insights under thematic domains, including teacher preparedness, curriculum design, and socio-linguistic equity; the purpose here is to critically evaluate the effectiveness of MTB-MLE and its congruence with national educational objectives. In so doing, it provides a contextualised, methodologically rigorous platform upon which the policymakers, educators and researchers can build in the quest to promote multilingual education in post-colonial, linguistically diverse societies.

Literature Review

The Importance of Mother Tongue in Education

Research results frequently prove the importance of mother tongue education in intensifying the literacy process. This method uses the child's existing linguistic knowledge as a powerful base for advancing cognitive and linguistic growth in the important first few years of schooling (Government of Timor-Leste, 2015; La'o Hamutuk, 2014). Knowledge acquired in one's mother tongue not only sharpens such critical cognitive skills as critical thinking and problem-solving but also gives a boost to a sense of identity and self-esteem. For students in a culturally heterogeneous country such as Timor-Leste, where three or more languages, including Tetum, Portuguese, and others, are spoken, the tactical implementation of mother-tongue-based instruction is particularly powerful in primary education. It helps in understanding concepts better, which brings better learning outcomes in all subjects (Taylor-Leech & Caet, 2012). Establishing a foundation in a familiar language facilitates easier and more effective future acquisition. Additionally, this grounding fosters a closer relationship with the culture and heritage associated with the language.

Challenges in Timor-Leste's Multilingual Context

However, an apparent strength, Timor-Leste's lively multilingual environment, offers special challenges to the successful implementation of Mother Tongue-Based Multilingual Education (MTB-MLE). These challenges encompass various areas, such as formulating and implementing effective language policies, adequately preparing and training teachers, and the lack of suitably available resources. The resolution on the adoption of Portuguese as a main means of instruction in the post-independence education system was meant to create a link between Timor-Leste and the rest of the

Lusophone world; however, circumstances on the ground rejected the idea in some instances, creating an obstacle to early literacy development (Timor-Leste National Commission for UNESCO, 2021). Many students who came into school had little or no exposure to Portuguese, hence a major hurdle to learning. Admitting to these implications, several studies highlight the vitally important role of a well-thought-out and moderate policy of language in Timor-Leste (United Nations & The MIMU, 2019). This balanced policy should favor the incorporation of mother tongue instruction but at the same time prevent inadequacy in Portuguese and other languages requisite for national and international involvement.

Effectiveness of MTB-MLE in Improving Literacy

MTB-MLE program delivery resulted in demonstrably positive effects on the level of literacy in several countries with similar multilingual settings. By leveraging the successes observed in other countries, studies conducted in Timor-Leste could demonstrate similar educational gains. More precisely, research has shown that students who are initially trained in reading and writing using their mother tongue show notably enhanced reading comprehension and retention of knowledge by switching over to learning in Portuguese (UNESCO, 2023). The basic literacy skills taught in their native language form a sturdy foundation for learning to comprehend and work with information presented in a new language. These research results agree with those from global studies, which show that skills learnt in a person's native language help them learn other languages more effectively. Literacy transfer between languages is a well-documented phenomenon with offers a strategic advantage of building upon learners' existing linguistic knowledge.

Cultural Relevance and Student Engagement

AI to human-written sentence Culturally relevant education that incorporates students' cultural backgrounds, lived experiences & worldviews into the learning context is, as it is generally accepted, a key contributor to academic success in diverse and postcolonial contexts (La'o Hamutuk, 2014). Research indicates that students do better when their education connects with their language and culture, leading to greater interest, motivation, and long-term success. SIT will serve as a culturally responsive pedagogy in which MTB-MLE operates (Reyes, 2021). It validates and utilizes students' native languages and knowledge systems. By anchoring instruction in the mother tongue, MTB-MLE encourages a closer relationship between learners and the curriculum, thus fostering a sense of belonging to it and cognitive ways of access (Lang-ay & Sannadan, 2021). In Timor-Leste, where indigenous linguistic diversity exists alongside the national push for inclusion in education, the intentional incorporation of local languages, oral traditions, and community-specific knowledge into instruction has significantly contributed to creating more inclusive and engaging classroom

environments (United Nations & The MIMU 2019). Besides reinforcing academic understanding, the use of relevant materials even provides students with cultural affirmation as well as their cultural heritage. This strategy equips learners to view their background as intellectual capital and, as a result, engage as equal beneficiaries of a high-quality education.

Teacher Training and Resource Development

Well-trained and well-supported teachers are the placeholders of that language plan who can read, write and speak fluently in both the mother tongues of the learners as well as the chosen second language of instruction (e.g., Portuguese), which is an important consideration in the successful and sustainable implementation of MTB-MLE programs. Studies always bring to light the urgent need for teachers to receive continuous professional development in the form of efficient multilingual education strategies and methodology. The training should prepare them to have appropriate skills and knowledge to work effectively to support literacy outcomes in a multilingual classroom (Taylor-Leech & Caet, 2012; UNESCO, 2023). Other abilities that teachers must learn are culturally responsive teaching practices, relevant assessment techniques for multilingual learners, and the design of lively and applicable learning materials. In addition, dissemination of high-quality, culturally appropriate learning material in the mother tongue is critical. The full benefits of MTB-MLE cannot be exploited when we lack appropriate resources and well-trained teachers. This includes textbooks, storybooks, and other things that represent the students 'lived experiences and cultural heritage.

Methodology

A systematic review was conducted to identify and analyze studies conducted from 2019 to 2025 based on the intervention and impact of Mother-Tongue-Based Multilingual Education (MTB-MLE) in primary education settings. This review has sought to determine the success of MTB-MLE in promoting literacy development and academic performance in general. The selection of articles was done on rigid terms, with the best papers being those that showed methodological rigor and presented empirical evidence about literacy outcomes. To make the analysis holistic and balanced, sources for this project are drawn from solid educational databases such as JSTOR, Google Scholar, and Scopus with peer-reviewed literature and authoritative research in the educational sector. The search strategy applied a systematic strategy of a mix of keywords and Boolean operators to narrow down the search of the literature review. Important keywords were "mother tongue-based multilingual education", "MTB-MLE literacy outcomes", "bilingual education in Timor-Leste" and "language policy in primary education", which ensured studies relevant to different dimensions of MTB-MLE were considered. The review mainly covered peer-reviewed journal articles, government reports and policy

briefs published by reputable educational organizations and institutions, whichve in-depth and well-referenced data. Particular attention has been given to researches looking at literacy development, cognitive skill acquisition and academic achievement in MTB-MLE programs, as such researches' direct implications on educational policies and actual classroom practices (Padsuyan, 2024; Santiago & Dagdag, 2021).

We strictly applied exclusion and inclusion criteria during the selection process to maintain the integrity and validity of the systematic review. Inclusion criteria looked at studies that used qualitative, quantitative, or mixed-method research approaches, ensuring that the findings were based on solid data collection and analysis methods (Lin et al., 2023). Studies were chosen in accordance with their relevance to the focus of the research, particularly the one investigating the effects of MTB-MLE on literacy, student engagement, and educational equality. Preferring rigorously methodological studies, attention was focused on those that clearly described a research design, precisely defined the sample populations, and explained data collection procedures transparently. Exclusion criteria were developed to exclude studies that had no empirical evidence, were based solely on theoretical debates, or only spoke in terms of higher education fields that did not match the review's scope. The process of choosing and reviewing the articles followed PRISMA guidelines, ensuring it was organized and could be repeated for finding, picking, and combining the important literature (Wata et al., 2024). After choosing the studies, we gathered and combined the data, organizing the studies into important topics like literacy development, teacher training, curriculum changes, and policy implementation. These thematic categories helped generate a framework in which to organize the various areas of MTB-MLE, which helped understand its effectiveness and challenges in various contexts with a more profound understanding.

Researcher carefully compared different cases to find common trends, ongoing problems, and successful methods used in the implementation of MTB-MLE in different learning settings. Thematic coding strategies were used to analyze qualitative data and identify patterns and themes related to literacy development, student engagement, and how effective teaching is. At the same time, we looked closely at quantitative studies by calculating numbers like the increase in literacy rates, reading comprehension scores, and student retention rates to see how MTB-MLE affects academic success (Dorris et al., 2024; Nakamura et al., 2023). It does increase the quality of research and improves the credibility of findings; a strict quality review was held with the help of the standardized assessment structures so that research followed high standards of methodological soundness, sample representativeness, and data validity. This quality assessment process enabled critical appraisal of the reviewed literature, reducing biases and drawing a conclusion on a strong empirical base. In the end,

this organized method provided a complete picture of how MTB-MLE helps improve reading skills, highlighting both its potential benefits and the challenges associated with putting it into practice. The findings from this review broaden the existing accumulated knowledge of multilingual education and its applicability for policymakers, as well as for educators and researchers interested in optimizing literacy instruction and educational equity within the multilingual teaching and learning process in the primary education system of Timor-Leste (Daño et al., 2024).

Research Results

The systematic review showed that mother-tongue-based multilingual education (MTB-MLE) enormously improves literacy outcomes for children in primary grades in Timor-Leste. Several studies proved that early literacy learning is more successful when students are taught in their mother tongue because it creates a sound foundation for reading, writing, and comprehension. Research also showed that, scientifically, students who learn first in their native language show higher levels of confidence and levels of participation in the learning process and thus have higher academic achievements later in life. Research from Cambodia and the Philippines also backed this up, showing that students in MTB-MLE programs performed just as well as those in regular language programs when it came to reading fluency and understanding. Nonetheless, there was a concern about the ability of students to move on to second and third languages (especially Portuguese and English at later stages of their studies). Various research indicated that although MTB-MLE improves early literacy, further assistance is required to guarantee seamless linguistic transition from national to world languages (Tomas, 2023).

The research also revealed various challenges in implementing MTB-MLE within the multilingual education system of Timor-Leste. Lack of well-trained teachers competent in mother tongues and secondary languages has been one of the major constraints identified. Dampened attempts by so many teachers to integrate the practices of MTB-MLE were a factor of inadequate training and an absence of pedagogical resources (Jesus, 2019). Besides, the review revealed that a lack of teaching materials in local languages inhibited the successful implementation of MTB-MLE programs in rural areas and linguistically heterogeneous areas. Another important issue was the inconsistency in policy provision, which arose from disputes at the language policy level and resulted in ambiguities in the guidelines for curriculum development and assessment strategies. The difference in the adoption of MTB-MLE in distinct regions was a result of the gap between the policies of the government and the implementation of MTB-MLE in each school. To overcome these challenges, there needs to be a greater investment in

developing teachers and curriculum development and resources needed to make MTB-MLE a viable option in Timor-Leste.

Apart from literacy results, the research recognized the wider socio-cultural implications of MTB-MLE, especially in the context of cultural preservation and national identity issues. Various studies have been done on how MTB-MLE is highly significant in helping sustain indigenous languages while reinforcing students' cultural identity. Used in postcolonial countries such as Timor-Leste, where language has often functioned as a differentiation of power and identity, MTB-MLE empowers students to feel part of a community and ensures the language of inclusion (Bravo-Sotelo et al. 2023). Nevertheless, educators and policymakers have expressed mixed reactions, fearing that an overemphasis on local languages could socially disconnect students from global languages. This concern suggests that students may feel socially uncomfortable due to their limited proficiency in global languages, which is necessary for accessing higher education opportunities and employment in international contexts (Arispe et al., 2019). Even though many of these doubts were raised, most research found that a balanced MTB-MLE approach, characterized by a gradual transition from national to international languages with strong nineteenth-century mother tongues at the base, could provide both linguistic and cultural advantages without jeopardizing future academic and professional possibilities.

Lastly, the review points out the importance of a longitudinal study in determining the lasting consequences of MTB-MLE on student performance, especially with secondary and tertiary transitions. There was evidence of short-term gains in terms of literacy and cognitive skills, but little research on whether MTB-MLE students continue to perform well later on in subsequent educational phases, once taught mainly in Portuguese or English. Studies advised continuous assessments to examine the effectiveness of the MTB-MLE over the long run and determine best practices for supporting students in their learning world (UNESCO, 2023). The results of this review indicate that MTB-MLE can have a significant effect on transforming literacy learning in Timor-Leste if it is practiced appropriately with available resources and policy drives. In the future, research should prioritise curriculum strategy improvement, the strengthening and improvement of teacher training, and policy alignment of MTB-MLE with national education goals. These steps will be vitally important in maximizing the benefits of multilingual programs and providing equal learning opportunities for all students in Timor-Leste.

Discussion

This systematic review of the literature emphasizes the translational potential of mother tongue-based multilingual education (MTB-MLE) for promoting primary school literacy outcomes for children in Timor-Leste. In an array of different multilingual contexts, including the Philippines, Cambodia, and Timor-Leste itself, evidence invariably points to the fact that exposure to the mother tongue during early schooling results in extraordinary reading comprehension gains, language acquisition, and excellent overall academic performance (Lang-ay & Sannadan, 2021; Reyes, 2021; UNESCO, 2023). The cognitive benefits of learning in a familiar language, which underpins foundational literacy and supports thinking and confidence among young learners, account for these improvements (Kirsty Sword Gusmo Foundation, 2022).

In Timor-Leste, where more than a dozen local languages coexist alongside Tetum and Portuguese, the PBL-MLE directly addresses the linguistic reality of the population. Most students neither use Portuguese, the official language of instruction, at home nor in their community. Such a linguistic divide usually leads to poorer understanding and disinterest for the early schooling (Timor-Leste National Commission for UNESCO, 2021). MTB-MLE solves this problem by drawing on the existing linguistic resources of its students, and, consequently, it closes the opportunity gap and facilitates equal opportunities in education (Taylor-Leech & Caet, 2012).

Despite its multitude of documented benefits, the MTB-MLE faces several systemic problems in Timor-Leste. The most urgent issue is the lack of properly trained teachers who are fluent in both local languages and Portuguese. Jesus (2019) points out that many teachers articulate a lack of certainty and the challenge of learning and making use of multilingual pedagogies lack of training and support. In addition to the problem of the dearth of culturally appropriate teaching materials in the mother tongue of students, especially in rural and remote areas where there is the greatest linguistic diversity (La'o Hamutuk, 2014; United Nations & The MIMU, 2019). Lacking such resources, even benevolent MTB-MLE programs are in danger of becoming ineffective, particularly where teachers simply have to make do with inadequate or makeshift lesson material.

The literature lists the lack of coordination in a country's language policy as one of the major constraints for successful MTB-MLE implementation. Geopolitical and historical considerations provoked the will to re-optimize Portuguese as the main language of instruction after independence. However, it tends to be in direct opposition with most students' linguistic realities (Timor-Leste National Commission for UNESCO, 2021). This difference between the policy and the practice leads to unequal implementation of MTB-MLE strategies at the school and regional levels. A more coherent and inclusive language policy—one that recognizes the sociolinguistic diversity of Timor-Leste but

establishes guidelines for the systematic integration of the second and third languages— is essential for ensuring the success of MTB-MLE (Bravo-Sotelo, McLellan, & Haji-Othman, 2023).

In addition to the academic impacts that directly result from its execution, the MTB-MLE also provides significant sociocultural benefits. Instruction in the mother tongue confirms the cultural identities of students and creates a stronger classroom belonging. Particularly in post-colonial societies like Timor-Leste, where indigenous languages and cultures have historically faced marginalization, this holds true (Taylor-Leech & Caet, 2012). Results from research indicate culturally responsive teaching practices such as the incorporation of local narratives and knowledge systems to promote higher student motivation, participation, and academic success (La'o Hamutuk, 2014). In addition, by preserving the diversity of languages, MTB-MLE contributes to greater cultural sustainability and national integration.

However, concerns continue to occur regarding the implementation of MTB-MLE, particularly about students' proficiency in international languages such as Portuguese and English. Some educators and policymakers fear that overconcentration on local languages in the early years can affect students' performances when they enter secondary school and function in a globalized academic or professional environment (Arispe, Capucao, Relucio, & Maligat, 2019). These issues indicate that a balanced and phased strategy should be used in the process of teaching a language, and teaching begins with the language of the native speakers, then goes to the second, and subsequently to the third language later in the process of educating (Tomas, 2023).

The review reveals one of the salient, if not primary, gaps: the absence of longitudinal research on how MTB-MLE affects students' long-term academic performance. Whereas most research details short-term literacy improvements, there is not enough evidence to verify whether the gains made in literacy match long-term successful learning at the elementary and secondary levels, where Portuguese or English could dominate the curriculum (UNESCO, 2023). Future research should use longitudinal designs to test the complete educational trajectories of students who have experienced MTB-MLE, which will provide information on how early linguistic advantages can be sustained over time.

Finally, the existing body of literature confirms that MTB-MLE is an effective, culturally responsive, and equity-informed approach to educational initiatives appropriate for Timor-Leste. However, for the resource to fully serve its purpose, interventions targeting teacher preparation, the curriculum, and resource delivery are required. In addition, policy reforms have to fit not only local linguistic realities but also nationwide development goals. Investment and commitment to inclusive education can, over time, position MTB-MLE as a formative player in changing literacy results and advancing linguistic justice in Timor-Leste.

Conclusion and Recommendations

The systematic literature review conducted in this study endorses the transformative potential of Mother Tongue-Based Multilingual Education (MTB-MLE) in the development of literacy outcomes of primary school students in Timor-Leste. MTB-MLE has consistently been linked to better reading comprehension, improved cognitive development, and higher student engagement in multilingual contexts around the world, particularly considering the unique sociolinguistic ecosystem in Timor-Leste. By tapping into the linguistic riches that children bring to school, i.e., their home languages, MTB-MLE makes the learning content consistent with learners' realities, hence bolstering the roots for academic as well as socio-emotional well-being.

One of the core messages from this review is that early literacy skills are learnt far more effectively when the instruction is in the learner's native language. A review of studies conducted in this article showed that the children who learn in the mother language of their mother perform better in formative literacy tests, retain more, and develop more classroom confidence and active participation. These findings are supported by international evidence, which indicates that mother tongue instruction during the initial years helps transfer literacy and critical knowledge to further languages, including national and foreign languages (Portuguese, English, etc.).

In addition, the implementation of MTB-MLE promotes wider cultural and identity-enforcing roles of education. Multilingual education in a post-colonial country like Timor-Leste signifies a transition to more inclusive and representative schooling, especially since language has historically been used as a tool for exclusion and political conflict. The MTB-MLE, by introducing local languages and cultural narratives into the classroom, makes students feel a part of it and, in turn, contributes to revitalizing Timor-Leste’s rich linguistic heritage.

Despite its promising results, the review also examines several structural and systemic challenges that prevent the successful implementation of MTB-MLE. The most glaring among these is the shortage of trained teachers who are fluent neither in the local nor in the official language of instruction. Many teachers lack adequate preparation in multilingual pedagogies and are not developmentally ready to successfully implement MTB-MLE strategies. Of course, a lack of culturally and linguistically appropriate teaching materials is compounded by this issue, especially in rural and marginalized areas. Further, incoherency in language policy at the national level leads to patchy implementation and confusion among stakeholders.

Another important issue is that with mother-tongue instruction replaced or supplemented by the second and third ones (Portuguese and English), students generally flounder. Although such an early instruction in the mother tongue gives a firm ground behind students, this often creates problems for

students trying to achieve academic fluency in a strange language without proper scaffolding. This calls for a better model of structured and progressive transition of pupils from monolingual to dual to trilingual that would enable sustained bilingual and trilingual language development without sudden change, which is detrimental to the continuity of learning.

MTB-MLE goes much beyond just new teaching methods; it takes the form of an educational paradigm that embraces and uses Timor-Leste's linguistic and cultural diversity as a strength and opportunity. Human resource-focused efforts, curricular building and harmonized policies have the potential to drastically improve literacy levels and provide more equity within Timor-Leste's system of education. With its goals of sustainable development and inclusive nation-building, Timor-Leste should guarantee that multilingual education will remain the center of its ongoing educational reform agenda.

Based on the findings as mentioned earlier, the researcher proposes the following recommendations to improve the implementation and long-term impact of MTB-MLE in Timor-Leste.

Investing in Complete Teacher Training Programs

Teacher preparedness is a key aspect of the success of MTB-MLE. In partnership with universities and educational NGOs, the Ministry of Education should develop specialized modules on multilingual pedagogical strategies, language transition planning, and culturally responsive instruction. These programs must form part of the pre-service as well as the in-service training pathways for teachers.

Develop and Disseminate Multilingual Learning Resources

Response It is imperative to have a wide range of instructional materials in vernacular languages. Government investment should also be spent on the production, translation, and dissemination of learning materials in all of Timor-Leste's mother tongues—including textbooks, storybooks, workbooks, and multimedia platforms. Collaboration with the educators and cultural specialists placed in the community can lead to the production of good-quality, culturally appropriate educational resources.

Design a Phased Language Transition Model

If secondary language prizes are involved, we must implement wedge-shaped incisions. Guidelines for policy decisions should offer a systematic and data-guided perspective on helping students transition their language from native to official and global languages. It should define how long students will be taught in their native language, when and how secondary languages will be used, and how each language will be judged.

Strengthen Policy Coherence and Institutional Coordination

If MTB-MLE is to succeed, national language policies, curriculum frameworks, and assessment standards must align with each other. The synthesis of representatives from the Ministry of Education, the culture sector, and linguistics experts under an inter-ministerial coordination body enhances the synchronization of language policies and oversight of regional implementation.

Conduct Longitudinal Research and Monitoring

Longitudinal research assessing the long-term impact of MTB-MLE on academic success beyond the primary years has a very thin developmental history. Longitudinal studies are required to determine the continued effects of early mother tongue instruction on success in secondary school, Portuguese and English languages, and life opportunities. Such research is crucial for changing teaching methods and ensuring ongoing support from teachers and policymakers.

Promote Community Engagement and Advocacy

Community members should take a central role in understanding and promoting the MTB-MLE goals. The practice of initiatives that advance community understanding, increase parent involvement, and involve schools as governing members of a multilingual society can make local ownership and appreciation of multilingual education possible.

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Demystifying Global Citizenship Education Framework Representation in an Algerian EFL Textbook

ABSTRACT

Global Citizenship Education has established itself as an essential component of educational policies across the globe; therefore, this research study scrutinizes the incarnation of the principles and the competencies of GCE in an English language textbook. The content analysis of textbook *New Prospects* is undertaken via a combination of guidelines from the UNESCO's (2015) and Sharma's (2020) framework, and PISA (2018) framework of global competencies. The results indicate that the dimensions of GCED are substantially represented across the rubrics of this textbook, and the four global competencies are well-addressed via productive, receptive and linguistic components.

Keywords**:** *Global Citizenship Education, global competency, secondary education, textbook, EFL context*

Introduction

Global Citizenship Education is gaining momentum at the national and international spheres due to persistent challenges at the political, economic, environmental and human level; therefore, there is a growing need to help learners understand a world that is interconnected and constantly changing. In this context, the ultimate goal of education should shift from solely helping the learners to master a foreign language into a transformative objective. Educational policies should seek the empowerment of learners to become global citizens, who are well informed of current issues and crises such as global warming and climate change, crisis of refugees and human rights, and the rise of xenophobia and racism among others. Hence, the language classroom is the ideal venue to address and implement such mission in which pedagogical practices can ensure the adherence to universal, humane values and nurture tolerance and interdependence amongst human beings. Accordingly, the major aim is to highlighting if the *New Prospects* student textbook upholds the principles and the competencies of GCE. Hence, we formulate these research questions:

1/ To what extent does the textbook embrace and highlight the principles of GCED?

2/ Do the textbook content and activities promote the four global competencies of GCED or not?

Review of Literature

Global Citizenship Education: Conceptualization and Genesis

The concept of Global Citizenship Education (GCED) has been considered univocal since it does not lend itself to a direct definition, but the notion is complex, controversial, dynamic and subject to various interpretations (Santamaría-Cárdaba, Gajardo-Espinoza and Cáceres-Iglesias, 2024; Tarozzi, 2023). The complexity of the concept relatively emerged from disagreement among scholars to approve one central definition (Gaudelli, 2016). This lack of agreement can also be attributed to GCED as a term that entails interconnected, multidisciplinary fields that are particularly contested and paradoxical at times (Pashby, 2016; UNESCO, 2015). Similarly, the term can have different connotations across several contexts and nations (Akkari and Maleq, 2020; Oxley and Morris, 2013). Due to constant global events, crises and phenomena, GCED is evolving across societies and eras.

However, a working definition can potentially highlight that GCED is an intentional endeavour to boost the 21st century language learners' knowledge, skills and competencies to responsibly engage in addressing persistent challenges including social injustices, poverty, culture, politics, environmental issues and technological divide (UNESCO, 2014). Essentially, it advocates the pride of one's local culture and a human commitment towards values such as protecting the planet, tolerance and mutual respect (UNESCO, 2024a). Central to the core of GCED guidelines are the cognitive, socio-emotional and behavioral dimensions. GCED promotes opportunities to nurture one's knowledge and critical understanding of national, regional and international issues that are inevitably interconnected. It also helps shapes ethical values and humane attitudes of solidarity, empathy and living together in a peaceful world. Finally, it urges people from different backgrounds and walks of life to take responsible stances and actions towards global matters (UNESCO, 2015, 2024a).

Discourse about Global Citizenship Education

Reflections on a globalized world, which is increasingly characterized by xenophobic and racist attitudes, violation of human rights, omnipresent conflicts and wars, climate change challenges and pandemics, calls for resurgent attention and interest in GCED as an agent of global consciousness and competences. In this respect, a spectrum of insightful perspectives has recognized GCED as an emblem of global learning that should redefine the objectives of intentional education of the 21st century global citizen. According to Shaull (2000, p. 34),

> "[*T]here is no such thing as a neutral education process. Education either functions as an instrument…to facilitate the integration of generation into the logic of the present logic, or it becomes…the means by which men and women deal critically with reality and*

discover how to participate in the transformation of their world."

Essentially, education goes beyond merely being a medium of accreditation and access to the job market to equally infuse positive change and transformative measures for the good of the development of healthy societies locally and internationally (United Nations, 2012). In this prospect, GCED embodies the qualities of an intentional education that empowers the students to have a say about current issues and engage in constructing and reconstructing their realities. For O'Loughlin and Wegimont (2003, p.), "Global education is education that opens people's eyes and minds to the realities of the world, and awakens them to bring about a world of greater justice, equity and human rights for all." For instance, there are official documents that attempt to consolidate the implementation of GCED pedagogy as *Global Citizenship Education: Preparing Learners for the Challenges of the 21st Century* (2014), and Oxfam's (2015) *Education for Global Citizenship: A Guide for Schools.*

For GCED to become a multidimensional agenda, it has to be considered as a cornerstone of a new paradigm, whose major objective is the shift from addressing global issues only to establishing a tendency towards change of perspectives and mindsets (UNESCO, 2024b). Accordingly, policy makers, curriculum designers and schools are entitled to enhance and implement the values and core skills of GCED through a transformative pedagogy and lifelong pursuit of its goals (Mastellotto, 2023). Implementing GCED in different syllabi ethos promotes realistic learning objectives since it incorporates a plethora of real-life situations and methodologies for learning such as fighting the effects of greenhouse emissions; furthermore, it advances the development of meaning-making, critical thinking, and negotiation (Oxfam, 2015). According to Pownell, Birtill and Harris (2024), such integration boosts the students' reflection and questioning of their own beliefs and value systems, particularly if the debates bring students from various ideological backgrounds and cultural environments and immerse them in intercultural constructive exchange. Such atmosphere can be smoothly created in the language classroom.

GCED as a Legitimate Element of the Foreign Language classroom

Currently, English, as lingua franca, has maintained global interconnectedness and furthered cross-cultural dialogue (Hadley, 2023). Thus, The English language classroom is a promising venue to embed the ideals of GCED, so the students can develop essential competencies to participate in an interconnected, complex world and be critical of global issues. Recently, the underlying premises and principles of GCED are gaining momentum in English as a Foreign Language curricula (Chirciu, 2020) since the English language curricula, across educational levels, often tackles the content and skills of GCED including (Lourenço and Simões, 2021). Moreover, the foreign language atmosphere allows

transcending the self to nurture interconnected dialogue with the world beyond their communities (Díaz, 2017) in order to encourage the learners to be civic-minded, develop moral obligation and act responsibly for the good of other communities beyond theirs (Lütge, Merse and Rauschert, 2023). According to Hosack (2011), the language classroom can provide the students with miscellaneous opportunities to reinforce their knowledge of GCED via engaging activities. These activities can encompass content knowledge about global issues and unprecedented changes on earth and real-life practice via role-play, speeches, and communities of exploration, and projects to foster the instillation of these values in the future global individual.

The language classroom can be overarching in advancing transformative pedagogy via GCED to enhance the students' critical literacy regarding unprecedented challenges and global dilemmas. Andreotti (2010) calls for a critical pedagogy that predominantly aims at forging new perspective towards tackling GCED in the classroom with a critical lens that transcends current curriculum limitations. The ultimate goal is not, therefore, to merely emphasize knowledge that is barely grounded on soft themes and views of one particular group, rather GCED must be built on questioning and negotiating the sources of current inequalities and challenges to strive for a better future for all. Andreotti (2006) also refers to empowering the students to have their own path of reflexivity and building assumptions about the other contexts, cultures and issues to be able to transform their attitudes and decide whether to take action or not. Nevertheless, the implementation of GCED across curricula of EFL falls short of expectations. In her data-driven analysis study, Díaz (2017) concluded that although the Colombian standards for foreign languages, including English were designed based on the Common European Framework for Reference (CEFR) for primary, middle and secondary school levels, these standards barely represented the socio-emotional dimension, and the objectives of reading were not aimed to evoke a curiosity towards the themes of GCED. Ultimately, some standards can be modified by teachers to adhere to the scope of GCED in the English classroom.

In the Algerian context, GCED, as a concept and a practical dimension, is relatively new because it is not widely covered in teaching English. For instance, findings of some case studies across Algerian universities suggested that the majority of lecturers were not familiar with GCED underlying principles and the appropriate measures of efficient implementation across curricula for the development of a global citizens (Hadjeris and Khoualdi, 2019; Khaldi, 2021). Similarly, though some teachers have positive attitudes towards GCED, few dimensions are incorporated in university curricula (Boukhelouf, 2022). Conversely, Boucenane and Lakhal's (2022) content analysis of three official documents: *The National Education Framework Reference (2008)*, *the Methodological Guide for Curriculum Design (2009)*, and *the General Curriculum Reference (2009)* in relation to advancing the

implementation of GCED in primary, middle and secondary education indicates that Digital Global Citizenship Education and the social and emotional dimension are predominantly emphasized throughout the documents in comparison with other dimensions (political, economic and religious), which are moderately represented. In this prospect, it is of paramount importance to investigate whether GCED ideals are practically embedded in English language textbooks to entitle the students to be critical global citizens.

Methodology

Design, Data Collection Methods and Procedures

This study relies on the content analysis of the Algerian secondary education textbook *New Prospects, Year Three* (Arab, Riche and Bensemmane, 2008). This textbook is addressed for the streams of letters and philosophy and experimental sciences. The textbook comprises six units of instruction and covers a variety of local and global themes. The major criterion for the selection of this textbook is the researchers' familiarity with the textbook since they were secondary education teachers. Similarly, the textbook is designed based on the recommendations of the National Education Framework Reference (2008), the Methodological Guide for Curriculum Design (2009), and the General Curriculum Reference (2009) regarding the implementation of GCED across curricula, syllabi and textbooks.

Primarily, the content analysis is based on the qualitative analysis of the GCE themes across the six units of instruction via meticulous scanning of content. The scanned elements are images, activities, texts and rubrics including listen and consider, grammar explorer, vocabulary explorer, pronunciation and spelling, read and consider; think, pair, share; research and report; listening and speaking; reading and writing, and project outcome. Hence, a content analysis checklist was developed based on Sharma's (2018) GCED framework and UNESCO's (2015) framework for sustainable development. It includes the following themes:

1. Advocating an interdependent outlook towards current global issues.
2. Developing an awareness of global warming and climate change.
3. A commitment to responsible and sustainable lifestyle.
4. A commitment to promote a culture of peace, appreciate cultural diversity, gender equity and local culture contribution to sustainable development.

Once the themes were established, the researchers created a detailed codebook. The themes codes are the definitions and the examples that may fall under one of the themes (Eg., sustainable lifestyle= encouraging minimalism, investing in renewable energies, not embracing fast fashion…) and competencies codes highlight the criteria of identifying knowledge, attitudes, values and skills (e.g.,

knowledge= a text provides information about a global issue such as child labour, genetically-modified food, advertising and overconsumption. Skills (Action= the learners should design a project outcome about reducing plastic waste and recycling). The researchers broke the texts and the activities into smaller units, so the units of extracting meaning were sentences (across paragraphs) and words (vocabulary and pronunciation (Weber, 2004).

To test the codebook to refine the themes and the definitions, the researchers separately coded 30 rubrics (images, texts and tasks) from different units of instruction.

Research Results

The quantitative analysis of the GCE themes results in the identification of 99 topics. Table 1 highlights the percentages of representing the extracted themes from Sharma's (2018) and the UNESCO's (2016) frameworks.

Table 1. The identification of GCE themes across *New Prospects* textbook

Sub-topics (n=99)	**Number**	**Percentage**
Human interdependence	03	2.97%
Climate change	08	7.92%
Sustainable lifestyle	17	16.83%
Culture's contribution to sustainable development	01	0.99%
Promoting peace and non-violence	03	2.97%
Human Rights	07	6.93%
Appreciating cultural diversity	49	48.51%
Appreciating local culture and history	11	10.89%

Table 2 illustrates how Global Citizenship Education competencies are highlighted across the textbook namely: developing the students' knowledge about local, global and intercultural issues (Knowledge), developing the students' positive attitudes and tolerance and world views of others (Attitudes), helping the students engage in discussions across diverse cultures (Values), and finally empowering the students to take action towards collective issues and sustainable development (Skills) (PISA, 2018).

Table 2. The distribution of GCED competencies across the units of teaching

Units	Number of competencies
Ancient Civilizations	36
Ethics in Business	20
Schools: Different and Alike	17
Safety First	14
It's a Giant Leap for Mankind	1
We Are a Family!	7

Table 3 displays the distribution of the PISA (2018) four competencies across the rubrics of the textbook namely: getting started (commenting on pictures), around the text (Grammar explorer), vocabulary explorer, pronunciation and spelling, think, pair, share (written production), read & consider, listen & consider, and finally the project outcome.

Table 3. The distribution of global competencies

	Knowledge	Skills	Attitudes	Values
Ancient Civilizations	17	1	11	6
Ethics in Business	2	9	3	6
Schools: Different and Alike	6	2	8	1
Safety First	3	1	8	2
It's a Giant Leap for Mankind	///	//////	/////	1
We Are a Family	////	/////	/////	8
Total	**28**	**13**	**30**	**24**

Table 4 highlights the integration of the themes of GCED across language skills by scanning the activities.

Table 4. The distribution of GCED themes across skills

	Receptive Skills	Linguistic Skills	Productive Skills
Ancient Civilizations	12	11	12
Ethics in Business	4	5	10
Schools: Different and Alike	4	4	10

Safety First	1	2	11
It's a Giant Leap for Mankind	////	////	1
We Are a Family	4	2	2
Total	**25 (26.31%)**	**24 (25.26%)**	**46 (48.42%)**

Discussion

The results of this research study indicate that the textbook *New Prospects (3AS)* incorporates a substantial range of the themes of global citizenship education that are in line with the UNESCO's endeavour to advance its 2030's vision about the goals of sustainable development. Dominant themes such as appreciating cultural diversity, sustainable lifestyle and appreciating local cultural are embodied topics throughout the rubrics of the textbook in reference to the Algerian National Educational Guide (2009), which called for the implementation of the principles of GCED across curricula and textbooks of foreign languages. Fundamentally, the rubrics tackle topics that falls in the field of the contributions of difference civilizations to the prosperity of Mankind throughout different periods of history in an attempt to spread an endeavour to embrace interdependence between cultures, religions, and races in various fields (science, medicine, astronomy, philosophy, and mythology). Other themes such as human interdependence, climate change and spreading a culture of peace and non-violence are not widely recognized in this textbook since they are predominantly covered in the textbook *Getting Through (2AS)* (Sahli and Belaid, 2022).

Similarly, the content analysis of the textbook reveals that the competencies of Global Citizenship Education are embedded throughout the rubrics in which the dimensions of attitudes, values and knowledge are highly represented. The reason for such high percentages of representation is to equip the students with a solid knowledge of the sub-themes of GCED and help them construct their value and ethical system with regard to GCED. This fact is addressed via themes like child labour, conservation of human and natural resources, fighting counterfeit and fast fashion, fighting pollution and global warming, and advancing education around the world. The least represented competency is the skill competency, which invites the learners to take action towards making a change regarding sustainable development or current issues. This is may be due to the tendency to educate the learners about GCED since they are still in foundational stages of their learning of English, and they have not yet covered all the dimensions of GCED.

As far as the distribution of the competencies across the skills (receptive, productive or linguistics) is concerned, the productive skills via the rubric of writing: think, pair, share top the list

since the learners are required to develop their arguments and defend their opinions. The learners are required to demonstrate their ability in writing argumentative essays about current GCED issues like overconsumption, advertising and sustainable lifestyle, and ethical matters; besides, this rubric is essential, as the learners should be equipped with the appropriate writing skills necessary for their written Baccalaureate Examination.

A close examination of the themes of GCED in this textbook highlights a tendency towards soft approach instead of a critical approach in the selection of the nature of the topics. A soft approach focuses on global solidarity and cosmopolitan perspectives towards issues by fostering intercultural awareness, encouraging charity and individual moral obligation towards global challenges (Oxley and Morris, 2013). A text, for instance, includes an image of child labour; however, the text does not echo critical dimensions such as injustice, inequality and complex structural systems in societies. It simply highlights the functions of social auditing agents overseas; instead, it could have relied on the critical dimension to discuss this issue since it would question social injustices by highlighting the roots of these problems through the lens of decolonial thought, change and transformative pedagogy (Andreotti, 2006). All the rubrics call provide definitions and explanations of GCED without initiating any debates about their roots or evoking their historical, political or economic backgrounds. One reason to adopt the soft approach is to familiarize the learners with the notions of GCED instead of engaging them in questioning the hidden agendas of these themes.

Moreover, the formative years of studying a foreign language ought to advance the intercultural competence that nourishes tolerance, mutual understanding and promote a culture of human interdependence. In advanced levels of education, the teachers may engage the learners in discussing GCED from a critical perspective. The findings chime with previous studies (Sahli and Belaid, 2022; Yann-Ru, 2017; Al-Jamal and Al-Refae'e, 2016) indicating that the principles and competencies of GCED are represented in the secondary education textbooks; however, it contradicts other studies in the Algerian context in which GCED is still considered marginal by teachers and not well-implemented across curricula (Khaldi, 2021; Díaz, 2017).

Conclusion

In a nutshell, this textbook substantially spans the themes of GCED throughout its texts and rubrics and across its skills. Essentially, if these components are taught via the lenses of GCED, then the students can be empowered to embrace and internalize the ideals of GCED in a supportive environment that cherish noble human values.

This study scrutinized an English language textbook in the Algerian context to identify the

representation of the themes and competencies of GCEDD via a combination of UNESCO's (2015) and Sharma's (2021) frameworks, and PISA (2018) dimensions of the global competencies. After scanning six units of instruction, the results indicated that the textbook considerably incorporated GCED themes and competencies, particularly via the productive skill of written production; however, the teachers of English may reinforce GCED themes by incorporating content and activities that rely on advancing the critical approach along with the already well-grounded soft approach.

It is suggested that the teachers should supplement the contents of the textbook via including less covered Global Citizenship Education themes such as human interdependence to face global issues and the contribution of local culture to sustainable development. Additionally, the writing and speaking rubrics should tackle critical aspects on power dynamics regarding issues like the crisis of illegal immigration and refugees, advertisement and irresponsible consumption via role-plays and speeches. Since the world is a small village thanks to online communication, the teachers may opt for electronic twinning with foreign schools to join efforts and work on projects that reflect the ideals of Global Citizenship Education. For example, both classes may collaborate on a project entitled Small Steps, Global Impact. Both groups of students should track their carbon footprints, waste reduction and their daily efforts to save energy for two weeks. Then data should be compared, and good practices should be highlighted and recognized. Finally, both groups should collaborate online to create an ecology manifesto for future generation.

Conflict of Interest Statement

The author declares no conflicts of interest.

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Understanding Last-Mile Learners' Motivation in English Language Learning Toward Developing the MOTIVE Framework

ABSTRACT

Motivation plays a crucial role in successful language learning, especially among last-mile learners who face distinct barriers due to geographic isolation and limited access to educational resources. This study aims to understand the key factors influencing English language learning motivation among last-mile learners, serving as a foundation for developing the MOTIVE Framework. The participants, primarily female students aged 13 to 14, predominantly speak Cebuano as their heritage language and prefer Filipino as the medium of instruction. Many come from low socioeconomic backgrounds typical of last-mile communities. Findings reveal that students' motivation is shaped by a range of personal and contextual factors, with varied associations observed. Pearson's correlation analysis indicates no significant relationship between age and personal factors. Gender and grade level show some correlations with motivational components, but these are not consistent. Other sociodemographic variables, such as heritage language, preferred medium of instruction, parents' education, occupation, and income, generally show no significant correlation with motivation. These results highlight the need for learner-centered approaches that address individual experiences, preferences, and challenges in order to foster motivation and support English language learning among last-mile learners.

Keywords*: English Language Learning, Heritage Language, Motivational Factor, Socioeconomic Status*

Introduction

Language is the foundation of all communication and the primary medium through which thoughts are expressed (Khan, 2017). Among the many languages spoken worldwide, English stands out as a global lingua franca essential for education, commerce, and international exchange. Despite the various strategies employed by educators, teaching English remains a challenging endeavor—particularly in remote settings—due to learners' varying attitudes and levels of motivation (Domingo, 2020).

Stephen Krashen's Affective Filter Hypothesis posits that motivation is one of the key affective variables that significantly influences second language acquisition, alongside anxiety and self-confidence (Krashen, 1982). Whether intrinsic or extrinsic, motivation fuels learners' engagement, persistence, and eventual success in mastering language skills (Zhao, 2012). Motivated learners are more likely to participate actively and achieve academic gains, while those who lack motivation often

show diminished effort and poorer performance.

Sustaining learners' motivation, however, is particularly difficult in marginalized and underserved contexts. Last-mile learners—those studying in geographically isolated schools with limited access to educational resources—face added layers of difficulty that affect their drive to learn (UNESCO, 2020). These challenges include socioeconomic struggles, lack of parental support, and inadequate exposure to the English language. Understanding what drives or hinders motivation in these contexts is essential for meaningful educational intervention.

This study was conducted in Hinandayan National High School, a last-mile school located in the mountainous area of Nasipit, Agusan del Norte. As a remote public secondary school, it represents a learning environment where motivational factors are likely influenced by a complex mix of personal, teacher-related, and parental elements. While previous research (e.g., Ayub, 2010; Nguyen, 2019) has addressed student motivation in general, little attention has been paid to how these factors operate in last-mile contexts, particularly in English language learning.

Thus, the primary aim of this study is to explore the underlying factors affecting the English language learning motivation of learners in this context. Specifically, it describes the demographic profile of learners and examines whether these profiles have significant relationships with key motivational factors. The findings are intended to inform stakeholders—including teachers, parents, school heads, and curriculum developers—on how to better foster motivation among last-mile learners. Moreover, this study serves as a foundation for developing the MOTIVE Model Framework, a contextualized and responsive approach to enhancing learner motivation in similar educational environments.

Theoretical Framework

There were three motivational theories anchored in this study, namely: Attribution Theory, Self-Determination Theory, and Self-efficacy Theory. These theories provide a framework to better understand the factors that influence learners' English learning motivation.

Attribution Theory (B. Weiner)

According to Weiner (2010), Attribution theory is concerned with the perceived causes of success and failure for both the self and others. It assumes that people want to understand why an event or behavior occurred (Hopper, 2018). For instance, when people fail to perform a certain task, they would attribute it to a certain thing and/or others. In the context of the learners, according to this theory, learners tend to explain their reasons for success or failure based upon three attributions and one of these is internal

or external attribution.

In the study conducted by Mohammadi and Sharififar (2016), it was found that EFL students attribute their achievements to external more than internal factors in the process of learning English. The results of their study also revealed that there were significant differences between males and females in ability as an internal attribution and luck as an external attribution, wherein, male students tend to attribute their success and failure to ability more than female students while females attribute their success and failures to luck more than male learners.

Self-Determination Theory

Self-determination Theory was developed by Edward Deci and Richard Ryan. According to Deci and Ryan (2012), Self-determination Theory (SDT) is an empirically derived theory of human motivation and personality in social contexts that differentiates motivation in terms of being autonomous and controlled. This theory can be incorporated into teaching through various strategies such as supporting autonomy, encouraging relatedness, and cultivating competence.

According to Niemiec and Ryan (2009), self-determination theory (SDT) assumes that inherent in human nature is the propensity to be curious about one's environment and interested in learning and developing one's knowledge. For instance, one may want to learn how to speak a particular language including the grammatical rules and the correct way of pronouncing the words of that language. It also suggests that people are motivated to grow and change by three innate and universal psychological needs, namely: autonomy, competence, and relatedness. Hence, in the context of the learners, the teachers need to discover and apply various ways to help the learners meet these psychological needs.

Self-efficacy Theory

The concept of Self-efficacy was developed by Albert Bandura. Bandura (2000) believes that self-efficacy is the confidence in one's ability to plan and carry out the strategies necessary to manage potential situations. It emphasizes an individual's confidence in their ability to complete a task or achieve a goal (Hopper, 2021). Hence, when learners lack confidence in their abilities, they would not be able to perform their tasks and or master their skills.

According to Cherry (2022), self-efficacy is important because it plays a role in how we feel about ourselves and whether or not we successfully achieve our goals in life. People with a strong sense of self-efficacy develop a deeper interest in the activities in which they participate while people

with a weak sense of self-efficacy believe that difficult tasks and situations are beyond their capabilities. In the context of the learners, if they don't have the belief in their capability to perform a certain task, they would certainly fail to execute the skills and/or competencies expected from them.

By integrating these three motivational theories, this study sought to understand the factors influencing learners' motivation to learn English and how educators can help the learners overcome the challenges to enhance their learning experience.

Method

Objectives of the Study

This study aimed to examine the extent of motivation among last-mile learners in English language learning, with particular focus on the contributing factors—namely personal, teacher-related, and parental influences. The insights generated from this investigation will serve as a basis for developing the MOTIVE Model Framework.

Specifically, the study sought to:

1. Describe the demographic profile of the respondents in terms of age, sex, grade level, heritage language, preferred medium of instruction, parents' educational attainment, occupation, and combined monthly income;
2. Determine the extent of motivation of the last-mile learners in learning the English language
3. Examine the relationship between learners' demographic profile and the extent of their English language learning motivation.

Research Design

The study employed a descriptive-correlational research design. The study utilized a researcher-made survey questionnaire which consisted of two parts. Part 1 determined the demographic profile of the participants in terms of age, sex, grade level, heritage language, preferred medium of instruction, and the socioeconomic status of the parents. On the other hand, part 2 identified the extent of students' motivation.

Participants

There were 140 Junior High School students at Hinandayan National High School Main Campus. For administrative considerations, only 75% of the total population were included as participants, resulting

in a sample size of 105 students. To ensure representation from each grade level, stratified sampling was employed. The researcher obtained the list of students from each Grade Level Adviser and assigned codes to each student's name. Participants were then randomly selected by drawing these codes, with the drawn names considered as the study participants.

Table 1. Sample Population

Grade Level	Population	Sample
7	35	26
8	30	23
9	36	27
10	39	29
TOTAL	**140**	**105**

Research Instrument

The study utilized a researcher-made survey questionnaire which consists of two parts. The first part was all about the demographic profile of the participants which contained the respondents' age, gender, mother tongue and others. The second part was all about the factors of language learning motivation, namely: personal factors, teachers' influence, and parental influence. Before formulating the research questionnaire, the researcher first reads different researches to ensure that the questions to be formulated are appropriate and relevant.

To ensure the validity and reliability of the research questionnaire, the researcher submitted a copy of the self-made questionnaire to the panel of experts whose expertise are relevant to English language teaching. After retrieving comments and suggestions from the experts, the researcher revised the questionnaire. It was then pilot-tested to 32 students. The data were tallied and analyzed by a statistician for its reliability coefficient. The result of the reliability test shows that the research instrument is reliable.

Results and discussion

Objective 1. Demographic profile of the participants

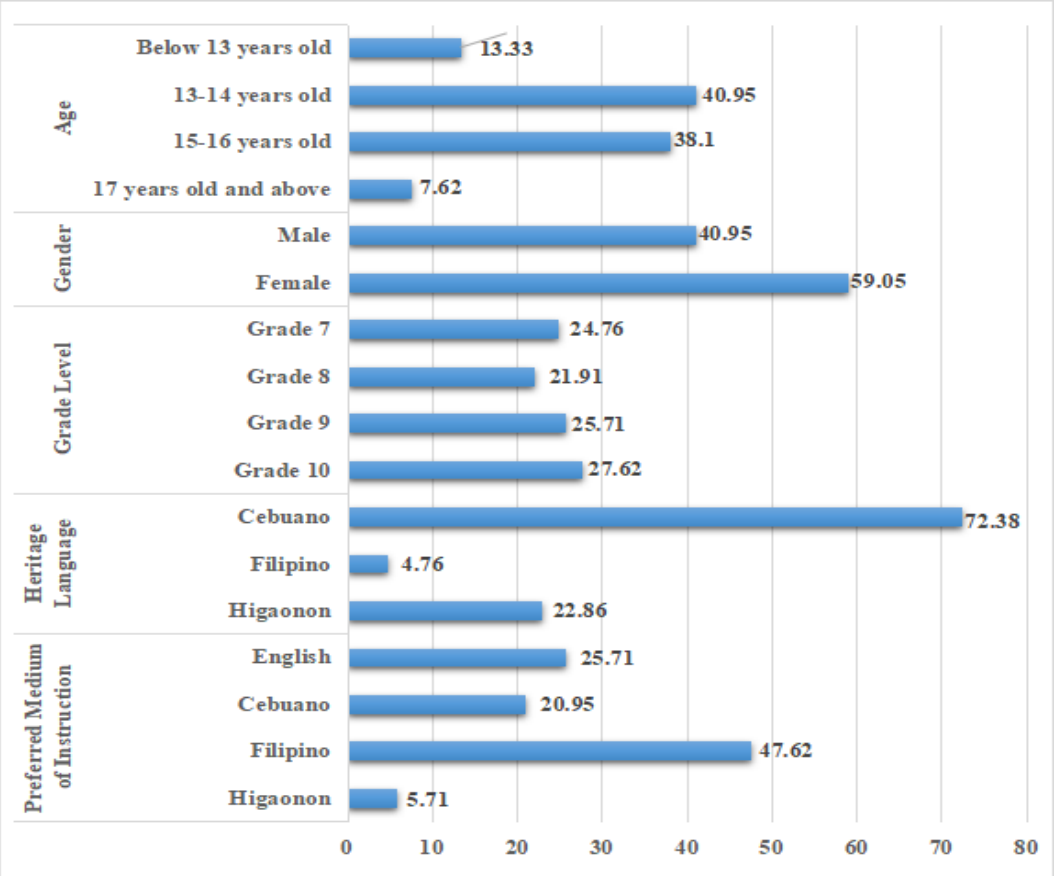

Figure 1. Personal Profile distribution (%) of the participants.

Figure 1 shows the demographic profile of the participants in terms of age, gender, grade level, heritage language and preferred medium of instruction.

In terms of age, it can be seen that 40.95% of the participants are ages 13-14. It is followed by ages 15-16 which is 38.1%. It can also be noted that 13.33% are below 13 years old while only 7.62% are ages 17 and above. This implies that majority of the participants are still young and are very much motivated to go to school in order to learn.

In terms of gender, it is notable that 59.05% of the participants are females while only 40.95% are males. Ritchie (2019) reported that in every country, births are male-based, hence, it is expected that males will also dominate the schools in terms of population. However, in this study, the majority of the participants are females. One possible reason for this is the gender stereotypes held by various stakeholder groups in foreign language schools (Davis-Kean et al., 2021).

In terms of grade level, we can see that 27.62% of the participants are from Grade 10. It is followed by Grade 9 which is 25.71%. On the other hand, 24.76% of participants are Grade 7 while only 21.91% are from Grade 8. This implies that majority of the participants are dominated by the

Grade 10 students.

In terms of heritage language, we can see that Cebuano is the heritage language of the majority of the students which is 72.38% while Higaonon as their heritage language is 22.86%. On the other hand, only 4.76% are of Filipino Heritage. Noels (2005) found that heritage language learners were more likely to learn German than non-heritage language learners because it was a significant part of their self-concept. Similarly, the participants of this study will more likely to learn English because it is an essential part of their education process as well.

In terms of the preferred medium of instruction, it can be noted that 47.62% of the participants prefer Filipino as their medium of instruction. It is followed by English which is 25.71%. On the other hand, 20.95% prefers the use of Cebuano while only 5.71% prefers Higaonon. This implies that the students have their language preferences in learning and it can be noted that the majority's preferred medium is Filipino. This finding is in consonance with what Soruç and Griffiths (2018) stated in the study they conducted about English as a medium of instruction: Students' strategies. Findings of the study revealed that students try to learn the subject matter by means of using a non-native language. Thus, language teachers have to consider these preferences because effective language teaching and learning can only be achieved when teachers are aware of their learners' needs, capabilities, potentials, and preferences in meeting these needs (Bada and Okan, 2000).

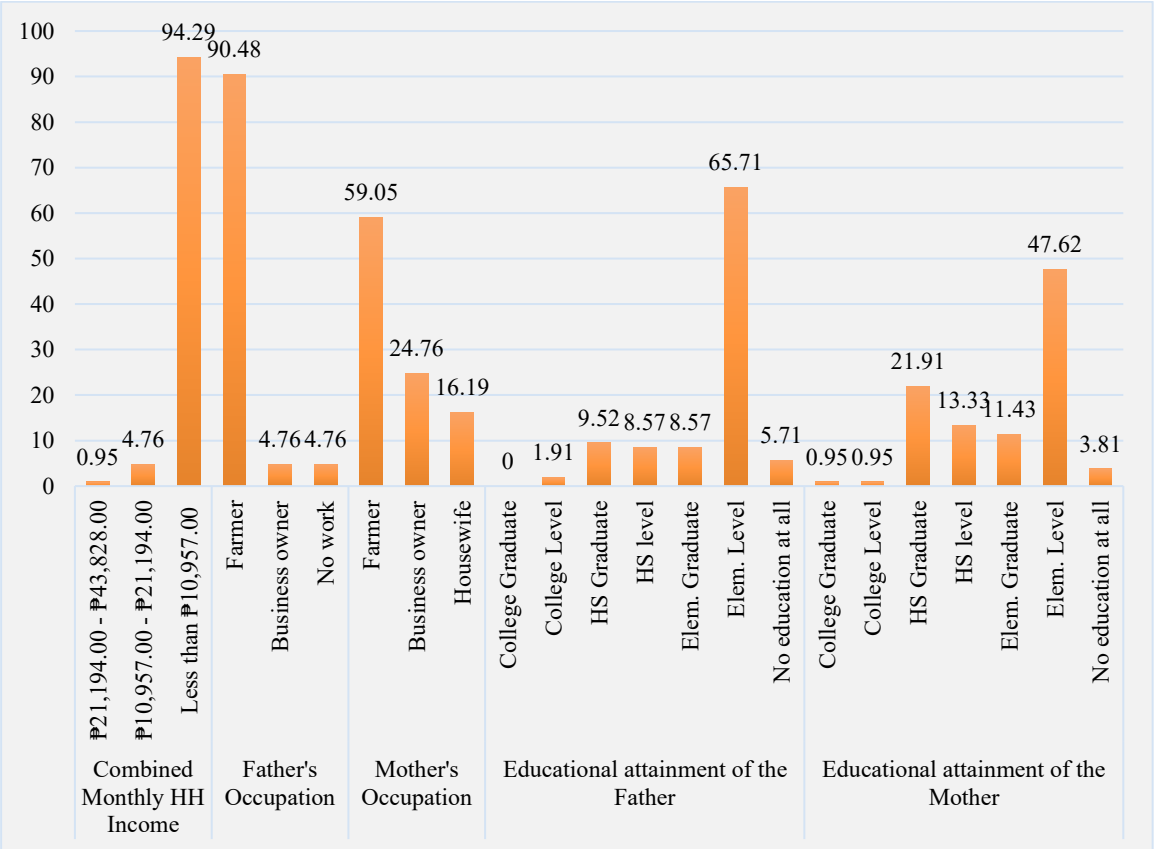

Figure 2. Socioeconomic status of the parents

Figure 2 shows the socioeconomic status of the parents. In terms of the highest educational attainment of the parents, 47.62% of the mothers are elementary level, thus indicating that they did not finish the basic education while only 0.95% of them were able to finish college. On the other hand, it is shown that the majority or 65.71% of the fathers have only reached elementary level while none of them was able to finish college. This finding implies that the parents' educational attainment can affect the behavior and attitude of the students at school. This is in consonance to the findings of Davis-Kean et al. (2021) which revealed that parental educational attainment lays a foundation for children's academic success by way of the expectations and beliefs that parents have for them, as well as the mental stimulation that parents offer both inside and outside the home.

In terms of the parents' occupation, it can be seen that the majority or 59.05% of the mothers are working as farmers, 24.76% are doing business while 16.19% are housewives. On the other hand, the figure shows that the majority or 90.48% of the fathers are working as farmers, 4.76% are doing business, while 4.76% are not working. The majority's occupation implies that they rely on agriculture. When farming fails, there is a tendency that they won't be able to provide for their children. As a result, this could affect their children's motivation and self-concept. This finding is similar to the result of the study conducted by Khan (2017), wherein, it was found that children's self-concept was consistently and favorably impacted by their parents' occupation.

In terms of the combined monthly income, it can be seen that the majority or 94.29% of the parents are earning an amount lesser than ₱10,957.00 which can be considered as a low income. When parents have a low income, providing for the educational needs of their children would be difficult. This finding supports the claim of Zahid and Ashfaq (2022) wherein they emphasized that the role of parents' income is the most crucial factor in the process of learning English language as the learners spend most of their time with their parents since childhood. Furthermore, in the study conducted by Buriro et al. (2015), it was found that the higher the socio-economic status and the more stable a student's socio-economic background, the more motivated they were to learn English. However, in this study, the majority's socioeconomic status can be described as low.

Objective 2. Extent of language learning motivation of the students

Table 2. *Mean distribution of the extent of language learning motivation*

Personal Factors		**Extent of motivation**		**Interpretation**
Indicators		**Mean**	**Description**	
1	I consider the English language interesting and challenging to learn.	4.32	Agree	High
2	I enjoy listening to English language discussions.	4.24	Agree	High
3	I like to speak English while interacting with other people.	3.50	Agree	High
4	The English language allows me to freely express	3.15	Neither agree	Moderate

	my thoughts or opinions, or both about a certain issue.		nor disagree	
5	Studying the English language helps me get ahead of others.	3.29	Neither agree nor disagree	Moderate
6	By learning English, I can pass tests which will give me opportunities to work abroad.	4.18	Agree	High
7	I become confident to speak when using English language.	3.32	Neither agree nor disagree	Moderate
8	I become confident to write using the English language.	3.43	Neither agree nor disagree	Moderate
9	I want to improve my communication skills using the English language.	3.84	Agree	High
10	I want to learn English in order to communicate with those who speak English.	4.62	Strongly Agree	Very High
11	I want to learn English because it is the main medium of instruction of all educational levels.	4.67	Strongly Agree	Very high
12	Learning English helps me improve my vocabulary.	4.65	Strongly Agree	Very High
13	Learning English would help improve my reading comprehension skills.	4.48	Agree	High
14	Learning English makes me proud of myself.	4.41	Agree	High
15	Learning English helps me become a critical thinker.	3.90	Agree	High
Overall Weighted Mean		**4.00**	**Agree**	**High**

Range of means: 1.00-1.49 Strongly Disagree; 1.50-2.49 Disagree; 2.50-3.49 Uncertain; 3.50-4.49 Agree; 4.50-5.00 Strongly Agree

Table 2 shows the mean distribution of the extent of learners' language learning motivation in terms of personal factors.

As gleaned from the table, it can be noted that indicator 11, which states that learners want to learn English because it is the main medium of instruction of all educational levels, garnered the highest weighted mean of 4.67 which can be interpreted as very high. This shows that learners are very motivated to learn English because they know that English is not only a subject taught at school but also a medium used in teaching. This also implies that learners are aware of the importance of English in their education.

These findings supported Bani-Khaled's (2014) study noting that students believe that learning English is an important part of their education. However, in the study conducted by Kırkgöz (2014) about Students' perceptions of English language versus Turkish language used as the medium of instruction, it was found that students have difficulty in understanding disciplinary knowledge and in understanding specific details when the medium of instruction used is English.

Second to the highest is indicator 12 which states that learning English helps improve the learners' knowledge of vocabulary. This indicator has a weighted mean of 4.65 which can be described as very high. This shows that the learners believe that learning English would help them improve their

knowledge of vocabulary.

On the other hand, indicator 4 which states that English language allows the learners to freely express their thoughts or opinions, or both about a certain issue got the lowest weighted mean of 3.15 interpreted as moderately motivating. This implies that learners have the desire to express their opinions through English but are having difficulties or challenges in doing. This finding supports the result of the study conducted by Horne (2010) on students' reflections on the expression of opinions in discussion in English wherein, students were found to be able to voice their opinions, but there was a gap between what they wanted to say and how much they were actually able to say and create a discussion.

The overall weighted mean of the extent of motivation of the students in terms of personal factors is 4.00 which can be interpreted as high. This means that the learners are personally motivated to learn English because they are aware of the importance and benefits of learning English. This is also a manifestation that they wanted to develop competence among themselves.

According to the study conducted by Sengkey et al. (2018), the preference of students to learn English was possibly related to their future success prospects. Self-determination theory explains that three basic universal psychological needs—autonomy, competence, and relatedness—drive human growth and change. Thus, there is no doubt why the student-participants in this study have high personal motivation and determination to learn English because they felt that learning English would help them to be competent in communicating English for future significant linkages.

Objective 3. Significant relationship between the respondents' demographic profile and the factors affecting their English language learning motivation

Table 3. *Significant relationship between age and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Age	Extent of motivation	-0.006	0.955	Very weak and negative	Not significant

*Legend: [a] tested using Pearson's r correlation test; -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 3 shows the significant relationship between the age and the extent of learners' motivation.

As shown in the table, age and the extent of motivation have a very weak and negative relationship and are not statistically significant at α = 0.05. This suggests that as learners grow older, their motivation to learn English tends to decrease. This finding is consistent with the results of the study conducted by Bećirović and Hurić-Bećirović (2017), which found that ten-year-old students exhibited the highest motivation for learning English as a second language, whereas eighteen-year-olds showed the lowest.

Similarly, Ghenghesh (2010) found that students' motivation to learn a second language declines with age, attributing this decline to teaching practices and lesson content. These insights highlight the importance of teachers employing engaging and responsive strategies to help sustain students' motivation as they progress in age.

Table 4. *Significant Relationship between gender and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Gender (Female)	Extent of motivation	0.069	0.485	Very weak and positive	Not significant

*Legend: [a] tested using Point-biserial correlation test (Pearson's r); -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 4 shows the significant relationship between the sex and the extent of learners' motivation.

As presented in the table, the extent of motivation among the dominant gender is not statistically significant at α = 0.05, with a very weak and positive relationship, indicated by a p-value of 0.485. This finding aligns with the study of Becirovic (2017), which revealed that gender has a significant effect on students' motivation to learn English—specifically, female students were found to be more motivated to learn English as a foreign language compared to male students.

However, this contrasts with the findings of Zayyana et al. (2022), which showed that male students generally exhibit higher levels of intrinsic and integrative motivation than female students.

Table 5. *Significant Relationship between grade level and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Grade level	Extent of motivation	-0.126	0.199	Weak and negative	Not significant

*Legend: [a] tested using Pearson's r correlation test; -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 5 shows the significant relationship between the grade level and the extent of motivation along with personal, teacher, and parental factors.

As shown in Table 7, the grade level of the students and the extent of their motivation have a weak and negative relationship, with a correlation coefficient of -0.126, and this relationship is not statistically significant at α = 0.05.

This result aligns with the findings of Nayir (2017), which revealed that tenth-grade students exhibited higher levels of both intrinsic and extrinsic motivation compared to twelfth-grade students, while eleventh-grade students demonstrated greater motivation than both tenth and twelfth graders.

Table 6. *Significant Relationship between heritage language and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Heritage language (Cebuano)	Extent of motivation	-0.024	0.806	Very weak and negative	Not significant
Heritage language (Higaonon)	Extent of motivation	0.071	0.472	Very weak and positive	Not significant

*Legend: [a] tested using Point-biserial correlation test (Pearson's r); -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05.*

Table 6 shows the significant relationship between the heritage language and the extent of learners' motivation.

As shown above, the relationship between the Cebuano heritage language and the extent of learners' motivation is very weak and negative, with a correlation coefficient of -0.024, and is not statistically significant at α = 0.05. Similarly, the relationship between the Higaonon heritage language and the extent of motivation is also very weak but positive, with a correlation coefficient of 0.071, and likewise not significant at α = 0.05. Overall, these results indicate that the learners' heritage language—

whether Cebuano or Higaonon—does not have a significant relationship with their motivation to learn English.

This suggests that learners are motivated to study English not because of their linguistic background, but rather due to the perceived benefits of learning the language or the positive experiences they gain from the learning process (Wen, 2011).

Table 7. *Significant relationship between preferred medium of instruction and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Preferred Medium of Instruction (English)	Extent of motivation	-0.050	0.610	Weak and negative	Not significant
Preferred Medium of Instruction (Cebuano)	Extent of motivation	0.035	0.724	Very weak and positive	Not significant
Preferred Medium of Instruction (Filipino)	Extent of motivation	-0.023	0.819	Very weak and positive	Not significant

*Legend: [a] tested using Point-biserial correlation test (Pearson's r); -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 7 shows the significant relationship between the preferred medium of instruction and the extent of learners' motivation.

Based on the table above, the relationship between English as the preferred medium of instruction and the extent of motivation is weak, with a correlation coefficient of -0.050, and is not significant at $\alpha = 0.05$. Similarly, the relationship between Cebuano as the preferred medium of

instruction and the extent of motivation is very weak and positive, with a correlation coefficient of 0.035, and also not significant at $\alpha = 0.05$. Additionally, the relationship between Filipino as the preferred medium of instruction and the extent of motivation is very weak and negative, with a correlation coefficient of -0.023, and likewise not significant at $\alpha = 0.05$.

Overall, these findings suggest that students' preferred medium of instruction does not have a statistically significant relationship with their motivation to learn English. Nevertheless, they underscore the importance of recognizing learners' language preferences. Doing so can contribute to a more inclusive and responsive English language teaching and learning environment (Bada & Okan, 2000).

Table 8. *Significant relationship between parents' educational attainment and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Mother's educational attainment	Extent of motivation	0.033	0.738	Very weak and positive	Not significant
Father's educational attainment	Extent of motivation	-0.152	0.122	Weak and negative	Not significant

*Legend: [a] tested using Pearson's r correlation test; -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 8 shows the significant relationship between the parents' educational attainment and the extent of learners' motivation.

Based on the projected data on mothers' educational attainment, its relationship with the extent of learners' motivation is very weak and positive, with a correlation coefficient of 0.033. In terms of fathers' educational attainment, the relationship is weak and negative, with a correlation coefficient of -0.152.

Overall, the educational attainment of the parents shows no statistically significant relationship with the extent of learners' motivation at $\alpha = 0.05$. This suggests that students' motivation to learn

English is not significantly influenced by their parents' level of education. This finding contrasts with the results of Iwaniec's (2020) study, which found that students whose parents had lower levels of education tended to be less motivated.

Table 9. *Significant relationship between parents' occupation and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Mother's Occupation (Farmer)	Extent of motivation	0.171	0.082	Weak and positive	Not significant
Father's Occupation (Farmer)	Extent of motivation	0.029	0.770	Very weak and positive	Not significant

*Legend: [a] tested using Point-biserial correlation test (Pearson's r); -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 9 shows the significant relationship between the occupation of the parents' and the extent of motivation of the learners.

With regard to mothers' occupation, the table indicates a weak and positive relationship with the extent of motivation, with a correlation coefficient of 0.171. For fathers' occupation, the relationship is very weak and positive, with a correlation coefficient of 0.029.

Overall, both parents' occupations have no statistically significant relationship with the learners' extent of motivation at $\alpha = 0.05$. These findings align with the results of Arib (2017), who concluded that parents' occupation does not significantly influence students' motivation to learn English. This suggests that learners remain motivated regardless of their parents' professional backgrounds. However, this finding contradicts the study of Muslim et al. (2020), which found a significant relationship between students' motivation and their parents' occupation, indicating that occupational factors may influence learners' motivation in certain contexts.

Table 10. *Significant relationship between the parents' combined monthly income and the extent of language learning motivation*

Variable 1	Variable 2	Correlation Coefficient[a]	p-value	Relationship	Significance
Combined HH monthly income	Extent of motivation	-0.024	0.809	Very weak and negative	Not significant

*Legend: [a] tested using Pearson's r correlation test; -1.0 to -0.5 or 1.0 to 0.5 strong relationship; -0.5 to -0.3 or 0.3 to 0.5 moderate relationship; -0.3 to -0.1 or 0.1 to 0.3 weak relationship; -0.1 to 0.1 none or very weak relationship; * significant at α=0.05*

Table 10 shows the significant relationship between the parents' combined monthly income and the extent of learners' motivation.

As shown in the table, the relationship between the parents' combined monthly income and the extent of motivation is very weak and negative, with a correlation coefficient of -0.024, and is not significant at α = 0.05, with a p-value of 0.089. This indicates that the parents' income does not have a statistically significant relationship with the learners' motivation to learn English. Therefore, any observed variation in motivation cannot be confidently attributed to differences in household income.

This finding contradicts the study conducted by Melati (2019), which revealed a positive and significant correlation between socioeconomic status and students' learning motivation. In Melati's study, students from higher-income families tended to show higher levels of motivation. The inconsistency between the findings suggests that other contextual factors, such as cultural values or school support systems, may mediate the relationship between socioeconomic status and student motivation.

Objective 4: Hierarchical MOTIVE Framework

Rationale:

The MOTIVE Framework is grounded in the empirical findings of this study, which revealed the complex and multilayered factors influencing learners' motivation to learn English. At the foundation lies Multilingual Scaffolding (M), which recognizes the critical role of learners' heritage languages (such as Cebuano and Higaonon) and preferred instructional languages (Filipino) in building comprehension and reducing anxiety. This foundational level ensures learners feel linguistically supported before fully engaging with English.

Building on this, Opportunities for Translanguaging (O) encourage dynamic language use, allowing learners to fluidly navigate between languages, thus fostering deeper understanding and motivation. Recognizing the variability in learners' developmental stages, the framework incorporates

Tailored Interventions by Grade Level (T), which address motivational differences observed across grades, as indicated by the negative relationship between grade level and motivation.

Next, Individualized Learner Profiles (I) acknowledge that motivation is influenced by personal, familial, and socioeconomic contexts, such as parental occupation and income, which though weakly correlated, remain important considerations for targeted support. To further engage learners, Varied Motivational Strategies (V) are employed, integrating intrinsic and extrinsic motivators aligned with learners' backgrounds and preferences. Finally, Empowering Pedagogies (E) emphasize active learner engagement and teacher responsiveness to sustain motivation despite external challenges.

Together, the hierarchical structure of the MOTIVE Framework reflects the interconnectedness of language responsiveness, learner diversity, and contextual factors, providing educators with a practical roadmap to cultivate and maintain motivation in English language learning among diverse student populations.

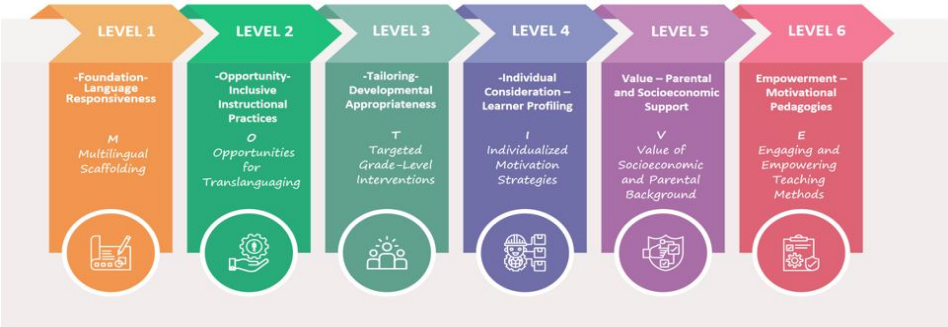

Figure 3. MOTIVE Framework

Level 1: Foundation – Language Responsiveness

M – Multilingual Scaffolding- Provide initial support using learners' heritage language (Cebuano, Higaonon) and preferred medium of instruction (Filipino) to build understanding and reduce anxiety in English learning. This respects students' language preferences and creates an inclusive learning environment, even if heritage language does not significantly affect motivation statistically.

Level 2: Opportunity – Inclusive Instructional Practices

O – Opportunities for Translanguaging- Encourage teachers to integrate translanguaging strategies that allow learners to use multiple languages in English learning. This bridges gaps between students' linguistic backgrounds and English, promoting better comprehension and motivation.

Level 3: Tailoring – Developmental Appropriateness

T – Targeted Grade-Level Interventions- Address the weak negative relationship between grade

level and motivation by designing activities and teaching methods that are appropriate for different grade levels, sustaining motivation especially as learners advance in school.

Level 4: Individual Consideration – Learner Profiling

I – Individualized Motivation Strategies- Acknowledge that age and gender may subtly influence motivation; therefore, personalize learning approaches considering learners' profiles to enhance intrinsic motivation and engagement.

Level 5: Value – Parental and Socioeconomic Support

V – Value of Socioeconomic and Parental Background- While parental educational attainment and occupation show no significant relationship with motivation, parental involvement and socioeconomic support can still influence learners' motivation indirectly. Encourage parental engagement and provide material support to learners when possible.

Level 6: Empowerment – Motivational Pedagogies

E – Engaging and Empowering Teaching Methods- Utilize student-centered, motivating pedagogies that empower learners, build confidence, and foster sustained motivation to learn English. This includes creating meaningful, relevant, and interactive learning experiences that align with learners' needs and backgrounds.

The MOTIVE Framework provides a structured and evidence-based approach to enhancing learners' motivation in English language learning by addressing key factors identified in the study. Starting with foundational language responsiveness through multilingual scaffolding, it builds upward by offering inclusive opportunities for translanguaging, tailoring interventions by grade level, and individualizing strategies based on learner profiles. The framework also acknowledges the broader influence of parental and socioeconomic contexts while emphasizing empowering pedagogies that actively engage students. By following this hierarchical model, educators can create a more supportive and motivating learning environment that meets the diverse needs of learners and promotes sustained motivation to master English.

Conclusion

Majority of the participants are female; most of them are within the age range of 13–14; majority are Grade 10 students; Cebuano is the majority's heritage language; most of them prefer Filipino as a medium of instruction; and the majority's socioeconomic status is low. The extent of learners' motivation in learning English is high.

There is no significant relationship between learners' extent of motivation and variables such as age, sex, grade level, heritage language, preferred medium of instruction, parents' highest educational attainment, occupation, and combined monthly income.

Based on these findings, the MOTIVE Framework was developed to offer a structured approach to understanding and enhancing English language learning motivation among last-mile learners. This framework highlights the need to consider learners' cultural and linguistic backgrounds, as well as the challenges they face in remote educational contexts. It serves as a guide for developing learner-centered strategies that sustain and boost motivation in English language learning.

Teachers may consider incorporating translanguaging strategies in teaching English, especially since students' heritage language is not English and their preferred medium of instruction is Filipino. Meeting learners halfway linguistically fosters better engagement and comprehension. However, this approach should still encourage English language use, as it remains central to the subject.

Future researchers may replicate or adapt this study to validate the MOTIVE Framework in other last-mile contexts and explore additional factors that influence learners' motivation in acquiring English proficiency.

Recommendations

Based on the findings of this study, it is recommended that teachers and school leaders utilize the MOTIVE Framework as a guiding tool in designing motivation-enhancing strategies that are responsive to the unique needs of last-mile learners. This framework can inform classroom planning, instructional delivery, and student support initiatives in English language teaching. Given that learners in this study primarily speak Cebuano and prefer Filipino as the medium of instruction, teachers are encouraged to incorporate translanguaging strategies that allow for flexible use of languages in the classroom. This approach promotes better comprehension and engagement while still supporting the gradual development of English proficiency.

Moreover, culturally responsive teaching practices should be adopted to ensure that lessons and materials are relevant to the students' linguistic, cultural, and socioeconomic backgrounds. Creating a learning environment that fosters motivation—through recognition of student effort, meaningful interactions, and supportive feedback—can also contribute to improved outcomes in language learning. To implement these practices effectively, capacity-building workshops should be provided to teachers, focusing on learner motivation, inclusive instruction, and the practical application of the MOTIVE Framework.

Finally, it is recommended that further research be conducted in other rural or last-mile contexts to validate and refine the MOTIVE Framework. Future studies may also explore other motivational

factors not covered in this research, thus broadening the understanding of what drives English language learning among students in geographically isolated and disadvantaged areas.

Conflict of Interest Statement

The author declares no conflicts of interest.

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Climate Change Education Among Urban Middle School Multilingual Learners: A Mixed-Methods Inquiry

ABSTRACT

Climate change remains a complex issue at the intersection of science, emotion, and politics, yet it is often denied or misunderstood by people worldwide, including young learners. Despite growing global attention, initiatives to address climate change remain limited in scope, particularly in K–12 education. This mixed-methods study (*N*=73), conducted in an urban city in New England, explores the knowledge, beliefs, and intentions of multilingual middle-school learners, a population frequently overlooked in climate education research. Using a survey with both open-ended questions and Likert scale items, I analyzed key dimensions of students' climate literacy (system knowledge, action knowledge, effectiveness knowledge), beliefs, and willingness to engage in climate-protective behaviors through quantitative and qualitative methods. The study analyzed both a full linguistically diverse sample (N=73) and an active multilingual subgroup (N=11) to explore how immigration experience and heritage language use may shape climate literacy.

Keywords: *Multilingual students, Climate change Education, Self-efficacy, Language development, Urban middle school.*

Introduction

I understand the science, but the English words are too hard for me to explain." This statement, made by a bilingual student in a science workshop (Buxton et al., 2019), shows an important but often overlooked problem in education. For some multilingual learners (MLs), it can be difficult to connect what they know with how to express it in English. This challenge can make it harder for them to explore complex topics like climate change. The climate crisis is an urgent worldwide problem that requires an extensive amount of awareness, action, and non-discriminatory methods of learning. Climate change is not a hypothetical risk anymore; it is currently a fact that has dire and long-term outcomes (Diffenbaugh, 2019). More severe and frequent weather events, such as wildfires, droughts, and hurricanes, are a result of global warming and pose a threat to the ecosystem and human life. In both developed and developing countries, many youths do not have an all-encompassing knowledge of the underlying issues of climate change (UNESCO, 2023). Whereas some students are involved in eco-clubs and are centered on tree-planting projects, these activities are not accompanied by long-term

discussions and definite action.

The key to dealing with these global problems is to give young people the correct information and to make them feel that they have the power to change the situation. Climate Change Education (CCE) has emerged as the critical mechanism to increase climate literacy and empower young people to take climate action. However, CCE is often not implemented even in important cases, particularly in multilingual classrooms (Morrison et al., 2024). Multilingual students represent one of the fastest-growing population groups in public school systems across the United States. The proportion of the English Language Learners (ELLs) grew by a margin of 5.3 million between 2011 and 2021, which is 9.4 to 10.6 (National Center for Education Statistics, 2024). This change indicates that the need for inclusive pedagogy and the potential importance of multilingual students in climate change discourse is growing. UNICEF (2025) states that numerous students in American public schools can be displaced, in land degradation, and food insecurity areas that are disproportionately impacted by climate change. Their personal experience in life could present meaningful insights into the actual implications of climate change, but the studies of incorporating those possible insights in scholarly areas are still not widespread.

The increasing rate of the ELL population is also a contributor to the inequity in access to science education. It has been noted in the research that the comprehension of major ideas and communication with others are constrained by linguistic barriers and the technical language of climate science among MLs (Buxton et al., 2019). These issues require specific materials and instruction methods that would consider every student, irrespective of his or her language background, to be engaged with the subject of climate change. In the absence of this, a significant percentage of the student population stands balanced to stand out in debates that directly impact their destinies.

Although the inclusion of multilingual learners in climate education is an important field of study, the needs of these learners have not been fully addressed in the current literature. Goulah (2017) criticizes the TESOL (Teaching English to Speakers of Other Languages) profession by noting that it does not pay enough attention to ecological crises because climate change is not only a scientific problem but also a cultural and religious one. Likewise, Salloum, Siry, and Espinet (2020) note the difficulties of teaching science in multilingual settings and state that the language, culture, and science knowledge intersect. There are also gaps in the existing studies in areas where empirical research is required, specifically in middle school, where the foundation of understanding science and climate literacy is developed. There exists an urgency to fill these gaps using longitudinal studies, interdisciplinary interventions, and multi-layered programs (Ahmed et al, 2024)

This study aims to address some of these gaps and identify climate change learning of students in middle schools situated in urban, language-heterogeneous settings. The study investigates how multi-linguistic and immigration status factors impact the participation of middle school students in climate change education. While the initial research participants included students with diverse communication situations, the analysis of students' variables allowed for voices to provide a more complex notion of language identity in today's classrooms. A substantial number of respondents were born in the United States and used English at home, alongside the use of other languages were considered part of their language identity. For other respondents who had emigrated more recently, evidence of their language identity included their continued use of heritage languages.

Since the various experiences may affect climate learning differently, the study uses a dual analysis method. I provide the results of the entire sample of students in this linguistically diverse environment (N=73) and also consider the patterns of a certain subgroup of the students with direct immigration experience and active heritage language maintenance (N=11). This approach allows me to examine both the broader patterns in linguistically diverse educational settings and the more specific experiences of students navigating climate education while maintaining strong connections to heritage languages and cultures.

Theoretical Framework

Theory of Planned Behavior (TPB), Triadic Reciprocal Causation (TRC), and Knowledge Deficit Model (KDM). Combined, these theories give a logical means of examining the way knowledge, attitudes, social factors, and motivation affect the adoption of climate change education in multilingual learners. These orientations are combined, and the study explores the way of learning about climate change, constructing beliefs, and arriving at intentions in all instances by considering the distinctiveness of linguistic and cultural situations in the work of multilingual learners.

Knowledge Deficit Model (KDM) is premised on the relationship existing between knowledge acquisition and pro-environmental behavior. The most important assumption of this framework is the belief that individuals would be more willing to engage in environmentally friendly activities provided that they possess enough knowledge about the causes, effects, and measures to eradicate the problem of the state of the environment (Kolenatý, Kroufek, and Činčera, 2022; Scherer et al., 2022Another application of this paper is the use of the Theory of Planned Behavior (TPB) developed by Ajzen (1991) to analyze climate change knowledge, beliefs, and intentions among multilingual middle school students. TPB is a systematized method of comprehending how people make intentions and behave according to their attitudes, perceived social expectations, and their perceived control over a behavior.

Bandura's Triadic Reciprocal Causation (1999) describes mutual influence among cognition, behavior, and environment, framing how multilingual students' beliefs form through both knowledge and social context. This model compounds unilateral explanations of behavior using the fact that people are both consumers and creators of their surroundings, i.e., that climate beliefs and intentions of students are not only informed by knowledge, but also by their social settings and previous experiences.

I use the Triadic Reciprocal Causation model of Bandura to discuss the interactions of knowledge, beliefs, and intentions to create climate-related behavior among the students. Unlike linear models, this approach reveals how environmental factors—including peer discussions, cultural influences, and institutional messaging—mediate these relationships.

Grounded in these theoretical perspectives, the study aims to investigate the following research questions:

i. What climate change knowledge do urban middle school multilingual students possess?
ii. What intentions and beliefs regarding climate change exist among urban middle school multilingual students?
iii. How does urban middle school multilingual learners' climate change knowledge relate to their intentions and beliefs regarding climate change?

The theoretical frameworks combine to address the three research questions by considering how multilingual learners' climate knowledge (KDM), beliefs and intentions (TPB), and interactions with social and environmental context (TRC), intersect with the frameworks around language and identity (BICS/CALP and raciolinguistic critique). This synthesis directly supports the examination of multilingual students' climate literacy and their behavioral intentions.

Literature Review

Context of Climate Change Education (CCE)

Climate change in education has evolved over the past twenty years as environmental problems have become more urgent. But the traditional teaching methods still are not preparing students for what is coming. Eilam (2022) puts it well: effective climate education needs to go beyond just making students aware of problems. Students need to really understand how climate systems work, how humans affect them, and what can be done about it.

In the early days, environmental education was all about personal responsibility. Schools taught students to recycle, turn off lights, and buy eco-friendly products (Courtenay-Hall & Rogers, 2002;

Stern, 2000). That's not necessarily bad, but critics like Jacobsson and Lauber (2006) and Stevenson (2007) started asking: Can individual actions really solve such a huge, systemic problem? This created a tension that we are still dealing with today: do we focus on personal choices or bigger changes to systems? When climate classes ignore these power imbalances, they can make inequalities worse (Burt, 1993).

Today's researchers see climate knowledge as much more complicated than just memorizing facts. Building on earlier work by Frick and colleagues (2004), Bofferding and Kloser (2015) teamed up with Boyes, Skamp, and Stanisstreet (2009) to show that students need to navigate multiple knowledge systems at once. They broke it down into three parts: understanding how climate systems work, knowing what actions help, and figuring out which solutions work best. But in my opinion, this framework does not consider how multilingual students' different backgrounds might offer new ways of thinking about environmental problems. Schools often dismiss the environmental knowledge that students bring from home. When we only value things like buying green products instead of community organizing or traditional practices, we miss out on insights from families who have real strategies for dealing with environmental challenges.

The push for broader approaches is gaining momentum. Wibeck (2014) argues for strategies that get people thinking critically about power structures, while McNeill and Vaughn (2020) found that middle school programs work better when they mix science with social studies. Some graduate programs are even more ambitious, and Rawling (1996) describes approaches that combine research with reflection, encouraging students to examine how politics shapes environmental problems.

Community partnerships offer another promising direction. Peel, Robottom, and Walker (1997) show how school-community connections can integrate different types of knowledge, scientific, traditional, and experiential. International examples back this up: Burt (1993) worked in St. Lucia and Rungsayatorn (1994) studied programs in Thailand, both showing how building on local cultural knowledge can motivate real environmental action.

This is important because multilingual students might know things about climate impacts from different parts of the world, but we know almost nothing about how to recognize and use these insights. Most research has focused on developed nations like the U.S. and U.K., and even within the U.S., studies typically look at suburban, mostly white schools (Wolf & Moser, 2011; Wibeck, 2014). It's not just about practical stuff like setting up partnerships; it is about bigger questions: What knowledge do we value? Who gets to decide what matters?

Even with all this progress, many schools still use what Kollmuss and Agyeman (2002) call the "information deficit model." The model assumes that if you just give people more information, they

will automatically change their behavior. But this ignores emotions, social pressures, and structural barriers that influence what people do (Lorenzoni et al., 2007). My research challenges this deficit thinking by looking at what multilingual students know and believe, instead of assuming they do not understand.

Second Language Learning and Academic Content

To understand how multilingual students experience climate change education, it is needed to examine what decades of research have taught me about second language learning in academic contexts. What is coming out of this literature is the fact that academic language development is truly complex, particularly when considering the assumptions that teachers tend to make about multilingual students.

The concept of language learning by educators was changed fundamentally by Jim Cummins when he proposed the difference between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) in 1979. His model developed out of his observations that most teachers could then misunderstand conversational fluency in the students as they're ready to take academic assignments, and thus withdraw language assistance prematurely, only to falter academically.

BICS (Cummins, 1979) entails the language skills required in daily social interactions and the skills to communicate face to face, where meaning can be provided through gestures, facial expressions, as well as shared physical environments. Students typically develop BICS within two to three years of exposure to a new language. CALP, by contrast, involves the abstract, decontextualized language required for academic success, including complex grammatical structures, specialized vocabulary, and the ability to manipulate language for hypothetical reasoning.

For science education, this distinction has profound implications. Climate science exemplifies the challenges of CALP, requiring students to navigate passive voice constructions ("heat is trapped by greenhouse gases"), conditional statements ("if emissions continue to rise, then temperatures will..."), cause-and-effect relationships spanning multiple systems, and technical terminology often derived from Latin and Greek roots. Climate science forces students to think across multiple scales—from molecules to the globe, from daily weather to climate patterns spanning millennia. All of these require exactly the abstract reasoning that makes academic language so demanding.

However, I argue that this framework, while useful, may miss how multilingual students' diverse linguistic backgrounds could be assets for understanding complex climate concepts. Cummins' framework evolved notably over subsequent decades, particularly in response to critiques about its potential to reinforce deficit perspectives. In his 1996 work "Negotiating Identities," Cummins

expanded his analysis to incorporate issues of power and identity, arguing that academic language development cannot be separated from broader questions of cultural validation and social justice. This framework's development faced notable challenges. Cummins came to realize that treating CALP as simply a technical skill ignored the linguistic hierarchies and social inequalities it could perpetuate.

By 2000, Cummins had adopted a different strategy. He started paying attention to equality and equity in education. He claimed that students should not be seen as weak because schools should appreciate their home language as a strength. This was a big shift. He acknowledged academic language as power-related, rather than it being neutral. Nevertheless, his framework continued to have issues with the critics. These changes notwithstanding, scholars doubted that subdivision of language into such categories as BICS and CALP would always lead to the unfair judgment of the abilities of the students.

MacSwan (2000) has claimed that the BICS/CALP framework suggests the existence of a language hierarchy, making some language use cognitively superior. Valdés (2004) showed good intentions of promoting the development of academic language to result in marginalization when individualized to what students are deemed to lack. The main idea of these criticisms is simple: models that separate languages into ideas of academic and non-academic run the risk of recreating the injustices they are meant to cover.

This criticism can be described by Flores and Rosa (2015) as their discussion of raciolinguistic ideologies. They state that frameworks such as BICS/CALP can reinforce the existing harmful ideologies, as it does not aim at acknowledging the linguistic resources of the learners; instead, they emphasize the gap between learners and what they are allegedly lacking. They demonstrate how policies and practices in education tend to place the varieties of languages in multilingual students in a situation where their forms are viewed as inadequate forms of standard English rather than as autonomous systems of language with logic and communicative strength of their own. The criticism applies especially to climate change education, in which the home language practices of students may entail elaborate methods of talking about environmental observations and seasonal patterns, which are categorized as non-academic.

This critique is a central part of my research stance. I investigate multilingual students' understanding of climate through an asset-based perspective, hoping to unearth sophisticated environmental knowledge that might be missing. The theoretical tensions of CALP are embodied in my research findings. When students respond to the prompt, "It's getting cold, more than it should be," or explain climate change using formative observations rather than abstract theoretical principles, I could take these reactions/responses in several ways. From a traditional CALP perspective, I could

view these responses as evidence of underdeveloped academic language. On the contrary, Flores and Rosa's framework calls upon considering whether students are demonstrating a legitimate means of understanding and expressing environmental knowledge that is not recognized in narrow definitions of academic discourse.

Scientific Knowledge and Everyday Understanding

One of the biggest challenges in science education is helping students think about natural phenomena in ways that often go against their everyday experience and intuition. Climate change education makes this even trickier. Students have to grasp processes that unfold over thousands of years, make sense of confusing data, and see how problems in one area affect completely different systems.

Wells (2008) describes a key tension in science learning: what students learn through daily experience often clashes with scientific explanations based on evidence and reasoning that isn't immediately obvious. For climate education, this creates real problems. What students experience with local weather doesn't show long-term climate trends. Their neighborhood conditions might not reflect global patterns. And it's hard to see how personal actions connect to big environmental changes.

I argue that for multilingual students, this tension may be different; their "everyday" experience might include knowledge from multiple geographical and cultural contexts that could enrich scientific understanding rather than conflict with it. Researchers are paying more attention to the cultural side of this challenge. Valdés (2004) stresses how important it is to listen to students and put their experiences at the center of learning. She wants teaching that connects students' cultural backgrounds with academic language development. This matters a lot for climate education. Students often know about environmental changes from daily observations, family conversations, or their cultural traditions. When climate classes ignore these voices, they miss valuable insights and push students to the margins, exactly what Valdés warns against.

Ojalehto and Medin (2015) found that students approach scientific thinking differently based on their languages and cultures. They demonstrate the need to have culturally responsive instruction that acknowledges that the backgrounds of students influence their interactions with science. In the case of a student whose family has information about seasonal patterns or drought cycles, they have valuable environmental knowledge, but again, this is just structured differently than what would be expected in a normal science course. The trick is to develop lessons that respect this cultural knowledge and, at the same time, teach scientific thinking.

The aspect of my research is how various cultural and experience backgrounds of multilingual students affect their climate cognition, beyond the presumption that science and everyday knowledge

should always be mutually exclusive. The knowledge of such tensions between scientific and everyday knowledge is important, yet I also have to observe the results of such tensions in real classrooms. There is a very different response to these challenges in schools, which I see when I consider real climate education.

Current Practices in Urban Middle School Educational Settings

Climate change education in middle school in the U.S. is exciting, innovative, and complicated in various states, districts, and classrooms. The policy context varies such that in states like Connecticut, climate change caused by humans is specifically listed in the science standards for students to study, while in Massachusetts, climate change policy provides minimal guidance, thus leaving it up to teachers and faculty to decide if and how they integrate climate change topics into the classroom (Cho, 2023). The differences in policy context create challenges for urban schools, which often serve impoverished and multilingual populations and are often less equipped with resources to develop curricula and prepare staff. If states, like Massachusetts, push for schools to develop curricula, they leave it up to schools to decide if and how to address climate change. Systematic climate change education presents opportunities for students to connect what they learn academically to their lived experiences in a hands-on manner and systematically acknowledge students' needs to develop tools to study the environmental changes that impact their everyday lives.

Cho (2023) documents how schools in economically disadvantaged areas face additional barriers, including inadequate materials, limited professional development opportunities, and competing demands that leave little time for curriculum innovation. These resource constraints are especially problematic for climate education, which benefits from interdisciplinary approaches, community connections, and hands-on learning experiences that require time and materials to implement effectively.

Despite these constraints, promising practices have emerged in some urban settings.

Monroe and colleagues (2019) describe successful approaches that emphasize experiential learning, including structured discussions that help students process complex information, collaborations with practicing scientists that provide authentic research experiences, and community-based projects that connect classroom learning to local environmental issues. These approaches seem particularly well-suited to urban contexts because they can draw on rich community resources and diverse perspectives that characterize many city neighborhoods. Yet this very diversity, particularly the linguistic and cultural diversity that characterizes many urban schools, introduces additional complexities that remain underexplored in literature.

What concerns me about this research is that while Monroe et al. describe "diverse perspectives" as an asset, they don't specifically examine how linguistic diversity affects climate learning, a notable gap my research addresses. What is less clear from Monroe et al's research is how these approaches work specifically with multilingual populations. While they document general effectiveness, they do not examine whether students with different linguistic backgrounds experience these pedagogical approaches differently or whether additional support might be needed to ensure equitable participation.

International examples provide some additional insights about participatory approaches to climate education. Educational reforms in Korea, Taiwan, and Singapore have emphasized student involvement in sustainability initiatives, with encouraging results in terms of engagement and learning outcomes (Chang & Pascua, 2017; Lee et al., 2017). However, these contexts differ notably from U.S. urban schools in terms of linguistic diversity, immigration patterns, and educational structures, making it difficult to draw direct parallels.

Other teachers have promoted more systemic directions that make the students perceive climate change as a social and political phenomenon, not just as a scientific issue. Williams and colleagues (2017) and Öhman and Öhman (2013) outline the programs where the collaboration with the community organizations is introduced to place climate education into the greater context of environmental justice, economic inequality, and political power. These strategies acknowledge the fact that various societies are impacted by climate change, and the appropriate responses must be a collective one through policy reform.

Jones and Davison (2021) highlighted the affective aspects of climate education and stated that students should have secure environments to manage the sense of anxiety, grief, and overwhelming feelings that climate information may evoke in students. According to their work, there should be a combination of cognitive and emotional learning to create resiliency and agency instead of feelings of despair and paralysis. This view appears to be especially applicable to urban students, who can belong to the communities already experiencing the effects of environmental health and can feel the acuity of climate challenges more than their counterparts in more advantaged environments.

Nevertheless, it is possible to note that in many modern practices, the focus on systemic analysis is less emphasized than on individual behavior change. This trend was observed by Courtenay-Hall and Rogers (2002) and remains active in most current programs focusing on personal energy use, reduction of waste, and consumer behavior, but pay less attention to policy campaigns, community organization, or structural analyses. I believe that this individualistic attention is especially problematic in the case of multilingual students who belong to a community experiencing systemic environmental injustices because it shifts the burden onto the young people without discussing the structural injustice

they have to endure (Tolbert, Schindel, & Rodriguez, 2019). This individualistic orientation can be quite dangerous in the context of multilingual students representing communities with systemic disadvantages, since it puts the burden on younger people without considering the institutional aspects of the limitation of their agency.

Multilingual Learners and Climate Change Education

Although there has been an increase in awareness of the significance of inclusive and culturally responsive education, multilingual students have been mostly excluded from the research on climate change education. This disjuncture is indicative of more general issues with education: climate change is perceived as an elective subject, and many teachers do not touch upon this issue at all. In the case of multilingual learners, the lack is especially vivid since multilingual communities are increasingly represented at the urban schools and since a significant number of such students belong to the communities unequally impacted by environmental issues.

It is this gap that is the catalyst behind my study because multilingual students form one of the fastest-increasing student groups in urban schools, and I know almost nothing about their experiences of climate education. The question of oversight appears particularly problematic in relation to what multilingual students could contribute to climate education. Students who have experienced life in several countries are equipped with firsthand experience on how various environmental conditions and adaptation methods are. The people who are still attached to other parts of the world through extended families might be able to receive information regarding the environmental changes that do not even reach international news. Learners with traditional ecology backgrounds can also know environmental associations that can be used in addition to the scientific view.

Goulah (2017) and Garcia and colleagues (2019) suggest that linguistic diversity has the potential to increase critical thinking and problem-solving in learning institutions. A student who switches between different language systems acquires metacognitive awareness that facilitates intricate thinking. They are taught to take into account various opinions and ask questions that may seem to be evident to monolingual speakers. These mental abilities appear to be directly applicable to climate change education, which needs students to reason on a variety of scales, consider a wide range of opinions, as well as synthesize information provided by different sources.

Nonetheless, the studies that have been conducted on multilingual students in science learning have concentrated more on limitations as opposed to resources (Cohen, 1992). The language proficiency issues are real and significant: the texts of science are linguistically complicated, instruction in laboratory should be clear and correct, and the discussion in the classroom proceeds

rapidly and may disadvantage those students who have to process the information more slowly. Cultural disconnections are also a hurdle in cases where the curriculum contents are not relevant to the experiences of students, or the instructional methods are against cultural beliefs regarding the learning and participation.

Salloum and colleagues (2020) have created models of culturally responsive science teaching, which view linguistic diversity as a tool instead of a weakness. Their methods underline the interrelation of the scientific ideas with the cultural background of the students, the collaborative learning framework that facilitates the language growth and the justification of the numerous modes of showing knowledge. Nevertheless, they admit that it is highly unlikely to implement such approaches without significant professional growth and institutional backing.

The scanty research on multilingual students as a specific target group and climate education, presents both opportunities and challenges. According to STEM Teaching Tools (2024), multilingual students can become useful platforms in cross-cultural communication on environmental problems, and their insights into the topic may not be represented in the classroom. Their multicultural backgrounds can make their classmates have more global views about the effects of climate change and ways to solve the problem.

Interestingly, the same source admits a serious gap: this field practically lack longitudinal studies that would help me to monitor the experience of multilingual students in climate education over the years. It is difficult to understand how their comprehension is built, what helps them work best, or how their views alter as they gain more academic language proficiency. The overall overview shows that significant advances have been achieved in climate education and the research of multilingual learning independently, but the relationship between them has not received thorough research. This study addresses this gap by examining what urban middle school multilingual students know, believe, and intend to do about climate change, moving beyond deficit assumptions to recognize the unique assets these students bring to environmental learning.

Methodology

Participants

The study involved participants from a middle school located in an urban area of New England, known for its notable population of English Language Learners (ELLs). This research was part of a multi-year federally funded initiative, which included a tutoring component aimed at offering academic assistance to multilingual middle school students in a small New England city. The program is designed to tackle the educational difficulties encountered by ELL students while promoting their

language learning and overall academic growth.

Participants were selected from grades 5 through 8. The process of identifying students for the tutoring program was two-tiered. First, the grants' external evaluator randomly selected student teams from these grades. From these teams, individual participants were then chosen by their teachers based on the following criteria:

- Language Background: Students identified as multilingual, including those currently classified as English Learners (EL), former ELs, or ELs not actively receiving services.
- Potential Benefit: Students whom teachers believed would particularly benefit from one-on-one connections with undergraduate tutors from the local University.

Ethical Approval and Consent Procedures

This study was conducted as part of a larger research project titled *"STEM Language Arts Teaching/Learning Ecosystems"* and received approval from the University of New Hampshire Institutional Review Board (IRB Protocol #IRB-FY2022-238, approved through April 11, 2025). A modification to the original protocol, approved October 1, 2024, included the addition of surveys and doctoral student research activities specific to this climate change education study.

All student participants provided informed assent, and written parental consent was obtained for all participants before data collection. Participants were informed that their participation was voluntary and that they could withdraw at any time without penalty or impact on their involvement in the tutoring program. Data collection and storage procedures followed IRB protocols to protect participant confidentiality. All personally identifying information was removed during data analysis, and pseudonyms were assigned to protect student privacy in this manuscript.

Sample Composition and Dual Analysis Approach

The research included 73 students from 5th to 8th grade. Of the participants, 45.5% identified as male, 53% as female, and 1.5% preferred not to disclose their gender. In terms of linguistic background, while most participants reported English as their primary home language, several students indicated speaking additional languages, including Spanish, Portuguese, Nepali, Somali, Arabic, Vietnamese, and Luganda.

The Active Multilingual Subgroup (N=11) is analytically nested within the larger Linguistically Diverse Student Sample (N=73). This means that the same 11 students' responses contribute to both the subgroup and the overall dataset. This nested structure reflects authentic classroom realities, where students with active multilingual practices learn alongside peers from varied linguistic backgrounds.

Analyses were therefore designed to highlight both broad population patterns and subgroup-specific insights rather than to treat these groups as independent samples.

In my study, I use the term multilingual students to refer to all students who use or are developing proficiency in more than one language, regardless of their English proficiency or whether they receive formal English Language Learner (ELL) services. This approach is consistent with asset-based frameworks (WIDA, n.d.; Yankelovich, 2023) that recognize the full range of students' linguistic abilities, not just their status as English learners.

To provide comprehensive insights into multilingual climate learning, this study employs a dual analysis approach. The research presents findings from both the Linguistically Diverse Student Sample (N=73) and a focused subset of the Active Multilingual Subgroup (N=11). Upon examination of participants' backgrounds, the research team identified meaningful distinctions within the broader multilingual population. While many students in the full sample were linguistically diverse, they were predominantly born in the United States and primarily spoke English at home alongside other languages.

The subset of 11 students represents a distinct multilingual experience, characterized by:

- Immigration experience: Students who were born outside the United States or immigrated from other countries
- Active heritage language maintenance: Students who primarily speak languages other than English at home
- Cross-cultural educational experience: Students who have navigated educational systems or cultural contexts beyond the U.S. experience

The comparison between the full sample and the subset reveals important patterns that might otherwise remain masked when analyzing all multilingual students as a homogeneous group. Demographic details for participants are summarized in **Appendix A (Figures 1–5).**

Within the full sample (N=73), 27.3% of participants indicated they were born outside of New Hampshire, while 19.7% reported immigrating to the United States from other nations. The subset of truly multilingual students (N=11) consists entirely of students who were born outside the United States or immigrated from other countries, representing a portion of this 19.7% who also maintain active heritage language practices at home.

This demographic composition is notable for climate education research, as the truly multilingual subset brings direct immigration experiences and diverse environmental perspectives informed by different geographical and cultural contexts. These students have lived in or have family connections to regions that may experience different climate-related phenomena such as droughts, floods, or

environmental changes. This firsthand or familial environmental knowledge represents a valuable resource for climate learning that differs qualitatively from climate understanding developed primarily through U.S.-based educational experiences. This distinction is crucial for interpretation: while the broader sample represents the linguistic diversity typical of many urban schools, the Active Multilingual Subgroup provides a focused view of learners maintaining strong heritage language engagement.

Data collection

The investigation of this study utilized a combination of quantitative and qualitative methods within a mixed-methods approach. Data was collected through an online survey, which included 13 multiple-choice items (offering responses on a Likert scale) and five open-response items. The survey was divided into four sections, each investigating different constructions:

Background Information – Collected demographic and linguistic background data. Climate Change Knowledge (Conceptual Understanding) – Included four open-ended questions to assess system and action knowledge (Bofferding & Kloser, 2015).

Beliefs about Climate Change – Comprised nine Likert-scale items and one open-ended question exploring personal and familial experiences with climate change.

Intentions to Act on Climate Change – Contained four Likert-scale items assessing willingness to engage in climate action.

The survey was designed based on the study's definition of climate literacy and research questions. Intention and belief items were taken from the Climate Change Attitude Survey (Christensen & Knezek, 2015), and knowledge items were developed through multiple rounds of revisions and expert consultations for validity. The reliability of the survey was assessed using Cronbach's alpha (see Table 1). The Beliefs scale demonstrated questionable reliability ($\alpha = .643$), while Knowledge ($\alpha = .328$) and Intentions ($\alpha = .528$) scales showed poor internal consistency. Though these alpha values fall below conventional standards, they are acceptable given the small number of items (4 items each for the Knowledge and Intentions scales) and the exploratory nature of this study (Nunnally, 1978). However, the particularly low reliability of the Knowledge scale ($\alpha = .328$) means that all correlations involving knowledge scores should be interpreted with considerable caution, as measurement error may obscure true relationships or create spurious ones.

The particularly low alpha for the Knowledge scale (.328) likely reflects the diverse nature of climate knowledge measured, including weather versus climate distinctions, greenhouse effect understanding, human impacts, and natural causes, which may represent distinct rather than unified

constructs. The Intentions scale's modest reliability (.528) suggests the four intention items, while related, capture different aspects of environmental action orientation.

Table 1: ***Reliability Analysis of Survey Items Using Cronbach's Alpha***

Survey Dimension	No of items	Cornbach's Alpha
Knowledge	4	.328
Belief	11	.643
Intention	4	.528

All quantitative data collection was fully anonymous.

The qualitative data collected from open-ended responses were recorded, transcribed, and coded. Transcriptions were analyzed using thematic analysis (Marshall & Rossman, 2014). To convert qualitative responses into quantitative data (on a scale of 1–5), a coding system was developed by reviewing a selection of student responses:

Survey Administration

To ensure consistency, all undergraduate tutors received standardized written and verbal training before survey administration. They were instructed to read each survey item verbatim and to use only approved examples or visual cues when clarifying vocabulary for students. Tutors were prohibited from rewording or interpreting questions beyond these standardized supports.

Surveys were administered individually in quiet classroom settings to reduce distractions. Each session followed the same time frame and structure. Audio recordings documented student–tutor interactions, which were later reviewed to confirm procedural adherence. Although minor differences in phrasing may have occurred, these checks indicated overall fidelity to the standardized protocol.

While tutors provided accessibility support to multilingual learners, such as explaining unfamiliar English words, these accommodations were implemented within the approved guidelines. Thus, survey delivery was largely uniform while remaining responsive to students' linguistic needs. Despite standardized training, some variability in tutors' delivery or clarification of items may have influenced student responses. While checks confirmed overall procedural fidelity, inconsistent linguistic support cannot be fully ruled out.

Data Analysis

Research questions were addressed through a mixed-methods approach, integrating quantitative and qualitative data.

Quantitative Analysis: Using SPSS Statistics (Version 29), I calculated Pearson correlation coefficients to examine relationships among Knowledge, Belief, and Intention **for the full sample (N = 73)**. For the analytically nested Active Multilingual Subgroup (N = 11), only descriptive statistics (means and standard deviations) are reported. Because the N = 11 subgroup is too small to meet the assumptions required for Pearson correlation (insufficient sample size and limited statistical power), inferential correlational analyses were not performed for that subgroup.

Qualitative Analysis: Qualitative data, consisting of open-ended responses to questions about the difference between weather and climate, beliefs about natural climate change, and the impact of cars on climate change, were analyzed using thematic analysis (Marshall & Rossman, 2014). Thematic analysis provided richer insights and helped identify specific examples. The coding schemes were developed by carefully reading and organizing the ideas brought up by participants. Each code was assigned a definition and examples to ensure standardization.

To ensure reliability in the qualitative analysis, a systematic approach to coding was applied. The researcher conducted multiple rounds of coding on a subset of responses, refining the codes and their definitions to maintain consistency. Coded segments were regularly reviewed and compared throughout the analysis process. While inter-rater reliability could not be calculated due to the independent nature of the research, this iterative approach enhanced the reliability and consistency of the coding scheme.

Results

The result section is structured according to the research questions.

What climate change knowledge do urban middle school multilingual students possess?

I assessed students' climate change knowledge through four questions designed to address key foundational concepts. These included distinguishing between weather and climate, understanding natural versus human causes of climate change, examining students' awareness of the human role in contributing to global warming through everyday actions (e.g., driving cars), and understanding underlying scientific mechanisms of climate change, such as the greenhouse effect.

Given the diversity within my sample of students classified as multilingual learners, I present findings in two ways: patterns across the full sample (N=73) and focused analysis of students with direct immigration experience and active heritage language maintenance (N=11).

Assessment results indicated that students' responses to climate change questions scored relatively low across the full sample (mean scores ranging from 1.32 to 2.45 out of 5). The lowest mean scores were observed in responses regarding the greenhouse effect (mean 1.32).

When examining the subset of students with immigration experience and heritage language maintenance (N=11), descriptive patterns differed from the full sample, though the small sample size limits the generalizability of these observations: weather/climate distinction showed moderate scores (M=3.00, SD=0.775), natural climate causes remained challenging (M=2.45, SD=1.293), human impacts demonstrated the highest scores (M=3.64, SD=1.206), while scientific mechanisms like the greenhouse effect remained the lowest scoring area (M=1.64, SD=1.027).

Table 2: *Summary of Findings from Student Responses*

Key knowledge area	Theme	Response Pattern	Students quote
System Knowledge	Difference between weather & climate; greenhouse effect- Heat and gas trapping in the atmosphere	Confusing weather with climate; lack of familiarity with the greenhouse effect	"They're the same." "Heat and gases trapped in Earth's atmosphere."
System Knowledge	Natural causes of climate change	Vague or irrelevant examples of natural changes	"Volcanoes." "It's natural when it's hot, then cold."
Action Knowledge and Effectiveness Knowledge	Impacts of cars on the climate	Focusing on functionality, not emissions	Cars are for driving." "Cars release gas that affects the environment."

Given the low internal consistency of the knowledge scale (α = .328), these results should be interpreted with caution. The variability across items suggests that the construct of climate knowledge may not have been measured as a single dimension.

Many students displayed gaps in their conceptual understanding of climate change, reflecting both partial knowledge and misconceptions. For example, when asked about the difference between weather and climate, Alex, who demonstrated an accurate understanding, explained, "Weather is short-term, and climate is overall." However, Maria expressed confusion, stating, "They're the same," while Sam added, "Climate is earthquakes, and weather is storms." When asked about natural examples of climate change, Liam correctly identified volcanic activity, saying, "Volcanoes contribute to natural climate change." On the other hand, Sophia offered vague responses, such as, "It's natural when it's hot, then cold." Similarly, Olivia admitted uncertainty, stating, "I don't know." The question regarding the impacts of cars on climate change revealed gaps in systemic knowledge. Ethan demonstrated an accurate understanding, noting, "Cars release gas that affects the environment." However, others, like Noah, focused solely on functionality, stating, "Cars are for driving, so they don't cause problems." Lastly, students' understanding of the greenhouse effect was notably weak. While Isabella correctly explained it as "Heat and gases trapped in the Earth's atmosphere," most students expressed uncertainty, with Mason stating, "I don't know," and Emma adding, "Not sure."

What intentions and beliefs regarding climate change exist among urban middle school students?

Survey responses reveal that learners generally agreed with statements about climate change and its environmental effects, but showed more varied responses regarding human influence and personal agency.

Participants generally responded positively to statements about climate change and its environmental consequences. Most students strongly agreed that climate change is occurring (M = 4.08, SD = 0.968) and that it will impact the environment (M = 4.00, SD = 1.167). They also agreed that climate change hurts their lives (M = 4.10, SD = 0.670). Students showed moderate agreement with the existence of proof for global climate change (M = 3.93, SD = 1.134) and expressed moderate concern about the issue (M = 3.48, SD = 1.029). However, responses showed more uncertainty regarding human responsibility, with lower agreement on whether human activities cause global climate change (M = 3.42, SD = 1.301).

Descriptive analysis of students with immigration experience and heritage language maintenance (N=11) showed some different response patterns, though the small sample size limits generalizability. These students showed strong agreement with the existence of climate change proof

(M = 4.00, SD = 1.000) and that climate change negatively affects lives (M = 4.09, SD = 0.539). However, their personal agreement with climate change statements was more moderate (M = 3.64, SD = 1.362), and concern levels were lower than the full sample (M = 3.18, SD = 1.328). They showed moderate agreement that climate change will impact the environment (M = 3.82, SD = 1.537) and that human activities cause climate change (M = 3.73, SD = 1.489). Responses indicating personal experience with climate change effects remained limited (M = 1.91, SD = 1.044).

Intentions Toward Climate Action

While students expressed strong environmental concern (M = 4.08, SD = 1.115), response patterns regarding personal agency were more complex. In this study, personal agency refers to beliefs about one's capacity to engage in purposeful actions that notablely impact their surroundings. Students strongly agreed that trying to fix environmental problems is worthwhile (M = 4.18, SD = 1.229) and showed moderate confidence in their personal capacity to help solve environmental problems (M = 3.53, SD = 1.435). However, they expressed uncertainty about whether their individual actions actually impact the environment (M = 2.93, SD = 1.378) and showed moderate agreement that individuals can help stop global climate change (M = 3.11, SD = 1.420). Students also demonstrated moderate skepticism about whether environmental problems are exaggerated (M = 2.56, SD = 1.258) and strong agreement that they can make the world better for future generations (M = 3.85, SD = 1.210). There was notable ambivalence about collective action, with moderate agreement that "we cannot do anything to stop global climate change" (M = 3.45, SD = 1.546), suggesting mixed responses about collective efficacy.

Among students with immigration experience, response patterns regarding personal agency and environmental perceptions were similarly complex. These students demonstrated very strong environmental care (M = 1.73, SD = 0.647), indicating high concern for environmental issues. They disagreed that people make environmental problems sound worse than they really are (M = 2.27, SD = 1.272) and rejected the notion that their actions don't impact the environment (M = 2.45, SD = 1.440). However, they were more ambivalent about whether trying to fix environmental problems is worthwhile (M = 3.64, SD = 1.629) and showed moderate uncertainty about their ability to help solve environmental problems (M = 3.18, SD = 1.537). They also showed confidence in making the world better for future generations (M = 3.82, SD = 1.168) and disagreed that we cannot do anything to stop climate change (M = 2.45, SD = 1.368), but had lower confidence that individuals can help stop climate change (M = 2.45, SD = 1.695), revealing complex response patterns regarding individual versus collective efficacy.

Table 3: ***Descriptive Statistics for Climate Change Beliefs (N = 73) and (N=11)***

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I believe our climate is changing.	73	1	5	4.08	.968
I am concerned about global climate change.	73	1	5	3.48	1.029
I think there is proof of global climate change.	73	1	5	3.93	1.134
Climate change will impact the environment.	73	1	5	4.00	1.167
Individuals can help stop global climate change.	73	1	5	3.11	1.420
Human activities cause global climate change.	73	1	5	3.42	1.301
Climate change has a negative effect on our lives.	73	3	5	4.10	.670
I can do my part to make the world a better place for future generations.	73	1	5	3.85	1.210
We cannot do anything to stop global climate change.	73	1	5	3.45	1.546
I care about environmental problems and issues.	73	1	5	4.08	1.115
Valid N (listwise)	73				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I believe our climate is changing.	11	1	5	3.64	1.362
I am concerned about global climate change.	11	1	5	3.18	1.328
I think there is proof of global climate change.	11	2	5	4.00	1.000
In what ways have you or your family felt the effects of climate change? please provide an example	11	1	4	1.91	1.044
Climate change will impact the environment.	11	1	5	3.82	1.537
Individuals can help stop global climate change.	11	1	5	2.45	1.695
Human activities cause global climate change.	11	1	5	3.73	1.489
Climate change has a negative effect on our lives.	11	3	5	4.09	.539
I can do my part to make the world a better place for future generations.	11	2	5	3.82	1.168
We cannot do anything to stop global climate change.	11	1	5	2.45	1.368
I care about environmental problems and issues.	11	1	3	1.73	.647
Valid N (listwise)	11				

Table 4: *Descriptive Statistics for Climate Change Intentions* (N=73) and N=(11)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
People make environmental problems sound worse than they really are.(R)	73	1	5	2.56	1.258
The things I do don't impact the environment.(R)	73	1	5	2.93	1.378
Trying to fix environmental problems is a waste of time.(R)	73	1	5	4.18	1.229
There's not really anything I can do to help solve environmental problems.(R)	73	1	5	3.53	1.435
Valid N (listwise)	73				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
People make environmental problems sound worse than they really are.	11	1	5	2.27	1.272
The things I do don't impact the environment.	11	1	5	2.45	1.440
Trying to fix environmental problems is a waste of time.	11	1	5	3.64	1.629
There's not really anything I can do to help solve environmental problems.	11	1	5	3.18	1.537
Valid N (listwise)	11				

How does urban middle school multilingual learners' climate change knowledge relate to their intentions and beliefs regarding climate change?

A Pearson correlation analysis examined relationships between environmental knowledge, beliefs, and behavioral intentions. Analysis of the full sample (N=73) showed the following correlation patterns: Knowledge-Belief: r = .160, p = .177, Knowledge-Intention: r = .067, p = .571, and Belief-Intention: r = .365, p = .002. Only the belief-intention correlation reached statistical significance, suggesting that responses to climate change belief statements were associated with responses to intention statements in this sample, while knowledge scores showed no notable relationships with either beliefs or intentions.

For the Active Multilingual Subgroup (N = 11), I present only descriptive statistics (means and standard deviations) for knowledge, belief, and intention scores due to the subgroup's small sample size. The sample of 11 students is insufficient to meet the distributional and power assumptions required for valid Pearson correlation analyses; therefore, correlation coefficients and inferential tests were not computed for this subgroup. Descriptive patterns for the subgroup are reported in Tables 3–

4 (where subgroup means and SDs appear), and any comparisons between subgroup and full-sample means are treated as exploratory and descriptive rather than inferential.

The lack of notable knowledge-belief and knowledge-intention relationships across both analyses indicates that, in this sample, students' climate change knowledge scores were not strongly associated with their belief or intention responses, consistent with research suggesting that the relationship between environmental knowledge and attitudes is complex and mediated by multiple factors.

Discussion

By integrating cognitive-behavioral theories (TPB, TRC) with language and identity frameworks (BICS/CALP and raciolinguistic critique), this study interprets multilingual learners' climate literacy as shaped by both internal beliefs and sociolinguistic contexts. The findings illustrate how limited academic language proficiency may constrain expression of climate knowledge even when conceptual understanding exists.

More than Language Barriers

My assessment found that students' understanding of climate change concepts varied across different areas. Many participants demonstrated misconceptions such as equating the 'greenhouse effect' with physical greenhouses or conflating natural disasters with climate change phenomena. These patterns are consistent with Reid's (2019) findings among secondary students, though Reid's study focused on monolingual English speakers, raising questions about whether the misconceptions observed stem from linguistic challenges or reflect broader conceptual difficulties common across student populations.

The comparison between the full sample of students in this linguistically diverse setting (N=73) and students with immigration experience and heritage language maintenance (N=11) provides some insights into this question. Both groups showed challenges with formal scientific mechanisms, particularly the greenhouse effect, which remained the weakest area for students with immigration experience (M=1.64). This consistency across groups supports Wibeck's (2014) research, indicating that students from different contexts struggle with scientific concepts like greenhouse gases, suggesting this may reflect pedagogical challenges that transcend language backgrounds. However, a notable difference emerged in responses about human impacts on climate change. While the full sample showed limited knowledge across domains (M=1.32-2.73), students with immigration experience showed higher mean scores on human impacts (M=3.64). This pattern suggests that

students with immigration experiences and heritage language maintenance may respond differently to conventional environmental assessments, though whether this reflects different ways of understanding environmental issues or limitations in my assessment approach requires further investigation (Fien & Rawling, 1996).

The linguistic patterns observed such as incomplete sentence constructions or reliance on everyday vocabulary were evident across both samples. Audio transcription analysis revealed responses like "I believe so" or "It getting cold more than it should be," suggesting that students may still be developing the cognitive/academic language proficiency (CALP) necessary for scientific discourse, as articulated by Cummins (1979). However, the different performance patterns between groups on human impacts suggest that academic language challenges do not uniformly affect all domains of climate understanding.

Prior research highlights how cultural narratives and everyday experiences shape students' understanding of climate change (Rousell & Cutter-Mackenzie-Knowles, 2019). The students with immigration experience may have been exposed to different cultural frameworks for understanding human-environmental relationships, possibly informed by experiences from their countries of origin where environmental changes may be more directly observable.

Beyond Linear Models: Complex Response Patterns

The varied responses illustrate this complexity clearly. When asked about weather versus climate, Alex demonstrated scientific understanding, explaining "Weather is short-term, and climate is overall," while Maria expressed confusion, stating "They're the same," and Sam added "Climate is earthquakes, and weather is storms." These varied responses suggest that students may show different patterns when encountering formal climate science concepts.

The response patterns are consistent with Bandura's (1999) triadic reciprocal causation model, which suggests that personal factors (knowledge and beliefs), behavioral patterns, and environmental influences interact in complex, non-linear ways rather than through simple causal pathways. For students navigating multiple cultural and educational contexts, these interactions may be particularly complex.

Correlation analyses showed that while climate change beliefs notablely correlated with behavioral intentions in the full sample ($r=.365$, $p=.002$), this relationship was not observed among students with immigration experience ($r=.095$, $p=.781$). While the small subset size prevents definitive interpretation, these different correlation patterns suggest that students with different educational and cultural experiences may show varied response relationships. This is consistent with research

indicating that relationships between knowledge, beliefs, and intentions are complex and mediated by multiple factors (Kollmuss & Agyeman, 2002). The limited reliability of the knowledge measure likely attenuated observed correlations, meaning true relationships between knowledge and beliefs may be stronger than detected. Future iterations should expand and refine these items to enhance psychometric reliability.

Environmental Engagement and Self-Efficacy

Response patterns regarding environmental engagement showed complexity across both the full sample and the subset of students with immigration experience. While the broader sample showed moderate agreement regarding human responsibility for climate change (M=3.42, SD=1.301) and uncertainty about individual environmental impact (M=2.93, SD=1.378), students with immigration experience showed different response patterns.

Despite higher agreement that human activities cause climate change (M=3.73) compared to the full sample, students with immigration experience expressed lower confidence that individuals can help stop climate change (M=2.45). Most notably, they demonstrated very high environmental concern (M=1.73, where lower scores indicate higher concern) while reporting limited personal experience with climate effects (M=1.91). This pattern high environmental concern paired with limited reported personal experience with climate impacts suggests complexity in how students relate to environmental issues, though the small sample size (n=11) limits the generalizability of this observation.

These patterns are consistent with Monroe et al. (2019), indicating that feelings of uncertainty may hinder pro-environmental behaviors, even when students acknowledge both human responsibility and possess strong environmental concern. The emotional complexity was evident in student responses. Many expressed concerns about climate change coupled with helplessness, as seen in comments like "What can one person do?" Such statements are consistent with Kollmuss and Agyeman's (2002) observation that worry, when combined with a lack of perceived efficacy, can lead to apathy. However, students who could envision actionable steps demonstrated different patterns. As one student said, "If we could plant trees in school, I'd do it," supporting Taber and Taylor's (2009) argument that concern, when paired with trust in mitigation strategies, can foster action. This suggests that the disconnect between high concern and low efficacy among students with immigration experience may be addressable through concrete, achievable environmental activities.

The response patterns suggest that many students demonstrated awareness of climate issues while possibly lacking what Kolenatý et al. (2022) term "action knowledge" understanding of how specific behaviors contribute to climate solutions. For instance, a student mentioned "Cars make the climate

hotter," but could not connect this observation to broader systemic impacts like greenhouse gas emissions. This example illustrates the potential importance of integrating action knowledge into curricula, as advocated by Kolenatý et al. (2022).

By integrating quantitative survey patterns with students' open-ended responses, I was able to triangulate findings and capture both statistical trends and the contextualized reasoning behind them. This mixed-methods integration enhances the interpretive depth of the study and supports more nuanced insights into multilingual learners' climate literacy.

Limitations

This study has several important limitations that affect the interpretation and generalizability of findings.

Sample Size and Statistical Power

The focus on truly multilingual students (N=11) created statistical power limitations, preventing definitive conclusions about relationships among knowledge, beliefs, and intentions. While the descriptive patterns revealed meaningful differences, all correlations in the multilingual subset were non-significant due to small sample size. Additionally, because the Active Multilingual Subgroup (N=11) is part of the larger dataset (N=73), their responses contribute to both analyses. This overlap was intentional, designed to reflect the nested nature of multilingualism within diverse classrooms rather than to produce independent samples.

Multilingual Identity Measurement

The identification of multilingual students relied on self-reported home language use and immigration history, which likely underestimated the multilingual population. Students may have underreported multilingual practices due to social desirability bias or political sensitivities around immigration discourse during data collection.

Methodological Constraints

The cross-sectional design prevented examination of developmental processes. Survey instruments administered in English may have disadvantaged students developing academic language proficiency or those who might express understanding more fully in heritage languages. Climate knowledge measures focused on formal scientific concepts and may not have captured informal environmental knowledge from cultural backgrounds.

Instrument Reliability Limitations

The Knowledge scale demonstrated poor internal consistency (α = .328), which notablely limits the interpretability of all knowledge-related correlations and findings. While this low reliability may be partially attributed to the small number of items and exploratory nature of the study (Nunnally, 1978), it nonetheless means that the knowledge-belief and knowledge-intention relationships observed may reflect measurement error rather than true associations. This reliability limitation is particularly important when interpreting the different correlation patterns observed between the full sample and the immigration experience subset, as these differences may be artifacts of measurement inconsistency rather than meaningful group differences.

Geographic and Demographic Scope

The study was conducted in one urban middle school, limiting generalizability to other settings, grade levels, or geographic regions. The urban context may not represent multilingual student experiences in rural or suburban environments.

Survey Administration Variability

Although tutors followed standardized instructions, slight variability in assistance may have occurred due to individual communication styles. These differences could have influenced comprehension for some students. Additionally, since the survey was conducted entirely in English, accessibility may have been limited for participants who were more comfortable in other languages. Future studies should consider offering translated versions or bilingual administration to enhance validity across multilingual populations

Variation in tutor scaffolding during survey administration may have introduced subtle differences in student comprehension, particularly for complex climate terms.

Conclusion

This study looked at climate change knowledge, beliefs, and intentions among 73 students in a linguistically diverse middle school setting. In the full sample (N = 73), beliefs correlated positively with intentions (r = .365, p = .002). For the subgroup of students with immigration experience and heritage language maintenance (N = 11), results are reported descriptively only because the small sample size precluded valid correlation analysis. These students also showed a different correlation pattern where climate knowledge and beliefs were negatively related (r=-.315, p=.345), even though they demonstrated stronger understanding of how humans impact climate change (M=3.64). My

preliminary findings suggest that students with different language and immigration experiences may respond differently to climate education, and future research with larger samples could explore whether schools might benefit from approaches that recognize and build on the diverse environmental knowledge these students bring.

Conflict of Interest Statement

The author declares no conflicts of interest.

Data Availability Statement

The datasets generated and analyzed during the current study are available from the author upon reasonable request.

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Appendix 1:

Figure 1 : *Gender distribution of Study Participants*

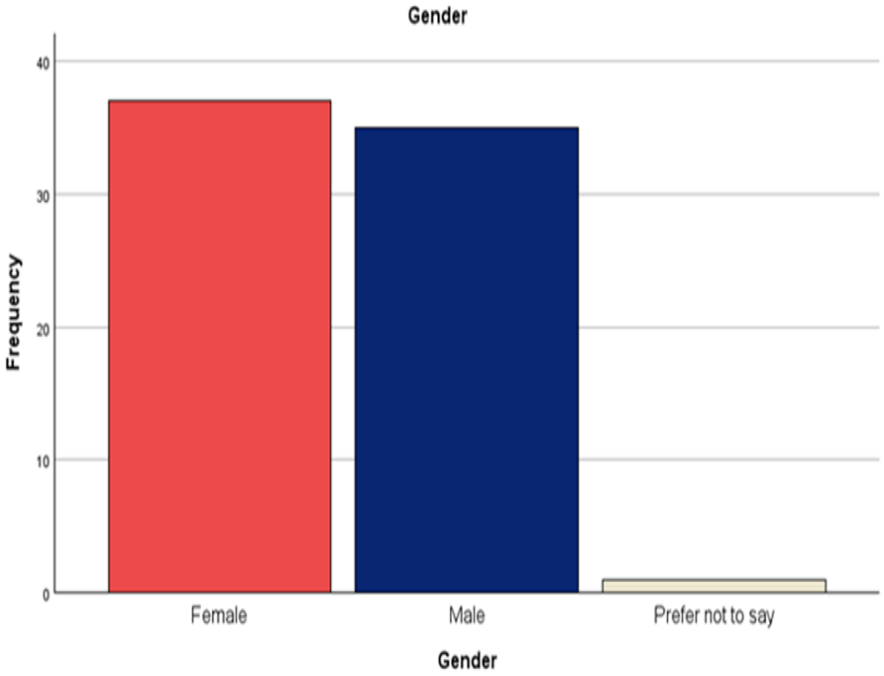


Figure 2: *Grade distribution of Study Participant*

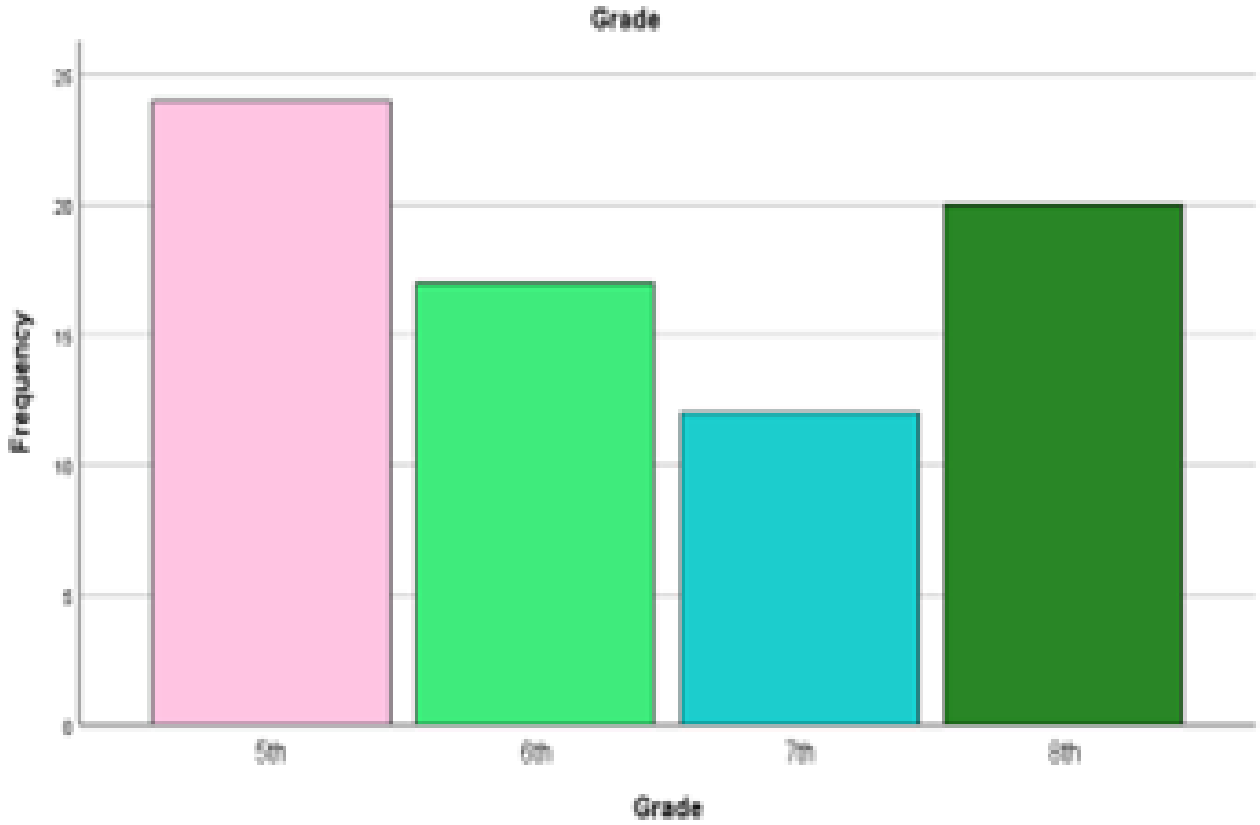


Figure 3: *languages Spoken at Home by Study Participants*

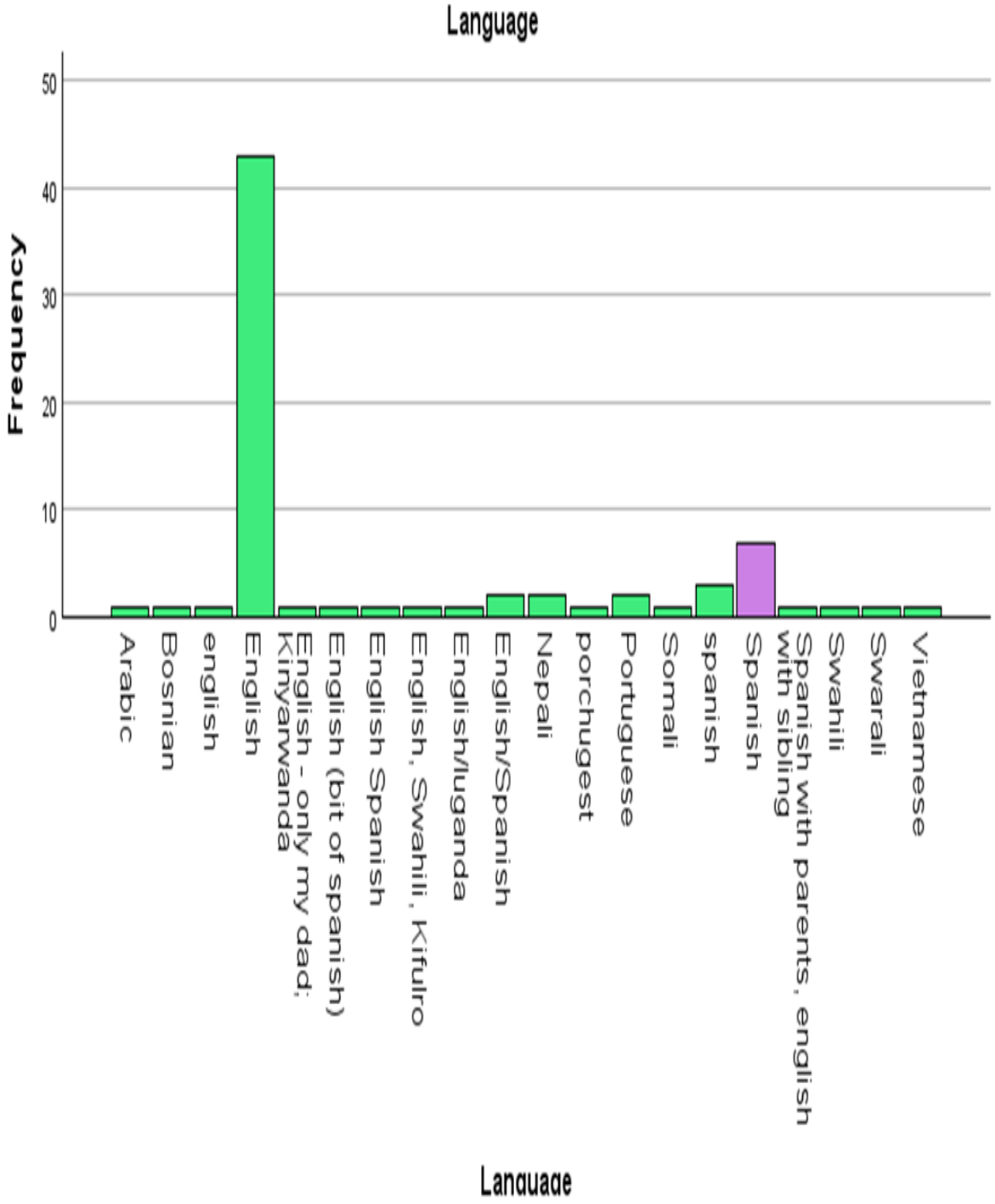


Figure 4: *Nativity of Study Participants*

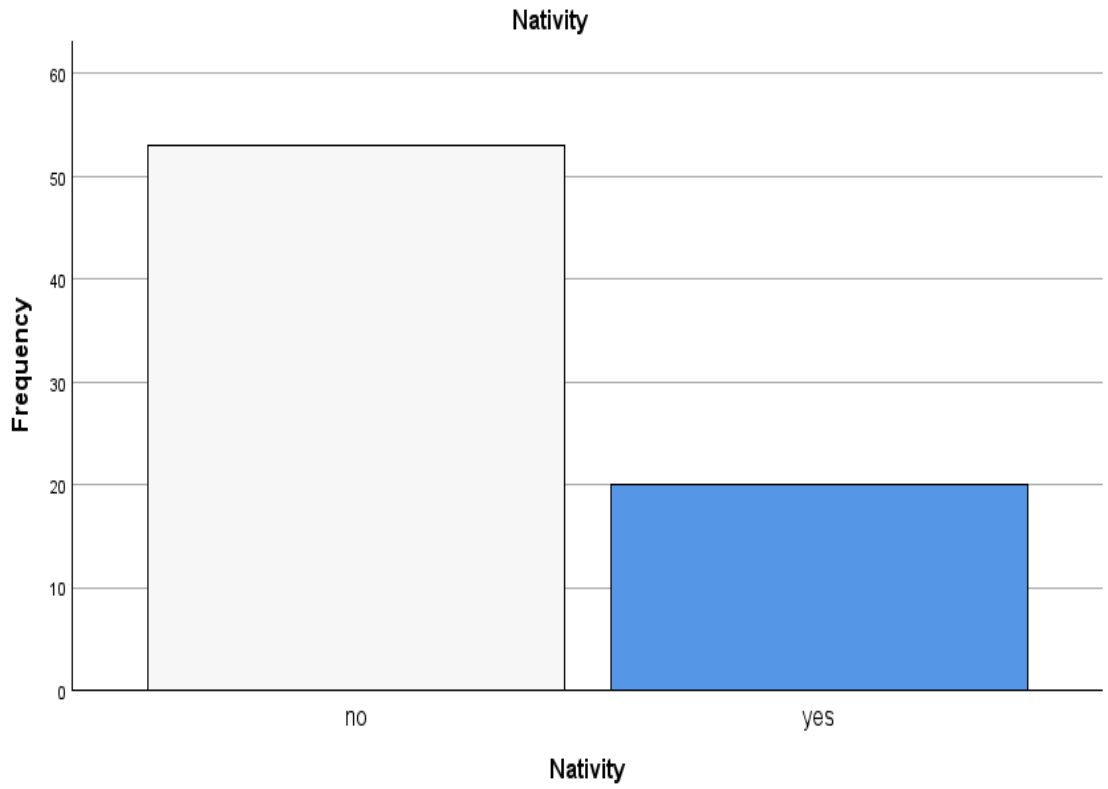
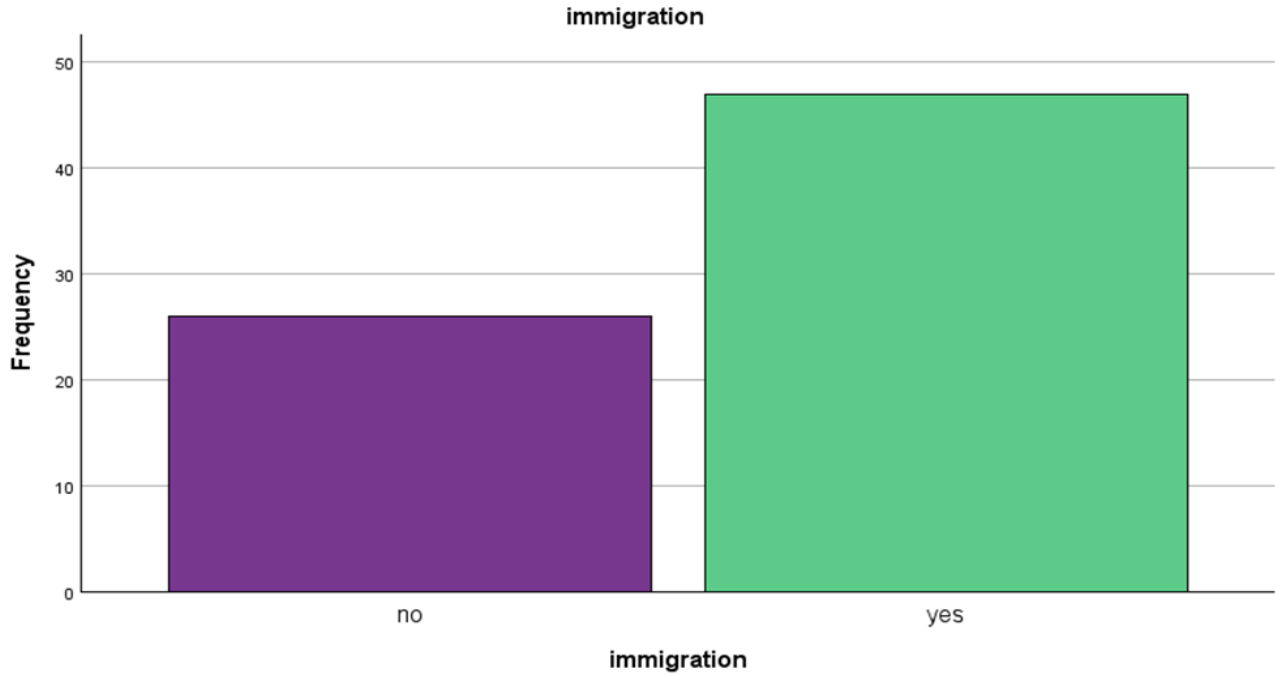


Figure 5: *Immigration Status of Study Participants*



Appendix 2

Climate Change Knowledge Survey

Start of Block: Introduction

Greetings, Middle School Students,

I warmly invite you to participate in my Climate Change Knowledge Survey. This survey aims to understand your views and knowledge about climate change, an important global issue.

Participation in this survey is voluntary. I understand that not everyone may want to take part; however, if you are interested in sharing your thoughts on climate change, I would greatly appreciate your input.

Your responses will be kept confidential and will be used for research purposes only. The information will help me understand what students know about climate change and guide future instructional practices.

Thank you for considering participation in this survey.

Section 1: Background Information

1. What is your gender?

   ☐ Male ☐ Female ☐ Prefer not to say

2. What grade are you currently in?

   ☐ 5th ☐ 6th ☐ 7th ☐ 8th

3. What language do you speak most often at home?
4. Were you born in New Hampshire (NH)?

   ☐ Yes ☐ No

5. Did you move here from another country?

   ☐ Yes ☐ No

Section 2: Knowledge

1. What (if anything) is the difference between weather and climate?

2. If you believe climate change can occur naturally, can you think of an example?

3. What (if any) are the impacts of cars on climate change?

4. How would you describe the greenhouse effect?

Section 3: Beliefs

For each statement, choose the response that best represents your opinion.

Statement	Strongly Disagree (1)	Somewhat Disagree (2)	Neither Agree nor Disagree (3)	Somewhat Agree (4)	Strongly Agree (5)
I believe our climate is changing.	☐	☐	☐	☐	☐
I am concerned about global climate change.	☐	☐	☐	☐	☐
I think there is proof of global climate change.	☐	☐	☐	☐	☐

Climate change will impact the environment.	☐	☐	☐	☐	☐
Individuals can help stop global climate change.	☐	☐	☐	☐	☐
Human activities cause global climate change.	☐	☐	☐	☐	☐
Climate change has a negative effect on our lives.	☐	☐	☐	☐	☐
I can do my part to make the world a better place for future generations.	☐	☐	☐	☐	☐
We cannot do anything to stop global climate change.	☐	☐	☐	☐	☐
I care about environmental problems and issues.	☐	☐	☐	☐	☐

Open-ended question:

In what ways have you or your family felt the effects of climate change? Please provide an example.

Section 4: Intentions

Statement	Strongly Disagree (1)	Somewhat Disagree (2)	Neither Agree nor Disagree (3)	Somewhat Agree (4)	Strongly Agree (5)

People make environmental problems sound worse than they really are.	☐	☐	☐	☐	☐
The things I do don't impact the environment.	☐	☐	☐	☐	☐
Trying to fix environmental problems is a waste of time.	☐	☐	☐	☐	☐
There's not really anything I can do to help solve environmental problems.	☐	☐	☐	☐	☐

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"Sir, Please Can I Speak Twi?": Examining Students' Linguistic Rights in Senior High Schools in Ghana

ABSTRACT

In multilingual societies, the selection of languages in educational institutions can mirror and perpetuate power imbalances, thus influencing students' educational experiences and sense of identity. This paper examines how language choices in the classroom reflect power dynamics and affect students' linguistic rights. Drawing on **Linguistic Human Rights** (Skutnabb-Kangas & Phillipson, 1995) and **Maher and Tetreault's (1994)** framework of classroom dynamics, the study investigates how classroom interactions construct and sustain linguistic power. Data were collected from four Senior High Schools in the Ashanti region, chosen for their accessibility and proximity. The study involved eighty (80) participants, comprising eighteen (18) students and two (2) language teachers from each school. Data collection instruments included semi-structured interviews and participant observation. All interviews were recorded, transcribed verbatim, and analyzed using an iterative coding process to identify recurring themes and patterns. The study revealed that language teachers often functioned as gatekeepers and enforcers of the official language policy, adversely affecting students and causing feelings of shame, anxiety, and isolation. A notable finding from the study was that school administrators and teachers equated English proficiency with innocence while viewing the use of indigenous languages as a sign of guilt. The study concluded that power dynamics in the classroom have detrimental effects on students, leading to the suppression of their linguistic rights. These dynamics not only affect students' emotional and psychological well-being but also their overall educational experiences, emphasizing the urgent need for a more inclusive and equitable language policy in Ghanaian Senior High Schools.

Keywords: *Ghana, Indigenous languages, Linguistic rights, Mother-tongue, Power*

Introduction

In numerous postcolonial societies, the selection of instructional language remains a reflection of historical power dynamics and social hierarchies. In Ghana, the influence of language on identity and heritage is significant, with over seventy (70) indigenous languages in use (Owu-Ewie & Eshun, 2019). Despite gaining independence, English has become the dominant language of instruction from Basic Three onward, highlighting the enduring legacy of colonialism (Cobarrubias, 1983). This preference for English has resulted in the marginalization of indigenous languages, affecting the effective delivery and reception of education among students from diverse linguistic backgrounds (Owu-Ewie, 2009; Owu-Ewie & Edu-Buandoh, 2014). The historical prevalence of English in education continues to shape language policy and power dynamics in today's classrooms, inadvertently privileging English while marginalizing indigenous languages (Spolsky, 2004). The strict adherence to English in classrooms, along with the requirement for students to seek permission to use their native languages, reflects institutional policies instituted by the Ghana Education Service (Edu-Buandoh & Otchere, 2012; Owu-Ewie & Edu-Buandoh, 2014).

The 1992 Constitution of Ghana recognizes the country's linguistic diversity and includes provisions for linguistic rights in education. Specifically, Article 39(3) states that "the State shall foster the development of Ghanaian languages and pride in Ghanaian culture." This constitutional commitment is further supported by Ghana's language-in-education policy, which mandates that children be instructed in their mother tongue or another familiar Ghanaian language during the first three years of primary school (Owu-Ewie & Eshun, 2015), after which English becomes the primary medium of instruction. However, in practice, the responsibility for implementing this policy lies with the Ghana Education Service (GES), which oversees the coordination and execution of all pre-tertiary education programs and policies. Through its Code of Conduct for Teaching Staff, the GES subtly promotes the use of English among students, thereby reinforcing its status as the language of authority and academic legitimacy (G.E.S. Code of Conduct for Teaching Staff, 2017). This institutional directive places classroom teachers at the forefront of enforcing language policies, thereby reinforcing the perceived dominance of English over indigenous languages in educational settings. Moreover, the prioritization of English proficiency in educational settings is associated with academic success and social acceptance, placing students proficient in indigenous languages at a disadvantage (Asilevi, 2011; Owu-Ewie & Edu-Buandoh, 2014). The existing power dynamics at play pose significant challenges for students in exercising their linguistic rights, embracing their cultural identities, and securing equitable access to educational opportunities (Phillipson & Skutnabb-Kangas, 1995; Wee, 2011).

While previous research has investigated language policy and its implementation in Ghana, there is limited exploration of how these policies intersect with power dynamics at the classroom level, shaping students' experiences of their linguistic rights. Much of the existing literature focuses on policy analysis or primary education (Bisilki, 2018; Owu-Ewie, 2017), leaving a notable gap in the context of Senior High School and in the perspectives of students themselves. By focusing on classroom interactions, teacher-student relationships, and students' views on language use, this study aims to fill that gap, offering empirical insights into how linguistic rights are negotiated, contested, and, at times, suppressed within Ghanaian Senior High Schools.

Literature Review

This section of the paper looks at language rights. It also focuses on the power dynamics present in language classrooms and the difficulties associated with asserting linguistic rights.

Language Rights in Education

The term "language rights" refers to the rights of individuals and communities to freely choose and utilize their preferred language(s) in various aspects of public and private life, including education, governance, and media, without facing discrimination or marginalization based on their language identity (Brock-Utne, 1992; Hornberger, 1998; Skutnabb-Kangas & Phillipson, 2023; United Nations, 2010). Scholars have focused on outlining the challenges encountered by speakers of minority languages, who often face linguistic discrimination (Phillipson, 2003; Skutnabb-Kangas & Phillipson, 2023; Tupas, 2023). Members of these minority language communities frequently experience discrimination, as their languages are suppressed by dominant groups seeking to eliminate distinctiveness in both public and private spheres, often through forced assimilation (Wee, 2011).

Expanding the discussion on linguistic discrimination, May (2005) identifies three movements associated with the concept of language rights: Language Ecology, Linguistic Human Rights, and Minority Language Rights movements. The Language Ecology movement primarily concerns itself with language preservation and revitalization. The Linguistic Human Rights movement is specifically concerned with linguistic human rights, distinguishing between 'necessary individual rights' and 'necessary collective rights. The former focuses on the right to identify with one's mother tongue, have this identification accepted and respected by others, use the mother tongue in most official situations (including schools), and, if one's mother tongue is not an official language in the country of residence, has the right to become bilingual in both the mother tongue and the official language. The latter ensures that minorities are allowed to maintain their distinct groups, languages, and cultures (Skutnabb-

Kangas, 2000). The Minority Language Rights movement centers on language in ethnically diverse societies, arguing that language rights are needed to ensure equitable relationships between speakers of the dominant and minority languages. This paper aligns more closely with the Linguistic Human Rights (i.e., 'necessary individual rights') movement. Here, language rights are viewed as linguistic rights, and therefore, the two terms are used interchangeably (Paulston, 1997).

In the realm of education, it is crucial to recognize and respect linguistic rights, as overlooking these rights can lead to feelings of inferiority and hinder educational achievement (Phillipson & Skutnabb-Kangas, 1995). Research consistently shows that students achieve the best learning outcomes when taught in their native languages. This approach enhances comprehension, cognitive development, and academic performance (Adongo & Nsoh, 2023; Hurwitz & Kambel, 2020), improving their ability to grasp complex concepts and actively engage in learning. This, in turn, improves the overall quality of education and reduces dropout rates (Bisilki, 2018). Furthermore, education in a native language empowers students by validating their cultural and linguistic identity, nurturing self-esteem, and building the confidence crucial for personal and academic growth. In Ghana, English is primarily employed as the language of instruction, particularly in Senior High Schools. This practice leads to the discrimination and marginalization of students who are only proficient in their indigenous languages. Conversely, students whose mother tongues are incorporated into the curriculum or are commonly spoken in their communities, frequently those who speak dominant local languages, tend to navigate this linguistic landscape more comfortably. In contrast, those from minority language backgrounds face an additional disadvantage, as their native languages are often excluded from the school curriculum and undervalued in formal educational settings. Promoting linguistic rights in the classroom would empower students to confidently use their native languages without the fear of negative repercussions, as noted by Paulston (1997).

Given Ghana's historical ties as a former British colony and the enduring significance of English in contemporary society, emphasizing bilingual education policies is crucial. This is especially applicable to nations with colonial legacies, where incorporating students' native languages into the curriculum is essential (Ofosu-Dwamena, 2019; Opoku-Amankwaa, Edu-Buandoh, & Brew-Hammond, 2015). By doing so, students can benefit from the cognitive and social advantages of bilingualism, thereby affirming their linguistic rights through their mother tongue while gaining proficiency in English.

Taken together, the studies have outlined the significance of mother tongue–based education while also revealing tensions regarding the conceptualization and implementation of linguistic rights. Some research (Skutnabb-Kangas & Phillipson, 2023; Tupas, 2023) emphasizes the themes of rights,

identity, and equity, whereas other scholars point to the structural and political limitations that impede the realization of these rights in practice. Although research advocating for bilingual or mother tongue instruction aligns with Ghana's policy ideals, it contrasts with findings that demonstrate the continued dominance of English in educational settings, which marginalizes local languages. This contradiction emphasizes a persistent divide between international rights-based frameworks and the actual practices observed in schools and classrooms. These tensions set the stage for a deeper exploration of how such inequities are perpetuated through power dynamics within the classroom.

Power Dynamics in the Language Classroom

The language classroom can be seen as a representation of broader societal structures that embody the ideologies, expectations, and perceptions influenced by the larger society (May, 2014; Mayr, 2015). Power dynamics significantly influence interactions between teachers and students within the educational setting, ultimately shaping educational outcomes. Extensive research over the years has concentrated on power relations within the classroom, with a specific focus on the dynamics between teachers and students (Canagarajah & Said, 2011; Kearney, Plax, Richmond, & McCroskey, 1984).

Erickson (1986) argues that teachers hold legitimate power in the classroom due to their institutional position and superior knowledge of the subject matter. Teachers exert their power through curriculum decisions, classroom management, and assessments. Kearney et al. (1984) support Erickson's assertion by affirming that teachers have the capacity to influence students to engage in activities they might not have undertaken without such influence. This underscores the teacher's role in shaping student behavior through their authority, highlighting the inherent power dynamics present in the educational process. Nevertheless, power in the classroom is not solely about the teacher governing students; rather, it involves dynamic, interactive relationships. Students also exert power through their active participation and by resisting the acquisition of the teacher's intended knowledge. This resistance can shift the dynamics of interaction, constitute a form of power and challenge the authority of the teacher, thus recognizing students' capacity to influence the educational process.

Apart from the teacher-student relationship in classrooms involving power dynamics, the language used for instruction and communication further exemplifies power structures (Brock-Utne, 2001, 2020). Language in the classroom functions as a complex tool of both empowerment and oppression, closely linked to power dynamics. The selection of language by educators and learners can either empower students by validating their linguistic identities or perpetuate linguistic biases and discrimination (Simpson, Mayr & Statham, 2019). For instance, within many educational settings in Ghana, English, as the dominant language, often takes precedence over minority indigenous languages,

thus reinforcing existing power differentials and marginalizing students who speak non-dominant languages. Furthermore, language serves as a gatekeeping mechanism, in which proficiency in specific languages symbolizes privilege and is a key to accessing opportunities (Asilevi, 2011).

Upon critical examination, it becomes apparent that the classroom is far from neutral due to the inherent power dynamics. Often, teachers, without conscious awareness, contribute to perpetuating these power imbalances by favoring the use of the dominant language in their interactions with students (Freire, 1972).

These studies demonstrate that power dynamics in the language classroom are both structural and relational, functioning through teacher authority, student participation, and the selection of instructional language. While earlier research emphasizes the teacher's role in shaping classroom behavior (Erickson, 1986; Kearney et al., 1984), more recent studies (Brock-Utne, 2020; Simpson, Mayr, & Statham, 2019) highlight how language choices can either reinforce or challenge these power relations, particularly in multilingual and postcolonial contexts. These dynamics directly affect students' ability to exercise their linguistic rights, exposing ongoing inequities between speakers of dominant and minority languages.

Challenges and Barriers to Exercising Linguistic Rights

Ghana is committed to embracing international, regional, and national laws that endorse the use of the mother tongue as a medium of instruction in educational institutions (Owu-Ewie, 2017). However, the practical application of this commitment encounters several challenges and barriers within senior high schools, impacting students' academic performance and cultural identity.

Bisilki (2018) identifies the gap between policy and practice as a primary obstacle to exercising linguistic rights. Despite existing policies favoring the use of mother tongues in education, their implementation remains inconsistent and superficial. The Ghana Education Service's guidelines supporting the use of local languages in early education lose momentum as students' progress to higher levels, leading to the predominance of English as the medium of instruction at the senior high school level. This marginalizes indigenous languages and restricts students' opportunities to learn in their first language. Another significant challenge is the lack of trained language teachers proficient in both subject matter and students' mother tongues. The lack of proper training programs emphasizing bilingual education contributes to this issue, further exacerbated by the absence of continuous professional development opportunities for teachers in mother tongue instruction (Opoku-Amankwaa, Edu-Buandoh & Brew-Hammond, 2015). Additionally, societal attitudes towards local languages are crucial to the challenges faced. Some educators, parents, and policymakers believe that proficiency in

English is essential for academic and professional success, undermining the value of local languages in educational settings and perpetuating their underutilization (Owu-Ewie & Edu-Buandoh, 2014). This, in turn, results in social and academic disadvantages for students attempting to exercise their linguistic rights.

Ghana's rich linguistic diversity (Owu-Ewie & Eshun, 2019) presents both opportunities and challenges. While this diversity is a cultural asset, it complicates the implementation of a standardized policy on mother-tongue instruction, often leading to the exclusion of indigenous languages due to contentious language selection and political implications (Bamgbose, 2000). Moreover, examination and assessment systems in Ghanaian Senior High Schools, predominantly conducted in English, can disadvantage students proficient in their mother tongue, as their comprehension and articulation in English may not accurately reflect their knowledge and capabilities. This emphasizes English in high-stakes testing, perpetuating the marginalization of local languages and sustaining the cycle of linguistic disadvantage (Amankwah, 2020). Urban-rural disparities also influence the effective exercise of linguistic rights, with urban schools having greater access to resources, trained teachers, and support for English-medium instruction than rural schools, thereby intensifying educational inequality (Trudell, 2016).

Recent studies (Tupas, 2024; Waschak, 2025) affirm that these barriers continue to exist, revealing that, despite established policy frameworks, students' linguistic rights are unevenly realized across different schools. These studies emphasize that challenges related to policy implementation, teacher capacity, societal attitudes, assessment systems, and resource allocation collectively perpetuate a cycle of linguistic disadvantage.

Collectively, the evidence underscores the ongoing disparity between Ghana's policy commitments and the realities faced in classrooms. These issues present a clear rationale for this study, which investigates how power dynamics and language policies in Senior High Schools influence students' ability to exercise their linguistic rights. To address this gap, the study employs Linguistic Human Rights theory for understanding the interconnections between language, power, and student agency in Ghanaian Senior High Schools.

Theoretical framework

Linguistic Human Rights Theory

Linguistic Human Rights Theory by Skutnabb-Kangas and Phillipson (1995) highlights the right to preserve and utilize one's native language. In countries with linguistic diversity, language regulation is essential to address concerns related to language dominance. This regulation is often established

when a linguistic community perceives a threat to its language from others. Governments respond to these challenges by creating legal frameworks that define the official and public use of languages, particularly in law, administration, and education. These linguistic human rights are the foundation for the promotion, protection, and study of recognized languages within a specific jurisdiction.

Owu-Ewie's (2017) exposition on Linguistic Human Rights delineates three fundamental approaches: the Liberal Multiculturalist Approach (Patten, 2003), the Liberal Neutralist Approach (Levy, 2000), and the Democratic Liberal Approach (Valadez, 2001). These approaches provide distinct perspectives on the recognition and support of minority languages within a multilingual society. The Liberal Multiculturalist Approach, advocated by Patten (2003), emphasizes the equitable recognition of minority languages within a liberal state, based on principles of fairness, individual and cultural identity, and equal access to opportunities. Fair treatment of all languages, including minority languages, in public institutions, services, and businesses is essential. Recognizing minority languages supports individual and cultural identity, important for one's sense of self and community. Using minority languages in public domains provides equal opportunities for all citizens. The Liberal Neutralist Approach, as described by Levy (2000), stresses the practical advantages of adopting a common language in a society that has multiple languages. It posits that a common language ensures equal access to opportunities for all citizens, facilitates effective participation in political processes, and contributes to the efficient functioning and stability of state institutions. For example, the language policy of education in Ghana aligns with this approach, with English serving as the official language and only eleven (11) indigenous languages being promoted, while others are marginalized. English is prioritized over potentially at the expense of indigenous languages. The Democratic Liberal Approach, proposed by Valadez (2001), emphasizes the importance of fostering mutual understanding and participation among diverse cultural groups. Language is viewed as a tool to familiarize citizens with each other's beliefs and perspectives, promoting mutual understanding. All language groups should have equal opportunities to participate in shared institutions, which contradicts the education language policy in Ghana, as most indigenous languages have been excluded from the curriculum (Owu-Ewie, 2017).

This study primarily utilizes Owu-Ewie's (2017) elaboration of the Linguistic Human Rights (LHR) theory, which builds upon the foundational ideas introduced by Skutnabb-Kangas and Phillipson (1995). It specifically applies the Liberal Multiculturalist and Democratic Liberal interpretations of this framework, as these perspectives align closely with the study's emphasis on linguistic equity, inclusion, and participation in Ghanaian Senior High Schools. In contrast, the Liberal Neutralist approach is employed as an alternative ideological stance, highlighting the dominance of English within the Ghanaian educational system and its implications for students' linguistic rights.

Consequently, the framework provides an interpretive foundation for analyzing emergent themes from the data.

Methodology

This study utilized a qualitative design and relied solely on primary data. Data were collected from four senior high schools across three districts in the Ashanti region. These schools were selected based on their accessibility and proximity to the researchers (Amoah & Eshun, 2015). The study included a total of eighty (80) participants, comprising eighteen (18) students and two (2) language teachers from each school. The purposive sampling technique was employed to select participants, considering the diverse linguistic backgrounds of students in Ghanaian senior high schools, where admission is contingent on academic merit and individual preference. Students were purposely selected to ensure representation from varied linguistic backgrounds, while language teachers were chosen based on their willingness to participate in the study. Two instruments were used for data collection: semi-structured interviews with teachers and students, and participant observation. Students were interviewed in a focus group comprising nine members, while the two (2) teachers were interviewed jointly. This approach was to create a supportive and less intimidating environment to mitigate any fear of mockery or victimization, thus encouraging more candid and open participation. Additionally, participant observation was utilized to gain insights into the power dynamics between teachers and students regarding language use. This approach provided additional perspectives that may not have been uncovered through interviews alone. Reflexivity was maintained through regular journaling and team discussions, critically examining how the researchers' presence and perspectives might affect data collection and interpretation. Efforts were also made to minimize the impact of the researchers' presence on participants' natural behavior. Researchers spent time in the classrooms before formal data collection to build rapport and allow participants to become accustomed to their presence, thereby reducing potential reactivity. Observations were conducted unobtrusively, and researchers refrained from interacting with participants during observation sessions to capture more authentic behaviors and interactions. Informed consent was obtained from all participants, ensuring they were fully aware of the study's purpose, potential risks, and their right to withdraw without any repercussions. Confidentiality and anonymity were strictly maintained to protect participants' identities and personal information. Pseudonyms were used in the transcriptions. Additionally, efforts were made to ensure that the data collection process did not disrupt the normal functioning of the schools or place any undue burden on the participants. Interviews were audio-recorded with participants' consent, transcribed verbatim, and inductively coded to identify recurrent themes and patterns within the data. The codes

were then refined and organized into overarching themes through constant comparison, ensuring that the analysis remained grounded in participants' perspectives. For instance, statements about students being silenced or ignored by teachers were initially coded under 'voice,' while discussions about the enforcement of English-only policies were coded under 'authority.' Over time, related codes were grouped into overarching themes.

Two main research questions guide this study:

a. What challenges do students face when exercising their linguistic rights in senior high schools?

b. How do power dynamics within the language classroom affect students' ability to exercise their linguistic rights in senior high schools?

Results and Discussion

This section of the study answers the main research questions posed.

What challenges do students face when exercising their linguistic rights in senior high schools?

This research question aimed to investigate the challenges and barriers Senior High School students face when exercising their linguistic rights in school. Responses from the participants revealed that students encounter challenges when attempting to exercise their linguistic rights. The following statements gathered from the interviews with students and teachers indicated specific challenges and barriers that hinder students' use of their preferred language at the senior high school level:

> *...you will be punished because you are not allowed to speak Twi in the class. So, when you speak Twi in class, they [teachers] will punish you or give you some work to do.* (SAS1)

A second-year student affirmed this when she said:

> *I was punished to write, "I won't speak Twi again in class". I was to write a whole big notebook.* (SCS4)

Another student from School B also said:

> *As soon as you start using the [indigenous] language, the teacher will let you stop. The teacher will say, 'Use the English language to answer the question'.* (SBS2)

These statements were confirmed by a teacher in school A.

> *Since this is an institution, English as the official language must be used during instructional periods. When a child uses a preferred language apart from the English language, automatically that child will be punished*. (SAT1)

These disciplinary practices demonstrate that English is strictly upheld as the primary

instructional language within educational settings. This positions language teachers as both gatekeepers and enforcers of the official language policy in the academic environment. Such enforcement constrains students' ability to utilize their preferred languages and reflects systemic power dynamics that privilege English proficiency over mother-tongue communication (Skutnabb-Kangas & Phillipson, 1995). This is consistent with Onwutalobi's (2024) study conducted in Nigerian primary and secondary schools, where the emphasis on English proficiency often undermines the use of indigenous languages.

The study also revealed that, in addition to serving as gatekeepers, language teachers' attitudes and behaviors also hindered students from using their preferred language, as evidenced by a comment made by a first-year student:

> *if you are fluent in the speaking of English, the teacher likes you, but when you can't speak well, the teacher will ignore you every day*. (SBS1)

A teacher from school A also indicated,

> *I shout at them and shut them down and tell them to speak in English. So, you will realize that once you ask them to speak in English, you mute them completely*. (SAT2)

Another teacher also indicated,

> *Frankly speaking, as a teacher of English, I am always strict on the use of the English language during classroom discussions, and when that happens, only a few students become interactive.* (SBT1)

The excerpts, confirmed by classroom observations, reveal that language proficiency establishes a hierarchy among students, favoring those who are fluent in English while marginalizing others. Throughout the data collection process, it became evident that language teachers primarily engaged with students proficient in English, unintentionally overlooking certain segments of the class during discussions. This pattern, consistently observed during the researcher's time in the schools, mirrors broader power structures in Ghanaian education, where colonial legacies and the societal value placed on English continue to influence student-teacher interactions.

Disturbingly, the data revealed instances of language teachers requesting money from students when they spoke their preferred languages. This not only poses financial challenges for the students but also discourages the use of their preferred languages. A first-year student expressed this concern in a statement.

> *Even the teachers choose some people [students] on campus, if they hear you speaking Twi, they will write your name. Later, they[teachers] will collect you*

[sic] one cedi. (SAS2)

Strikingly, language teachers' marginalization of non-English-speaking students was not confined to the classroom. Students who communicated in their preferred languages were sometimes overlooked. This was expressed in a response from a third-year student at School C:

> *My friend and I were fighting. So, I went to the teacher to report my friend. When I went, I was not able to use the English language to express myself very well. So, I tried to use the Twi. When I started, he sacked me and said I should go; he is not going to listen to what I have to say if I can't express myself in English*. (SCS4)

A language teacher interviewed confirmed this when he said,

> *As a language teacher, you are expected to carry the language everywhere and every time. So, you are being looked up to during classroom instruction and outside the classroom. A student cannot come to me and speak Twi; I will sack you. I can't encourage other languages aside from the English language.* (SDT1)

In all the senior high schools included in this study, it was observed that none had displayed the usual "SPEAK ENGLISH ONLY" signage on their walls, as is commonly seen in other educational institutions. This stands in contrast to the observations made by Owu-Ewie and Edu-Buandoh (2014) in their study, where they reported encountering signs such as "SPEAK ENGLISH ONLY," "SPEAK ENGLISH," "SPEAKING GHANAIAN LANGUAGE IS PROHIBITED," and "DO NOT SPEAK VERNACULAR." Nevertheless, the study revealed that despite the absence of such inscriptions, the students had fully embraced the English-only policy as the school's language policy through acculturation. A first-year student indicated,

> *For me, my first day in this school, I realized that all the students were speaking English. So, I couldn't speak my preferred language.* (SCS4)

Another first-year student confirms this statement.

> *In this school, if you don't do elective French or elective Twi, don't bother yourself to speak Twi. The only preferred language is English. So, if you are walking on campus, you can't talk, you are quiet.* (SBS2)

The study further revealed that students are hesitant to use their preferred languages in school due to the apprehension of being assessed in English, despite finding it challenging to express themselves in English. A third-year student at school B echoed this sentiment:

> *when you speak Twi always, it makes the subjects difficult for you, especially*

when writing essays during exams. (SBS5)

Another student indicated:

... in the long run, our final exams are going to be in English, so if you continuously speak the native language, which is our preferred language, it is not going to help you. (SAS3)

The data indicate that students express concern about the potential stigma of being perceived as uncivilized or illiterate and the fear of being given derogatory nicknames or being laughed at. As a result, this apprehension discourages them from using their preferred languages in school environments. This is expressed in a statement by a second-year student.

You know, at our place, when you finish cooking and you want to serve, we say 'kwantere'(ladle). So, at the dining hall, I told one of the girls that "fa kwantere no m'ame" (take the ladle for me). The girl said, "You are uncivilized". I became sad the whole day. (SCS4)

A first-year student also confirmed this statement as she said:

when I speak Twi in class, some students make fun of me. (SAS2)

Another first-year student affirmed the statements as he said:

One time, a teacher came to class to teach. He pointed to a friend to answer a question and my friend spoke typical Twi. As soon as he started the whole class burst into laughter including the teacher. I was expecting the teacher to tell the class to stop laughing. (SDS1)

The aforementioned statements regarding the stigmatization of students for speaking their preferred languages and receiving derogatory labels in school agree with previous research conducted by Owu-Ewie and Edu-Buandoh (2014). Their research revealed a perception among some individuals that Ghanaian languages are uncivilized and backward, leading to disrespect toward those who speak them. Therefore, students studying Ghanaian languages were unfairly accused of being uncivilized.

An interesting finding from the data reveals that school administrators and teachers tend to link English proficiency with innocence and view the use of indigenous languages as a sign of guilt. A student who is fluent in English is consistently perceived as innocent and is spared punishment, while a student who is not proficient in English and uses their indigenous language is often perceived as the wrongdoer or found guilty of the offence. This observation was shared by a second-year student from school D.

When you have an issue and you go to the teacher, the one whose preferred language is English will be able to express him or herself well, and when you

> *fail to use the English language to express yourself, they will say that you are the one lying. Meanwhile, you are not the one lying. It is bad.* (SDS3)

A third-year student in school B confirmed this as he said,

> *We were to face the school authorities for fighting. And when we faced them, the school authorities questioned us in English, but I tried to express myself in Twi, which they ban[sic] me not to speak Twi. I was not to be blamed, but because I was not able to speak English, I was blamed for the fault*. (SBS2)

Although the first research question was to examine the challenges that students encounter when asserting their linguistic rights in school, certain compelling findings emerged from the data that piqued the researchers' interest. The researchers observed that when students were punished for using their preferred languages, it caused them significant emotional and psychological distress, leading to feelings of shame, anxiety, and isolation. This indicates that violations of linguistic rights extend beyond classroom participation and affect students' well-being and sense of inclusion.

Research question 2: How do power dynamics within the language classroom affect students' ability to exercise their linguistic rights in senior high schools?

This section seeks to investigate the impact of power dynamics within the language classroom on the assertion of linguistic rights by Senior High School students. The study leveraged themes such as mastery, voice, authority, and positionality, as identified in prior research on classroom power dynamics (Maher & Tetreault, 1994), to structure the findings. The study revealed that power dynamics in the language classroom had negative impact on students, resulting in the suppression of their linguistic rights.

Mastery

The theme of mastery centers on students' comprehension of the subject matter and their acquisition of knowledge (Maher & Tetreault, 1994). Interview data from both students and teachers indicate the existence of power dynamics in the language classroom. These power dynamics significantly impact students' ability to assert their linguistic rights to use and receive education in their preferred languages, thereby influencing their learning experiences and impeding the learning process. A third-year student expressed this sentiment in a statement.

> *Those of us who have a bad background in the English language, we are*

unable to participate in class. We find it difficult to understand and answer questions in class. (SCS3)

Another third-year student in school B pointed out that,

Speaking English is very hard for us. So, we will be sitting down and we will be waiting for someone to answer the teacher's question. Sometimes, we understand what he is trying to say, but speaking English is the problem. (SBS2)

A teacher confirms these statements as he says:

At times during teaching, when you explain concepts to students, they find it very difficult to get an understanding of it, but the moment you switch the language to Twi, then you see that they will start contributing. (SCT1)

He added,

One afternoon, we were looking at the Weaver Bird poem. During the introduction to the poem, using English, I could see that the students' facial expression tells me they don't understand the concept. So, I switched to Twi, come and see. (SCT1)

Another teacher in school C added that,

During exams, I see that concepts that we engage students in Twi, they are able to score higher than those we use the English language. (SCT2)

He further added,

I think the use of English throughout the lesson affects students' understanding. That is why we teach more, but we have low performance in our school. (SCT2)

These excerpts demonstrate how the exclusive use of English limits mastery, perpetuating inequities among students and favoring those who are proficient in English. This perspective aligns with the argument put forth by Adongo and Nsoh (2023), which posits that honoring students' linguistic rights by incorporating their preferred languages during classroom instruction significantly enhances learning, more so than relying solely on a second language such as English. Furthermore, this trend underscores a systemic issue: the dominance of English in Ghanaian education continues despite students' ability to fully engage when allowed to use their indigenous languages. Embracing these languages not only deepens students' understanding and mastery of the subject matter but also affirms their linguistic identities, thereby empowering them.

Voice

The theme of linguistic self-expression, commonly called "voice," emerged in the data. It captures students' ability to express themselves in the classroom. The analysis of interview data revealed that students felt a sense of negativity and insignificance when they were unable to freely express their thoughts in their preferred languages due to restrictive power dynamics.

One interviewee highlighted how power dynamics impeded his full participation and sense of worth within the academic environment:

> *I went to the vetting room for a position. The question was coming in English. So, I couldn't express myself. If it were Twi, I could say something. I was disqualified because of English. So, I was sad.* (SAS3)

A second-year student indicated that

> *Our teacher asked us to do a presentation. When we were about to do it, one of my friends was not able to express herself in English. So, the teacher said that if she can't speak English, all the group members should stop presenting. We went to sit down; our presentation didn't come on.* (SAS5)

Another second-year student indicated

> *It makes us lonely. Oh, brɔfo no! [Oh, the English]. It makes us quiet and inactive in class.* (SBS2)

He further added,

> *The teachers tell us to speak English and not Twi. So, I cannot express myself in class. I know how to talk, but because of English.* (SBS2)

A teacher confirmed these statements as he said:

> *I ask students to speak English only in my class. Those who are good in English contribute their quota and express themselves. But some who can't speak English are always dull and silent, and I think they are just minding their business*. (SCT2)

The excerpts demonstrate how restrictive language policies in the classroom can silence students, particularly marginalizing those who are less proficient in English and creating a sense of invisibility. This phenomenon directly connects to Skutnabb-Kangas and Phillipson's (1995) theory of Linguistic Human Rights, which underscores the importance of students' rights to express themselves in their preferred language without the fear of being marginalized.

Authority

The theme of authority in the classroom focuses on who holds power and how it is exercised. Traditionally, teachers wield significant influence in shaping the classroom atmosphere and establishing language protocols. An examination of the data indicates that teachers commonly prioritize English, the dominant language, which leads to students who are fluent in indigenous languages feeling marginalized.

> *When my teacher speaks Twi to me in class and I respond in Twi, he will say that you are a student, so speak English. We are not the same and insults me*. (SBS4)

A student in school C added:

> *I tried to ask a question the other time, and the madam told me to sit down. She said I should not use Twi in the classroom again, and she also said wo bƐte ta ƐwƆ w'asum, wo bƐwai no na ƐyƐ me nsa [literally, you will hear a sound in your ear, and when you remove it, you'll find that it's my hand]*. (SCS3)

A first-year student said

> *The other day, I was answering a question, but the English was not coming. So, I said to the teacher, ' Sir, please, can I speak Twi?'. He said, "My friend, sit down, sit down. The next time you speak Twi in my class, I will walk you out".* (SAS5)

Another second-year student in school C confirmed

> *Last time, my teacher said something to me in class, but I didn't hear it. I asked him in Twi what he said. Then, he got angry and said, "I am speaking English and you're speaking Twi to me, you don't respect, eh?"*. (SCS4)

These excerpts reveal the power imbalances present in the language classroom, where teachers wield their authority to enforce English as the dominant language, thereby marginalizing students who speak indigenous languages. By prioritizing English, teachers not only control classroom participation but also signal which forms of linguistic expression are deemed socially acceptable, reinforcing existing hierarchies of language. This suppression of students' preferred languages restricts their ability to communicate effectively, engage fully, and assert their linguistic rights. Such practices reflect broader systemic pressures, including national language policies and societal valorization of English, positioning teachers as enforcers of these norms. Consequently, authority in the classroom becomes a mechanism through which students' linguistic identities are constrained and their rights curtailed.

Positionality

The theme of positionality refers to the placement of educators within larger societal constructs that establish norms and expectations (Maher & Tetreault, 1994). The roles adopted by teachers within the education system significantly influence their attitudes towards linguistic rights. The data indicate situations wherein educators adhere to predominant language standards as dictated by educational policies, thereby marginalizing students who speak non-dominant languages.

A teacher in school A indicated that

> *... when I see the headmaster or any of my superiors, at that moment, no matter who you are, I will never allow you to express yourself using your preferred language.* (SAT1)

He further added,

> *These [language] policies do not tell me what to do to help the child; rather, I am to strictly base on what the policy demands as an English language teacher.* (SAT1)

Another teacher confirmed the statement

> *... you [language teacher] are to speak the language so that your students will emulate you. As an English language teacher, you can't encourage other languages. What will people say about you?* (SBT2)

A teacher in school A also shared his view

> *How will it look like when I have written English [a subject] on the board and I am speaking Twi in class? Imagine the headmaster, a colleague teacher, or anybody from the Education office passing by and noticing it. What will they think of me?* (SAT2)

The accounts illustrate how teachers' adherence to institutional norms reinforces the dominance of English while marginalizing students' preferred languages. Their position within the school hierarchy, subject to the scrutiny of superiors, colleagues, and education officials, contributes to their stringent enforcement of English, often at the cost of students' linguistic rights. This indicates that teachers are not merely individual enforcers of language policies; rather, they are embedded in systemic structures that perpetuate language hierarchies. As a result, students' use of indigenous languages is restricted not only by classroom authority but also by broader institutional expectations. These findings underscore how the interplay between teacher positionality and policy pressures perpetuates unequal power dynamics, thereby limiting students' agency and participation in the classroom.

The discussion so far reveals a consistent pattern across mastery, voice, authority, and positionality: students' linguistic rights are often suppressed due to power dynamics within the classroom, which privilege English while marginalizing indigenous languages. These dynamics impact comprehension, participation, confidence, and identity, demonstrating how classroom practices can reinforce broader societal hierarchies in language use. Integrating LHR theory, the findings underscore that such practices violate students' rights to use their preferred language in educational settings, leading to negative consequences for both learning outcomes and socio-emotional well-being.

Policy Implications

The findings of this study underscore the pressing need for policy reforms that acknowledge linguistic diversity as fundamental to fostering equitable teaching and learning in senior high schools in Ghana. Firstly, the Ministry of Education and the Ghana Education Service (GES) should clearly define the role of indigenous languages within secondary education to prevent the misinterpretation of language-in-education policies as mandates for English-only classroom practices. Establishing explicit guidelines that authorize the structured use of Ghanaian languages, especially for explanations, scaffolding, and assessment support, would help alleviate the exclusionary effects faced by students. Secondly, teacher education programs should include modules on linguistic rights, sociolinguistic equity, and translanguaging pedagogies to better prepare teachers for managing multilingual classrooms without resorting to punitive enforcement of English. Such training would help alter teachers' perceptions that utilizing indigenous languages signifies a lack of professionalism or diminished authority. Thirdly, Institutional practices that penalize students for speaking their preferred languages should be reassessed and replaced with supportive, culturally responsive approaches. Finally, policy monitoring and supervision should prioritize inclusive language practices instead of strict adherence to narrow interpretations of English-only norms. This would help ensure that school culture aligns with national commitments to equity, access, and the linguistic rights of students.

Conclusion

This study explored how language choices and power dynamics within senior high school classrooms influence students' ability to assert their linguistic rights. The findings reveal that teachers, whether deliberately or inadvertently, serve as gatekeepers of the English-only ideology, frequently enforcing policies that restrict students from using their preferred languages. Such practices can lead to emotional distress, silence students, and undermine their participation and learning experiences. Power dynamics related to mastery, voice, authority, and positionality further marginalize students who either lack

proficiency in English or rely on indigenous languages for understanding. The study concludes that power-laden language practices negatively affect students' academic engagement and their capacity to exercise their linguistic rights. Future research could expand on these insights by investigating how linguistic rights function across various regions of Ghana to identify whether similar power dynamics arise in different sociolinguistic contexts. Furthermore, comparative studies across other multilingual African countries could illuminate both common challenges and context-specific solutions.

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Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Conflicts of Interest

The authors declare no conflict of interest.

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Appendix A

Interview Guide for Students

1. **Challenges and Barriers:**
    - What language do you use most often in your classes? How does this affect you?
    - Can you describe any situations where you felt unable to use your preferred language in school?
    - What are some difficulties you face when trying to use your preferred language in school? Can you share specific examples?
    - How do your classmates react when you use your preferred language?
    - How do your teachers respond when you use your preferred language in class or school activities?
    - Are there any school rules about which languages you can use? How do these rules affect you?
    - Have you ever been discouraged from using your preferred language? If so, how?
2. **Power Dynamics**:
    - How do teachers generally respond when students use languages other than the one used for instruction?
    - Can you give an example of a time when a teacher's response to language use made you feel either supported or discouraged?
    - How do you think the rules or expectations about language use affect your ability to participate in class?
    - Do you think all students are treated equally when it comes to using their preferred languages? Why or why not?
    - In what ways do interactions with teachers influence your confidence in using your preferred language?

Appendix B

Interview Guide for Teachers

1. **Challenges and Barriers for Students**:
    - What has been your experience with students using languages other than the primary language of instruction?
    - What challenges do you observe students facing when they use their preferred languages in school?
    - How do you typically respond when students use their preferred languages in class?
    - Are there any formal or informal school policies on language use that you are aware of? How do they impact students?
    - How do you think these policies and practices influence students' ability to exercise their linguistic rights?

2. **Power Dynamics**:
    - How do you view your role in managing language use within the classroom?
    - Can you provide examples of situations where language use led to either a positive or negative classroom environment?
    - How do you manage the balance between maintaining instructional language and supporting students' linguistic preferences?
    - Do you perceive any inequalities among students regarding their ability to use their preferred languages? Why or why not?
    - Do you think some students feel more empowered to use their preferred language than others? Why or why not?
    - How do you address any power imbalances that arise from language use in your classroom?

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Autobiographical Reflective Writing in Higher Education: Framing Intercultural Awareness and Civic Consciousness

ABSTRACT

Autobiographical reflective writing is a powerful yet underexplored pedagogical and diagnostic tool in higher education. This study examines writing functions as a medium for evidencing and potentially supporting intercultural awareness and civic consciousness among Georgian university students. Drawing on 122 autobiographical sketches produced between 2009 and 2024 across four universities, the analysis compares reflective patterns across three instructional phases using thematic coding and rubric-based assessment (Braun & Clarke, 2006). Grounded in theories of transformative learning, intercultural development, and civic learning, the study shows that autobiographical writing reliably elicits empathy, cultural awareness, and reflexive engagement, while revealing persistent challenges in translating insight into inclusive or civic practice. Later cohorts demonstrate stronger narrative coherence, theoretical integration, and reflexive depth, whereas the articulation of concrete inclusive action remains uneven. These patterns reflect differences in pedagogical design, including prompts, scaffolding, and feedback, rather than individual developmental progression. The study concludes that systematically scaffolded autobiographical writing offers higher education a sustainable means of evidencing reflective depth, identifying the awareness–action gap, and embedding intercultural and civic learning outcomes within programme-level quality assurance. Conceptually, it integrates reflective pedagogy, intercultural development, and civic learning into a design-sensitive framework; methodologically, it demonstrates a transferable combination of rubric-based assessment, thematic coding, and narrative citation; and practically, it outlines principles for designing prompts, rubrics, and feedback that transform reflective writing from a private exercise into a structured social practice with demonstrable outcomes.

Keywords: *Reflective writing; Autobiographical sketch; Multicultural awareness; Civic Consciousness; Higher education; Transformative learning; Inclusive pedagogy; Awareness-Action gap*

Introduction

Universities require students to demonstrate knowledge and define who they are becoming in an increasingly diverse society. Yet competences essential for this - intercultural understanding, moral reasoning, and civic consciousness are difficult to cultivate through conventional, content-heavy instruction. This paper examines students' autobiographical sketches, extending to the reflective

reading by the instructors, a common instructional yet seldom theorised practice. Here, the autobiographical sketch is treated as a reflective cycle and positioned as a pedagogical tool that surfaces lived experiences, renders moments of cultural encounter and tension visible, and translates insights into dispositions for civic and intercultural action.

The study explores how autobiographical reflective writing operates in higher education to challenge assumptions, expand perspective-taking, and convert personal reflection into civic dispositions. Rather than viewing reflective writing as a purely expressive exercise, it examines how students construct their narratives, what instructional scaffolds support this engagement, and how evidence of change can be captured through transparent criteria and rubrics.

The primary research question is: How does autobiographical reflective writing function as a pedagogical mechanism for evidencing and supporting intercultural awareness and civic consciousness under different instructional design conditions in Georgian higher education?? This question is followed by three interconnected objectives:

1. Critically examine assumptions in reflective assignments and identify design features. prompts, facilitation, and feedback that support transformation rather than self-report.
2. Identify indicators of reflective depth and intercultural positioning in perspective-taking, empathy, and comfort with ambiguity.
3. Describe how moral reasoning and civic engagement cues consolidate into civic consciousness as an integrated triad of knowledge, skills, and dispositions.

The study makes interlocking contributions: conceptually, it integrates reflective pedagogy, intercultural development, and civic learning; methodologically, it offers an adjuastable assignment architecture with prompts, facilitation moves, and evidence-focused rubrics; and practically, it provides design guidance for instructors and QA stakeholders to use reflective writing as structured social practice with demonstrable outcomes. By centring the assignment, the paper reframes reflective writing from a private exercise to a pedagogical mechanism aligned with broader curricular and societal aims.

Literature Review

Intercultural sensitivity in higher education: developmental trajectories and assessment instruments

Intercultural sensitivity is widely viewed as a developmental process rather than a fixed trait. Bennett's Developmental Model of Intercultural Sensitivity (DMIS) remains foundational, describing progression from ethnocentric orientations (denial, defence, minimisation) to ethnorelative positions (acceptance, adaptation, integration) (Bennett, 1986, 1993, 2013). Deardorff's process model similarly

frames intercultural competence as an iterative cycle of attitudes, knowledge, skills, and outcomes developed through interaction and reflection (Deardorff, 2006).

King and Baxter Magolda's intercultural maturity framework adapts these ideas to higher education, integrating cognitive, intrapersonal, and interpersonal dimensions. It argues that students gradually learn to hold multiple cultural perspectives, define identity in relation to difference, and interact constructively across boundaries (King & Baxter Magolda, 2005; Pérez et al., 2015). Within this tradition, intercultural sensitivity extends beyond awareness of "the other", revises individual meaning schemes and creates the capacity to act accordingly.

Empirical research offers diverse assessment instruments, mixing surveys and scenario tests with performance tasks and reflective assignments. Increasingly, narrative and reflective methods are recognised for their capacity to capture how students interpret diversity in context and over time. Classic work on critical incidents exhibits narrating disorienting episodes exposing meaning-making processes (Flanagan, 1954; Brookfield, 1995; Tripp, 2011). Kember et al.'s (2008) four-level reflection scheme, habitual action, understanding, reflection, and critical reflection, provides operational criteria for depth of reflection while intercultural frameworks such as DMIS and intercultural maturity are often applied to interpret reflective texts as indicators of developmental movement (Bennett, 1986; Bhawuk & Brislin, 1992; Fantini, 2016; King & Baxter Magolda, 2005).

These approaches position reflective writing, critical-incident analysis, and rubric-based evaluation as powerful tools for making intercultural development visible. Yet most studies remain cross-sectional, capturing students' positioning at a single point rather than tracing longitudinal change. Few examine how assignment design prompts, scaffolds, and feedback shape developmental trajectories.

Georgian higher education context and diversity in higher education

Since joining the Bologna Process and the European Higher Education Area (EHEA) in 2005, Georgia has integrated European structures and standards into tertiary education (European Higher Education Area, n.d.). Over two decades, reforms introduced a three-cycle degree structure, ECTS, a national qualifications framework (NQF), and learning outcomes across programmes (Amashukeli, Lezhava & Chitishvili, 2020; Papiashvili, 2024). The revised NQF (2019) codifies levels 6-8 and aligns with EQF/QF-EHEA, reinforcing outcomes-based learning and sector permeability (ETF, 2020). At the same time, external quality assurance has consolidated: ENQA's review confirmed substantial compliance with ESG standards, while EQAR registration reflected alignment with European QA frameworks (ENQA, 2019; NCEQE, 2021; EQAR, 2024). Internationalisation has expanded through Erasmus+, US-supported mobility, English-medium programmes, and partnerships, increasing the number of international students from 9,352 to 37,100 between 2017– 2018 and 2024–2025 (Geostat,

2025). Diversity drivers include visibility, QA convergence, and employability, while constraints involve funding, staffing, and uneven capacity. Attraction and retention hinge on advising, housing, language support, and campus integration (Eurydice/EACEA, 2020; Beelen & Jones, 2015). These dynamics demand inclusive course design and pedagogy (Campbell, 2009; ESG, 2015).

Even inclusive design and pedagogy call for systematic identification of gaps and needs, in Georgia, intercultural and diversity-related research has historically focused mainly on practising teachers and teacher education. Yet, studies of in-service and pre-service teachers reveal strong declarative commitments to fairness and inclusion, but variable levels of intercultural sensitivity and limited translation of values into practice (Tabatadze, 2015; Tabatadze & Gorgadze, 2018). These findings underscore systemic challenges in preparing educators for multilingual, multiethnic, and religiously diverse classrooms.

More recent work has turned to university students themselves. Studies of intercultural maturity among Georgian university students show a pattern that parallels international research: students often express openness towards "difference," yet their responses tend to rely on academically "correct" formulations rather than deep self-interrogation or willingness to question their own assumptions (CCIIR, 2020; Tabatadze & Gorgadze, 2025[1]).

In other words, cognitive endorsement of diversity does not necessarily signal developmental growth. Despite structural reforms, research largely focuses on teachers' attitudes and preparedness (Tabatadze & Gorgadze, 2013; Chanturia, 2023), offering limited insight into students' intercultural maturity or how pedagogy shapes it. Existing studies show students endorse diversity cognitively but rarely interrogate assumptions deeply (CCIIR, 2020; Tabatadze & Gorgadze, 2025). With Georgian HE that is committed to student-centred learning and transversal skills (ESG, 2015; Eurydice/EACEA, 2020), reflective and narrative-based assessments, such as autobiographical sketches, are emerging as tools for evidencing learning outcomes, yet remaining under-theorised. This study addresses that gap by examining autobiographical reflective writing as both assessment and pedagogy, exploring what sketches reveal about intercultural sensitivity and how design and feedback shape development over 15 years.

Approaches to developing intercultural sensitivity in higher education

If intercultural sensitivity is developmental, pedagogy, not policy language alone, must create conditions for growth. The literature highlights three interlocking domains: reflective and transformative learning; interactional diversity and civic learning; and feedback as the mechanism linking reflective insight to behavioural change (Formenti & Hoggan-Kloubert, 2023; Taylor, 2017).

[1] The cited paper offers a conceptual framework and analysis of implementation factors for reflective writing, separate from the empirical data (122 student sketches) and analysis shown in the current study.

Reflective and transformative learning

Reflective learning theories frame reflection as a structured process that connects experience, interpretation, and forward action (Boud, Keogh, & Walker, 1985; Gibbs, 1988; Moon, 2006). Rather than free-form introspection, these models emphasise purposeful prompts, guided questioning, and cycles of revisiting experience.

Transformative learning theory foregrounds critical reflection on disorienting dilemmas as the engine of perspective transformation (Mezirow, 2000). Questioning assumptions enables learners to reconstruct frames of reference and revise behaviour. Empirical studies show structured reflective writing enhances critical thinking, creativity, and analytical skills (Bubnys & Žydžiūnaitė, 2010; Jasper, 2005).

Recent higher education research links these processes to intercultural and civic outcomes. Service-learning and community-engagement studies demonstrate that structured reflection through prompts, discussion, and assessment supports sustained changes in perspective and civic orientation (Schank & Halberstadt, 2023). Experimental designs confirm that transformative-learning debriefings improve problem solving, critical thinking, and professional judgement beyond standard debriefings (Oh et al., 2021). Within this tradition, autobiographical reflective writing is especially potent. Narrating educational and social trajectories surfaces positionality, implicit beliefs, and "contact zones" where difference becomes salient (Pratt, 1991; King & Baxter Magolda, 2005). Assignments inviting accounts of encounters with language, ethnicity, disability, religion, or migration provide rich material for mapping reflections onto intercultural-development models (DMIS, ICC, ICSI) and tracking movement from awareness to action (Bennett, 1986; Bhawuk & Brislin, 1992; Fantini, 2016; ESG, 2015).

Interactional diversity and civic learning

Intercultural development does not occur through reflective writing alone. Research shows that interactional diversity, the quantity, quality, and structure of interactions with diverse peers, is a key driver of growth. Large-scale and longitudinal studies confirm that structured engagement enhances

cognitive complexity, pluralistic orientation, and civic readiness (Gurin, Dey, Hurtado, & Gurin, 2002; Denson & Chang, 2009; Bowman, 2010; Hurtado et al., 2012). Dialogue-based courses and diversity-focused curricula correlate with gains in perspective-taking, democratic engagement, and collaboration across differences (Hurtado, 2007; Engberg & Hurtado, 2011). European scholarship stresses that "internationalisation at home", curricular initiatives, classroom dialogue, and co-curricular activities are often more consequential for intercultural competence than mobility alone (Beelen & Jones, 2015; UUKi, 2021). From this perspective, reflective assignments such as autobiographical sketches work best when embedded in a broader ecology of interactional diversity and civic opportunities. Reflection then becomes a site where students interpret experiences with difference, connect them to values and theoretical frameworks, and consider implications for future action.

Feedback as a mechanism that converts reflection into behavioural change

Feedback research shows that information alone does not guarantee learning; design, interpretation, and use matter. Hattie and Timperley (2007) conceptualise effective feedback at three levels - task, process, and self-regulation, arguing that it should answer "How did I do?" and "Where to next?" questions. Meta-analyses confirm iterative, information-rich feedback produces stronger learning gains than grades or evaluative comments (Butler, 1987; Shute, 2008; Evans, 2013; van der Kleij et al., 2015; Wisniewski et al., 2020).

Contemporary theory extends this to a dialogic view: feedback is a process where students develop feedback literacy, the ability to interpret, evaluate, and act on information (Boud & Molloy, 2013; Carless & Boud, 2018; Winstone & Carless, 2019). Revision, discussion, and feed-forward guidance are integral to effective pedagogy, not optional extras.

In autobiographical reflective writing with intercultural aims, feedback plays a distinctive role. When instructors link comments to developmental frameworks, such as indicating where a narrative sits along DMIS stages or intercultural-maturity dimensions, students better understand their positioning and growth goals (King & Baxter Magolda, 2005; Pérez et al., 2015; Deardorff, 2006). Rubrics with clear criteria for narrative coherence, reflexivity, intercultural understanding, and inclusive action provide shared reference points for students and teachers (Kember et al., 2008; Nicol & Macfarlane- Dick, 2006; Ryan, 2012; Ash & Clayton, 2009).

Crucially, feedback converts reflective insight into behavioural change. Without feedback on naming developmental levels, challenging assumptions, and demanding evidence of practice, reflective tasks risk remaining expressive self-reports. With dialogic, iterative feedback and resubmission opportunities, assignments become structured developmental cycles that move students from awareness and empathy toward inclusive action.

Synthesis and implications for the present study

Taken together, the literature points to several gaps that the current study addresses. First, while developmental models of intercultural sensitivity and maturity are well-established, fewer studies have used autobiographical reflective writing as a longitudinal indicator of intercultural and civic development in higher education, particularly in post-Soviet systems undergoing Europeanisation. Second, existing research often treats reflective assignments as given, paying limited attention to how specific design features - prompts, scaffolds, interactional context, and especially feedback that define whether reflection leads to transformation or remains self-descriptive.

By analysing 122 autobiographical sketches produced over 15 years in Georgian universities, combining reflective pedagogy, intercultural development, and civic learning, this study responds directly to these gaps. It treats the autobiographical sketch not only as coded data but as a designed reflective cycle whose transformative potential depends on how students are prompted, guided, and given feedback. This synthesis sets the stage for Objective 1: to critically examine assumptions embedded in reflective assignments and identify design features that plausibly support movement from awareness toward inclusive, enacted practice in higher education.

Methodology

This study integrates three strands - reflective pedagogy, intercultural development, and civic learning- to examine how autobiographical sketching supports students' progression from awareness to inclusive, enacted practice in diverse Georgian higher education settings. Although data come from four universities, the analysis does not compare institutions; instead, it traces temporal evolution across three collection periods (2009–2010; 2015; 2022–2024 to show how reflective patterns differed across phases alongside system reforms, pedagogical changes, and growing internationalisation.

Positionality and Potential Bias

A critical methodological consideration requires explicit disclosure: the two researchers who conducted the coding and rubric scoring are also the instructors who designed and facilitated the autobiographical sketch assignments across the four institutions during the study period. This dual role introduces potential confirmation bias, as familiarity with students' work and investment in pedagogical outcomes could influence interpretation. We acknowledge this limitation transparently and took the following steps to mitigate bias: (a) all sketches were fully anonymized prior to analysis, with institutional and temporal identifiers coded separately; (b) a substantial time lag (minimum 6 months, often several years) separated instruction from analysis, reducing recall of individual students; (c) the coding scheme and rubric were developed iteratively through close reading of texts rather than

imposed a priori, grounding categories in students' actual language; (d) inter-rater reliability was established through independent parallel coding of a pilot subset (10-15%) with systematic reconciliation of discrepancies; and (e) we prioritized behavioural evidence and concrete practices over aspirational statements to minimize interpretive generosity. While these steps reduce bias, we recognise that complete objectivity is unattainable when analysing one's own pedagogical artefacts. This trade-off was accepted because the instructors' deep contextual knowledge of assignment conditions, institutional cultures, and Georgian higher education dynamics provided interpretive resources unavailable to external coders. Readers should interpret findings with this positionality in mind.

Autobiographical Sketch as Pedagogical Assignment

The autobiographical sketch is conceptualised as a designed reflective cycle rather than a free-form narrative. Across institutions, instructors (also authors of this manuscript) used comparable prompts grounded in reflective pedagogy and developmental frameworks of interculturalism. The pedagogical purposes were to: (a) Render positionality visible (Holmes, 2020; Takacs, 2003); (b) Surface encounters with contact zones shaped by language, ethnicity, belief, disability, or migration (Pratt, 1991); (c) Link personal experience with inclusive instructional choices; (d) Evidence intercultural awareness and civic orientation.

Assignment design aligns with “backward-design” logic and evidence strategies (Fink, 2013; Wiggins & McTighe, 2005), supporting reflective depth and developmental analysis.

Data Corpus and Temporal Grouping

The dataset comprises 122 anonymised autobiographical sketches across three phases: Phase 1 (2009-2010): first-generation reflective assignments in new pedagogical modules; Phase 2 (2015): tasks embedded in diversity- and policy-related coursework; Phase 3 (2022–2024): mature reflective pedagogy integrated into postgraduate and doctoral programmes in education, public administration, and related social sciences. Sketches originate from four universities (East Europe University (EEU), Ilia State University (IliaUni), Georgian Institute for Public Affairs (GIPA), Tbilisi State University (TSU)), with institutional identity treated as contextual metadata rather than an analytic axis. The primary unit of analysis is the individual sketch, whereas the main comparison is across temporal phases. Distribution: Phase 1 (N = 25), Phase 2 (N = 12), Phase 3 (N = 85). This cross-sectional temporal design compares cohorts at different time points rather than tracking individual students over time. Observed differences may reflect both pedagogical evolution and cohort-specific characteristics (e.g., program level, student demographics). Across all periods, the assignment retained a consistent structure (autobiographical prompt, diversity focus, feedback on reflective quality). Phase 3 yields the largest corpus due to wider uptake of structured reflective pedagogy and expanded diversity-focused

teaching. In total, 637 quotations were extracted and coded, forming the basis for qualitative interpretation and descriptive quantitative aggregation. Accordingly, phase differences are interpreted as comparative patterns shaped by cohort characteristics and pedagogical design (prompts, rubrics, feedback), rather than as evidence of individual developmental progression.

Analytic Framework: Three Strands Integrated into Codes and Rubric

The analytical framework integrates three established strands - reflective pedagogy, intercultural development, and civic/inclusive learning- into a single evaluative model for examining longitudinal changes in students' reflective capacity. This consolidation is necessary because autobiographical sketches are hybrid artefacts: part personal narrative, part reflective cycle, part documentation of intercultural positioning, and part civic/intended practice. No existing model captures all these dimensions; hence, an integrated frame is required.

The conceptual framework maps onto both a thematic coding scheme (8 codes) and a reflective rubric (5 criteria).

Reflective Pedagogy Strand

Drawing on experiential and transformative learning theories (Kolb, 1984; Mezirow, 2000; Moon, 2006; Brookfield, 2017), reflection is understood as a structured process encompassing engagement with experience, examination of assumptions, meaning-making, and orientation toward future action. This strand operationalises reflective depth through Narrative Coherence, Reflexivity, and Critical Incident analysis, indicators widely recognised in reflective learning models and suitable for cross-period comparison.

Intercultural Development Strand

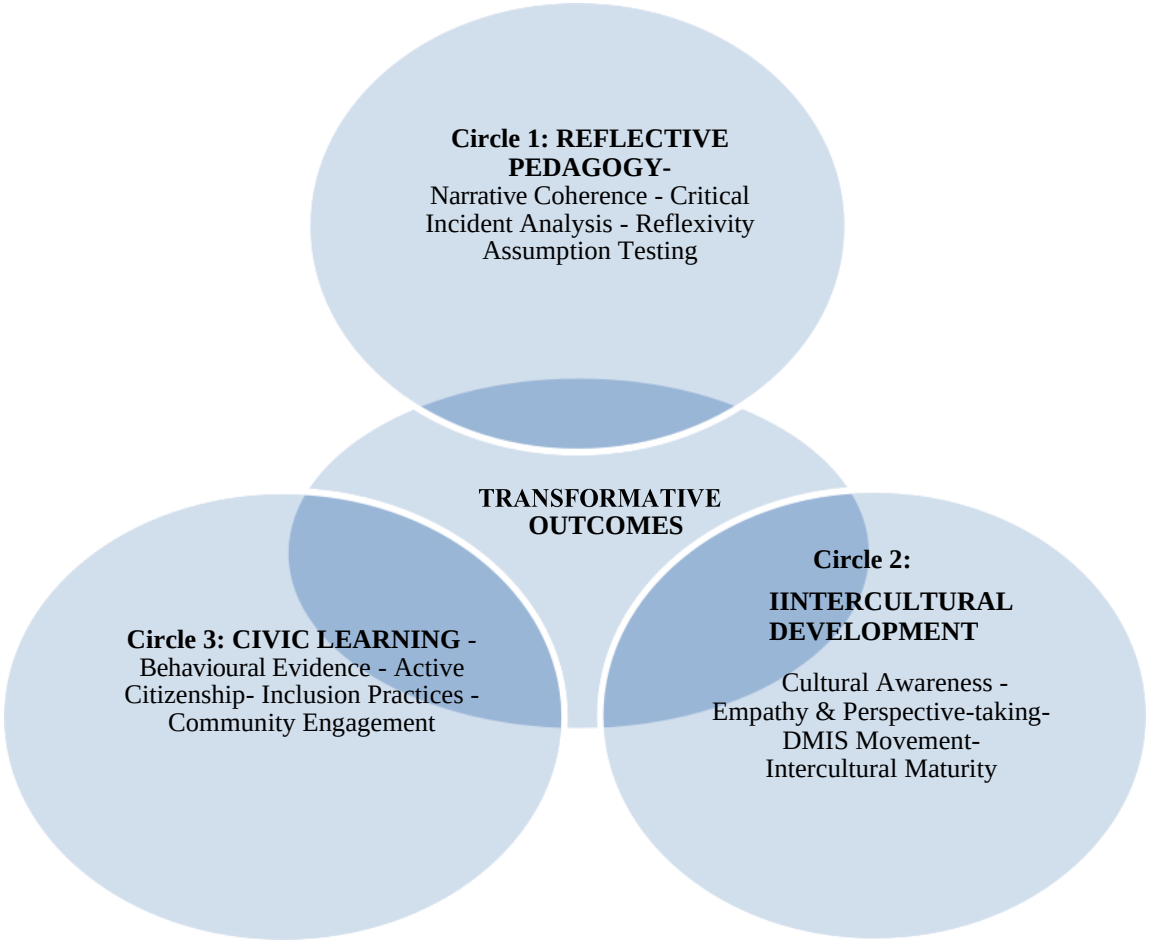
Informed by intercultural development and competence frameworks (Bennett, 1986–2013; Deardorff, 2006; King & Baxter Magolda, 2005), this strand examines students' capacity to interpret difference beyond stereotypes, demonstrate perspective-taking, and position themselves reflexively within intercultural encounters. It integrates core elements of DMIS progression, intercultural maturity, and process-oriented competence models linking attitudes, knowledge, skills, and behaviour.

Civic Learning Strand

Grounded in civic and inclusive learning research (Gurin et al., 2002; Hurtado, 2007; Bowman, 2010), this strand emphasises the necessity of translating intercultural understanding into practice. Prior studies highlight behavioural enactment through interactional diversity, democratic engagement, and equity-oriented action (Campbell, 2009; Mitra & Serriere, 2012; Chittum et al., 2022). Inclusive Action is assessed as the clarity and feasibility of intended or enacted behaviour in educational or civic

contexts (Ash & Clayton, 2009), enabling distinction between expressed awareness and actionable commitment.

Figure 1: Integrated Analytical Framework



Development of the Integrated Model

The analytical framework applied in this study was developed through iterative cycling between data patterns and established theoretical frameworks (an abductive process), emerging from recurring patterns in the data and the structural logic of the autobiographical assignment. This process yielded a hybrid, adap

table model suitable for cross-temporal comparison of autobiographical sketches.

The model guided a dual analytic strategy: (1) An eight-code thematic scheme capturing reflective depth, intercultural stance, and civic translation as presented in the table 1:

Table 1. Eight-code thematic scheme inductively developed from research data

Reflective Structure
1. Narrative Sequencing & Coherence
2. Critical Incident Articulation
3. Assumption-Testing & Emotional Interpretation

Intercultural Positioning
4. References to Cultural/Linguistic Difference
5. Statements of Positionality
6. Indicators of Developmental Movement (e.g., evidence of shifting interpretations of difference)

Civic/Inclusive Orientation
7. Planned Inclusive Actions
8. Links to Instructional/Civic Behaviour

(2) A five-criterion rubric assessing narrative coherence, reflexivity, critical incident analysis, intercultural understanding, and inclusive action.

Table 2. Five rubric criteria that correspond directly to the three conceptual strands.

Conceptual Strand	Rubric Criterion (0–5 scale)	Rationale
Reflective Pedagogy	1. Narrative Coherence	Structure, clarity, and purposeful arc of the sketch (reflective pedagogy strand).
	2. Reflexivity	Degree to which assumptions and positionality are interrogated and evidence of growth is documented (reflective pedagogy strand).
Reflective pedagogy + Intercultural Development	3. Critical Incident	Presence and handling of a specific, consequential episode tied to diversity or justice, including articulated implications (reflective pedagogy + intercultural development).
Intercultural Development	4. Intercultural Understanding	Depth of cultural analysis with situated empathy (merging Cultural Awareness and Empathy & Feelings; intercultural development strand).
Civic Learning	5. Inclusive Action	Concrete, current, or credible planned practices (inside classrooms or in wider civic arenas) that demonstrate translation of insight into behaviour (civic learning strand)

Inclusive Action captures both pedagogical and civic enactment, while the Active Citizenship code isolates explicit engagement beyond immediate instructional roles.

Rubric anchors were iteratively calibrated using exemplar sketches from each period. The scale is intentionally simple enough for longitudinal consistency, yet sensitive enough to capture variation, particularly on depth (Critical Incident, Reflexivity) and enactment (Inclusive Action). This structure aligns with validated reflection frameworks and assessment guidance (e.g., Kember et al., 2008; Ryan, 2012; American Association of Colleges and Universities, 2009a, 2009b; Nicol & Macfarlane-Dick, 2006).

Codebook (quotation-level thematic coding)

At the quotation level, an eight-code scheme that captures stance, affect, criticality, and action was applied. This scheme is directly aligned with the three strands:

- CA – Cultural Awareness: identifies or contextualises difference (ethnic/linguistic/religious); situates self/others with specificity.
- EF – Empathy & Feelings: expresses emotions and perspective-taking; moral sensitivity toward "the other".
- CI – Critical Incident: narrates consequential encounter or dilemma tied to diversity/justice.
- BE – Behavioural Evidence: concrete inclusive moves (grouping norms, language scaffolds, differentiation, conflict mediation).
- RE – Reflexivity: self-interrogation of assumptions/positionality; reframing and meaning-making.
- RB – Recognised Bias: ownership of past bias or community stereotyping; reports of change.
- AC – Active Citizenship: civic engagement or advocacy (peer mentoring, petitions, policy critique, community projects).
- IN – Inclusion Practices: day-to-day routines that foster belonging, access, or fairness.

Each quotation could receive multiple codes (multi-label coding). Codes were operationalised with decision rules and exemplars in the project framework, enabling consistent application across the 637 quotations and supporting descriptive aggregation at the level of phases and cohorts (with institutional breakdowns used only to contextualise patterns, not as the primary focus of interpretation. Behavioural Evidence captures immediate, situated practices; Inclusion Practices refer to routinised pedagogical strategies; Active Citizenship denotes engagement beyond institutional roles.

Coding and analysis procedures

The analytic strategy combined qualitative structural/thematic analysis with descriptive quantitative summarisation of rubric scores and code frequencies. Procedures unfolded in four steps:

Step 1 - Familiarisation and protocol: Researchers reviewed the conceptual framework, rubric anchors, and codebook, jointly clarifying code boundaries and criterion definitions. A shared workbook and narrative logs were used to document evolving decisions and to maintain transparency in how borderline cases (e.g., RE vs RB, BE vs IN) were handled.

Step 2 - Pilot coding and calibration: Two analysts (the same as the instructors who assigned the sketches) independently coded and scored a pilot subset (approximately 10–15% of cases) spanning all three phases and a range of sensitivity levels. They compared results, discussed discrepancies, and refined decision rules until reaching a stable consensus. Inter-rater agreement was calculated using per

cent agreement for rubric scoring (mean = 87%, range 82-94% across criteria) and Cohen's kappa for binary code presence ($\kappa = 0.79$, substantial agreement; Landis & Koch, 1977). Discrepancies were resolved through discussion until consensus was reached. Following recommendations for qualitative reliability in developmental construct coding, the emphasis was placed on conceptual agreement rather than on coefficients alone (Campbell et al., 2013; O'Connor & Joffe, 2020).

Step 3 - Full coding and scoring: In the main phase, all 122 sketches were: 1. Read holistically as case narratives; 2. Assigned rubric scores (1–5) for each of the five criteria, and 3. Coded at the quotation level using the eight thematic codes (CA, EF, CI, BE, RE, RB, AC, IN). Periodic cross-checks and reconciliation meetings ensured continued alignment. Outputs included: Per-case sheets (metadata, rubric scores, codes, illustrative excerpts); Phase-level tables, summarising average rubric scores and code frequencies by collection period; and Descriptive cohort summaries that occasionally disaggregate by institution to contextualise variation (e.g., differing prevalence of BE/IN), while the main interpretive emphasis remains on temporal and developmental patterns.

Quantitative outputs, including mean rubric scores, presence/absence of codes, and correlations between criteria, were used to characterise typical profiles of sketches in each phase as well as to examine the awareness–action gap (e.g., comparing awareness-related indices to BE/IN as enactment indicators), and to construct composite indices such as an Actionability Index. The Actionability Index was constructed using equal weighting based on the theoretical premise that enacted inclusion requires convergence of three elements: critical self-examination (RE), analysis of consequential diversity-related experience (CI), and articulation of concrete behavioural responses (BE). While alternative weighting schemes are possible, equal weighting treats these dimensions as necessary and complementary rather than hierarchical, reflecting the premise that all three must converge for enacted inclusion to occur. These analytic layers make visible where reflective engagement is most strongly evidenced (e.g., awareness and affect) and where pedagogical design, including feedback, requires further strengthening (e.g., behavioural translation). The index is used as a descriptive heuristic (not a validated scale) to make the 'awareness-to-enactment' pattern legible.

Step 4 - Narrative citation analysis: Finally, coded quotations were assembled into theme-based citation sets such as interethnic contact and friendship, teacher bias and unequal treatment, language and accent, inclusion practices, etc., and interpreted qualitatively to provide rich, context-sensitive evidence for claims about intercultural and civic development. Representative quotations are referenced in the findings through anonymised labels (e.g., EEU_01, GIPA_05), with language of origin retained where possible to preserve voice; translations are used selectively for clarity.

Unless otherwise specified, percentages refer to sketch-level presence (≥1 coded passage in a sketch). Where quotation-level distributions are reported (e.g., across the 637 extracted quotations), these are labelled explicitly as % of quotation.

Ethical Considerations

All sketches were originally produced as course assignments and were fully anonymised for this study; personal identifiers were removed, and institutional names were retained only in aggregate form. Participation was complete at the cohort level, as all available submissions within target programs were included, minimising selection bias. Prior to submission, students were notified that anonymised coursework may be used for pedagogical research. All assignments were fully de-identified prior to analysis, and no identifying information is reported. Feedback practices across courses followed common principles, developmental comments linked to rubric criteria and encouragement of revision, though the intensity of feedback cycles (e.g., resubmission requirements) varied by cohort and course. These variations were treated descriptively to interpret phase-level patterns in reflective depth and behavioural evidence.

Given discrepancies in instructions, institutional contexts, program types, and time frames, limitations were acknowledged: Uneven length and detail across sketches; Potential recall and social-desirability effects inherent in autobiographical writing; Imbalanced case numbers across phases and institutions (Phase 3 overrepresented).

Mitigation strategies included: Focusing interpretation on patterns consistent across multiple cases and phases; Prioritising behavioural evidence (BE/IN) and civic indicators (AC) where possible; Triangulating rubric scores, thematic codes, and narrative citations.

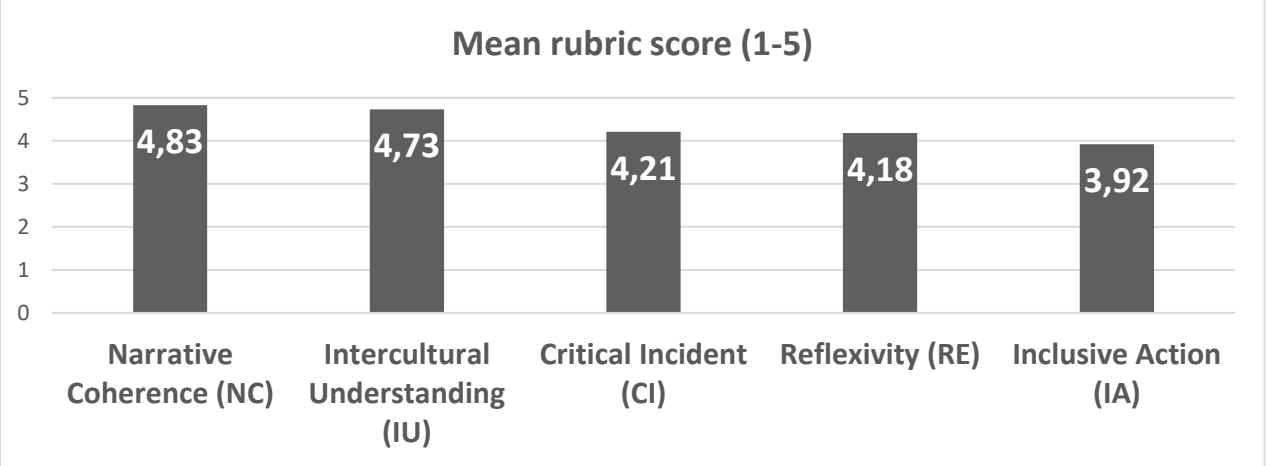
Research Results

As outlined in the methodology, the dataset comprises 122 autobiographical sketches produced over 15 years. The assignments cluster into three phases that roughly mirror the diffusion of reflective pedagogy and diversity-oriented teaching in Georgian higher education. This distinguishes between themes that appear repeatedly in a few papers versus those that are common across the entire student cohort. The assignments cluster into three phases that roughly mirror the diffusion of reflective pedagogy and diversity-oriented teaching in Georgian higher education. All 122 sketches were scored against five rubric criteria aligned with the three conceptual strands, namely, Narrative Coherence, Intercultural Understanding, Critical Incident, Reflexivity, and Inclusive Action. Students generally performed strongly on criteria capturing structured narration and intercultural awareness. Aggregated rubric scores were highest for Narrative Coherence (M = 4.83, SD = 0.44) and Intercultural Understanding. At the code level, this strong performance was reflected in the high prevalence and intensity of Cultural Awareness (CA; M = 4.77, SD = 0.60) and Empathy & Feelings (EF; M = 4.69, SD = 0.50), which together constitute the awareness dimension of intercultural understanding. Greater dispersion appeared on Critical Incident (CI) (M = 4.39, SD = 0.81), Behavioural Evidence (BE) (M = 4.46, SD = 0.73), and Reflexivity (RE) (M = 4.56, SD = 0.75).

Constraints of ceiling effects on discriminant assessment

The concentration of scores at the upper end of the rubric scale indicates a ceiling effect, with most assignments clustering between 4 and 5 on Narrative Coherence, Cultural Awareness, and Empathy-related criteria. This compression limits the discriminant capacity of the rubric to differentiate among higher levels of intercultural positioning, particularly with respect to fine-grained distinctions proposed in developmental models (e.g., adaptation versus integration). As a result, rubric-based awareness indicators should be interpreted primarily as evidence of successful elicitation of intercultural content rather than as precise measures of advanced developmental stages. Analytic leverage therefore, lies less in further differentiation of awareness scores and more in examining criteria and codes that capture translation into practice, such as Behavioural Evidence (BE), Inclusion Practices (IN), and Active Citizenship (AC). Qualitative citation analysis is particularly important for distinguishing how students articulate and operationalise inclusive action beyond expressed awareness. Read together, these patterns suggest that ceiling effects reflect strong elicitation but limited discrimination at the upper range; they also indicate where pedagogical design succeeds in surfacing awareness and where additional scaffolding is required to strengthen enactment.

Figure 2: Mean Rubric Scores Across Five Criteria



Two broad patterns characterise the corpus. First, the assignment consistently elicited coherent narratives and recognition of diversity-related issues and emotions: most students narrated experiences clearly and identified cultural differences and associated feelings. Second, the criteria linked to transformative learning, critical interrogation of incidents, and translation into practice, showed greater variability. However, ceiling compression is evident for narrative and awareness dimensions, leaving limited room to distinguish advanced levels of intercultural and civic maturity.

Internal relationships among criteria indicate meaningful associations among criteria.

Reflexivity correlates moderately with Critical Incident (r ≈ .56) and Coherence (r ≈ .42), suggesting deeper self-interrogation co-occurs with substantive incident analysis and narrative control. By contrast, links between Critical Incident and Behavioural Evidence (r ≈ .30) and between Reflexivity and Behavioural Evidence (r ≈ .10) are weaker. In short, students who write rich, reflective stories about diversity do not consistently describe changes in practice, echoing concerns about the "last mile" between insight and enactment. While students often reach an insightful understanding of diversity, expressing empathy, and analysing incidents. they struggle to translate these reflections into concrete behavioural or civic commitments.

Correlations are reported descriptively to characterise association patterns; interpretation emphasises effect size rather than significance testing, given the exploratory design and ceiling compression.

Figure 3: Inter-criteria Correlation Matrix

Criterion	NC	IU	CI	RE	IA
NC (Narrative)	1	0.35	0.38	0.42	0.25
IU (Intercult)	0.35	1	0.45	0.48	0.3
CI (Critical)	0.38	0.45	1	0.56	0.3
RE (Reflexive)	0.42	0.48	0.56	1	0.1
IA (Action)	0.25	0.3	0.3	0.1	1

From Awareness to Action: A Persistent Gap

To make the "last mile" visible, two composite indicators were constructed: the **Awareness-Action gap** and the **Actionability Index (AI)**. At the code level, Awareness was calculated from Cultural Awareness (CA) and Empathy & Feelings (EF), aligning with the rubric criterion *Intercultural Understanding*. Awareness was operationalised in two complementary ways: as intensity (mean CA+EF scores) and as prevalence (frequency of CA/EF codes), while Action was examined through the presence and depth of Behavioural Evidence (BE), Inclusion Practices (IN), and Active Citizenship (AC). While awareness codes appear in nearly all sketches, action codes, when present, are typically less specific and less transferable, which is illustrated in the qualitative excerpts that follow. This pattern suggests that students are more likely to narrate their diversity experiences and emotional responses than to specify concrete inclusive practices. This gap may reflect both assignment prompts (which emphasised experience over action planning) and developmental progression consistent with transformative learning models (Mezirow, 2000). Binary code coverage confirms this pattern: At the

sketch level, awareness-related codes showed near-universal presence, with Cultural Awareness (CA) identified in 97% of assignments, Empathy & Feelings (EF) in 98%, and Reflexivity (RE) in 100%. Action-oriented codes were less consistently present at the assignment level, with Behavioural Evidence (BE), Inclusion Practices (IN), and Active Citizenship (AC) identified in 72%, 54%, and 66% of sketches, respectively. Many students narrated interethnic tensions or exclusion and expressed empathy, yet fewer articulated repeatable strategies, such as adapting grouping norms or language scaffolds, to make future teaching more inclusive.

As detailed in Methods, the Actionability Index AI = mean (RE, CI, BE) was 4.47; 59% of assignments scored ≥ 4.5, indicating that in three of five cases, students moved toward credible, inclusive action. However, the weak correlation between Reflexivity and Behavioural Evidence ($r \approx .10$) signals that sophisticated reflection does not guarantee behavioural commitment. This underscores why BE, IN, and AC are treated as distinct dimensions rather than assumed outcomes of narrative coherence or self-awareness. Pedagogically, this highlights the need for stronger scaffolding around the "so what?" of reflection, explicitly requiring students to formulate and document inclusive routines, civic initiatives, or professional practice changes. Turning to Objective 1**,** phase comparisons illustrate how changes in prompts, scaffolds, and feedback conditions relate to differences in reflective depth and action articulation.

Temporal Patterns Across Cohorts

Although data originate from four universities, the analytic focus is temporal rather than institutional. The three phases (2009–2010, 2015, 2022–2024) reflect the gradual embedding of reflective and intercultural pedagogy in Georgian higher education - from early experimental use of autobiographical sketches, through intermediate diversification into diversity- and policy-oriented courses, to mature integration within postgraduate and doctoral programs.

A comparison of earlier (2009–2015) and later (2022–2024) cohorts offers a cross-temporal comparison on how design features and system reforms coincide. Using Cohen's d to characterise the magnitude of differences, Critical Incident ($d = +0.63$, medium-to-large effect) and Reflexivity ($d = +0.39$, small-to-medium effect) scores are higher in recent cohorts, whereas Behavioural Evidence is stronger in earlier cohorts ($d = -0.61$, medium-to-large effect). This descriptive comparison suggests that students now analyse diversity-related dilemmas and interrogate assumptions more deeply but articulate fewer concrete inclusive practices. Given unequal phase sizes and potential non-normality due to ceiling effects, d values are interpreted as approximate magnitude indicators.

This shift aligns with changes in assignment framing. Recent phases standardised prompts and rubrics and encouraged resubmission, strengthening narrative coherence and reflective depth. Students

increasingly link stories to structural factors, language policy, curriculum gaps, and religious rituals, and acknowledge positionality and bias. Yet they often stop at intention ("I will try to be more attentive…") without specifying classroom routines or civic engagement. Earlier cohorts, though narratively less polished, describe tangible acts such as mediating conflicts, adapting group work, supporting minority peers, or initiating community projects. Quantitatively, Behavioural Evidence and Inclusion Practices codes appear in up to 95% of early assignments, compared with substantially lower rates later. The pattern is not "more is better" but a rebalancing: gains in coherence and depth sometimes coincide with under-articulated practice. Regarding Objective 3, thematic patterns show when empathy and critical incidents consolidate into civic/inclusive orientation

Thematic coding frequencies and the meaning of students' writing

Building on the rubric-level view of awareness, reflection, and action, we use thematic coding to see what students actually write. Applying the eight-code scheme from the methodology, we grouped 637 excerpts to identify dominant intercultural and civic experiences and how they enable or hinder the articulation of inclusive practices. Codes of awareness and reflection (CA, EF, CI, RE) appear in nearly all assignments, while practice-related and civic codes (BE, IN, AC) occur less often and unevenly. The analysis shows where these codes "live" in narratives and what episodes reveal cultural difference, injustice, care, and civic engagement. These results address Objective 2, indicating where growth-relevant indicators cluster (awareness/coherence) versus where variability remains (incident analysis and enactment.

Everyday contact and unequal treatment form is the largest cluster as dominant experiences of interethnic contact and friendship (258 citations). Students often situate stories in ordinary spaces - classrooms, village streets, in projects, where Armenian, Azerbaijani, Russian, or other minority peers are real people with whom they study, joke, argue, and build trust. Many vignettes convey warmth and details, like shared tea, joint exam prep, or family visits. Diversity here appears less as policy and more as lived reality.

Alongside these supportive encounters is a second major cluster: teacher bias and unequal treatment (104 citations). Students recall being ignored, ridiculed, and disadvantaged or seeing peers suffer, due to language, faith, ethnicity, disability, or social background. One student notes that in her village "both teachers and locals spoke about other ethnic groups in a very negative, dismissive way," shaping her later unease with non-Georgian classmates. Another recalls a lecturer grading Azerbaijani students more softly, which she now interprets as lowered expectations rather than care. These clusters show sketches gravitate toward contact zones where difference is mediated through peers and teachers, not abstract categories. Contact can foster friendship and solidarity, but also leave deep marks when power is misused or expectations are uneven.

Institutional and structural drivers: religion, language, and curricular gaps

Other themes point to institutional arrangements. Sketches coded as religious indoctrination (59 citations) describe rituals, prayers, or "moral" lessons framing some students as "proper" Georgians and others as suspect. Those who did not conform due to belief, secular upbringing, or embarrassment felt quietly marginalised in classrooms where religion and national identity fused.

Another set of quotes focuses on language, accent, and access (56 citations). Students recount struggling with Georgian as an additional language, being mocked for accents, or watching peers "disappear" in lessons because materials and instruction lacked accommodation. Several note that while higher education endorses equality, structural support, prep courses, adapted materials, and linguistic scaffolds are scarce.

A smaller but important cluster highlights a positive multicultural climate (67 citations). Here, universities are described as places where "no one was singled out or humiliated" and staff "treated everyone equally" regardless of ethnicity or language. These sketches counter inequality narratives, showing institutional cultures where diversity is normalised and dignity protected. Students also evaluate coherence between rhetoric and reality. One student notes a "Tolerance" course in the programme was "often not delivered," signalling a gap between curricular promises and actual learning.

Signs of inclusion practices and civic agency

Although less frequent, themes coded as inclusion practice/differentiation (32 citations) and empathy/care/compassion (27 citations) are key for understanding how some students bridge the gap between awareness and enactment. Inclusion-practice episodes describe concrete moves: mixing groups, adjusting tasks for weaker language skills, mediating conflicts, or setting norms to protect minority students. One student joined a tutoring initiative for non-Georgian-speaking freshmen, adapting explanations, accompanying students to offices, and helping them "to feel less foreign in the new city." Another, during practicum, invited pupils to share regional stories, paired students strategically, and rephrased tasks "so nobody quietly disappears."

A small but symbolically important cluster shows explicit civic actions (AC): collecting signatures for a kindergarten, organising campus diversity events, joining projects for minority students, or supporting displaced families. One student wrote that after hearing displaced people's stories, she "could no longer remain only 'tolerant'; "I wanted to help shape a new generation that would treat difference as normal." These accounts show reflection occasionally crystallising into responsibility beyond the classroom.

Overall, such inclusion routines and civic initiatives remain modest compared to larger pools of awareness, empathy, and critical incidents. This imbalance echoes rubric-level patterns where

Behavioural Evidence, Inclusion Practices, and Active Citizenship appear less consistently and at lower depth than Cultural Awareness or Empathy.

The "Other" category and its analytical limits

Nearly a third of the coded citations fall into an "Other" category (197 citations). These fragments provide context, family histories, general descriptions of schools or universities, and emotional atmospheres, but do not engage directly with cultural difference, power or inclusion. They enrich the narrative texture of the sketches yet contribute little to the specific constructs of the intercultural and civic framework. For that reason, they were not used for thematic comparisons, although they remain important for understanding each student's broader life story.

Placed alongside the rubric results, the thematic distribution sharpens the profile of the awareness-action gap that runs through this study. Most students chose to narrate experiences in which diversity is very present: interethnic or international friendships, biased or supportive teacher behaviours, religious rituals, language barriers and occasional institutional good practice. These choices demonstrate high levels of cultural awareness, empathy and critical-incident recognition, exactly the dimensions where rubric scores cluster at the top end. By contrast, far fewer students dwell on how they altered their own practice as emerging teachers, administrators or professionals. Inclusive routines and civic engagements are visible, but they occupy a smaller part of the thematic landscape than one might expect given the richness of students' diagnoses of injustice and exclusion. In other words, the sketches show that students see and feel a great deal, but they are less consistent in turning these insights into articulated, sustainable patterns of action.

Code frequencies are reported using sketch-level presence (whether a code appears at least once), which captures breadth of engagement and shows the gap between metrics that is small (CA: 97% vs 84%; EF: 98% vs 71%). This indicates that when students mention cultural awareness, they typically demonstrate it. For action codes, the gap is larger (BE: 72% vs 38%; IN: 54% vs 33%), indicating that mentions of inclusive behaviour are often brief or aspirational rather than concretely described.

Thematic coding of 637 quotations using the eight-code scheme shows that Cultural Awareness (CA) and Reflexivity (RE) were most pervasive, present in 84% and 79% of assignments, with Empathy & Feelings (EF) also high (71%). When a stricter criterion is applied, focusing on clearly articulated, elaborated, or sustained instances of enactment, Behavioural Evidence (BE) is evident in 38% of sketches, Inclusion Practices (IN) in 33%, and Active Citizenship (AC) in 21%. The contrast between broader sketch-level presence and these more conservative estimates highlights the gap between initial mention of action and fully articulated, actionable commitment. In short, most students

recognise cultural differences, describe emotions and dilemmas, and interrogate assumptions, but far fewer describe concrete, repeatable, inclusive practices or civic initiatives. This mirrors the awareness–action "last mile" seen in rubric scores, but at the level of lived experience and narrative detail. Regrouping coded quotations into broader themes produced a similar landscape. The most frequent were:

- Interethnic contact and friendship (N = 258)
- Teacher bias and unequal treatment (N = 104)
- Positive multicultural climate (N = 67)
- Religious indoctrination in school (N = 59)
- Language and accent/access barriers (N = 56)
- Inclusion practices and differentiation (N = 32)
- Empathy, care, and compassion (N = 27)
- Other/contextual narrative (N = 197)

Three clusters stand out for the research questions: (1) contact and friendship across differences, (2) structural and institutional harms, and (3) early traces of inclusive and civic action.

Table 3: Distribution of Thematic Codes Across 637 Quotations

Theme Category	N (Count)	% of Total	Example Codes
Interethnic Contact & Friendship	258	40.50%	CA, EF
Teacher Bias & Unequal Treatment	104	16.30%	CI, RE
Positive Multicultural Climate	67	10.50%	CA, EF
Religious Indoctrination	59	9.30%	CI, RB
Language & Accent Barriers	56	8.80%	CA, BE
Inclusion Practices	32	5.00%	BE, IN
Empathy/Care/Compassion	27	4.20%	EF, AC
Other/Contextual	197	30.90%	Various

Contact and friendship across differences

The largest thematic cluster, interethnic contact and friendship, includes narratives of neighbours, classmates, or colleagues from minority backgrounds, shared celebrations, and collaborative projects. Many episodes originate in school or community settings rather than university, suggesting reflective writing prompts students to revisit formative experiences as they prepare for professional roles.

These stories often combine Cultural Awareness (CA) with Empathy & Feelings (EF), and

students notice differences in language, clothing, religion, customs, while expressing curiosity, discomfort, or admiration. In many cases, contact becomes a turning point: early prejudice gives way to recognition of commonalities and a more nuanced view of "the other." This mirrors intercultural-development literature but is grounded in small, concrete episodes rather than abstract attitudes.

However, even in this large cluster, explicit descriptions of subsequent educator or citizen actions are rare. Many sketches end at changed perception ("I started to think differently…") without bridging to classroom routines, curriculum choices, or civic action. Contact experiences thus offer fertile ground for insight, but only sometimes translate into articulated plans for inclusive practice.

Structural harms: bias, religious pressure, and language barriers

A second sizeable cluster centres on teacher bias and unequal treatment, often linked to religious indoctrination and language/accent barriers. Students recount witnessing or experiencing differential grading, public shaming, derogatory comments, or pressure to conform to dominant rituals.

These episodes are typically coded with Critical Incident (CI) and Reflexivity (RE), as they involve breaches of fairness that force re-evaluation of norms. Several sketches acknowledge prior complicity, remaining silent when peers were humiliated, accepting biased narratives, reproducing stereotypes and later frame this recognition as a catalyst for change ("then I realised… now I try to…"). Such accounts echo disorienting dilemmas in transformative-learning theory.

Language and accent barriers form a related thread. Students describe peers struggling with Georgian as a second language, unequal access to preparatory programmes, or ridicule for non-standard accents. These stories show how structural inequalities persist through curriculum design, assessment formats, and a lack of language support. Again, awareness and moral evaluation dominate, but few sketches detail how writers now scaffold language or advocate policy changes.

Across these themes, autobiographical assignments surface system-level constraints - bias, ritual pressure, and access gaps that shape intercultural positioning and frame the context for inclusive practice.

Protective factors and emerging inclusive action

A smaller but important cluster includes quotations coded as Inclusion Practices (IN), Behavioural Evidence (BE), Active Citizenship (AC), and Empathy/Care (EF), oriented toward action. These excerpts describe concrete moves: reorganising groups to avoid isolating minority students, adjusting tasks for language levels, mentoring peers, organising diversity days, or initiating community projects.

Though less frequent than awareness-focused themes, these accounts illustrate what closing the "last mile" looks like. They cluster in later phases, when students are in teaching or public-service

roles. Reflection explicitly connects past exclusion or solidarity to present responsibilities: (a) Writers recall dismissive comments and explain how they now respond differently; (b) They describe civic initiatives (e.g., tutoring, petitions, advocacy) linked to prior insights; (c) They adopt routines, such as rotating speaking turns, bilingual materials, and intentional group work as deliberate responses to earlier injustices.

These narratives show that when assignments invite students to articulate what they did or will do differently, autobiographical writing can document and reinforce a trajectory from insight to inclusive practice.

Taken together, thematic distributions confirm and nuance the study's central claim. Autobiographical reflective writing, scaffolded through prompts and feedback, surfaces intercultural experience in Georgian higher education: friendships across difference, memories of bias, contested rituals, and emerging inclusive and civic initiatives. Students are not short of material; the challenge is translating awareness into repeatable practices and sustained engagement.

From the three strands: **Reflective-pedagogy** is strongly represented: students narrate experiences, interrogate assumptions, and describe shifts in meaning-making; **Intercultural development** appears in themes charting movement from unexamined norms toward more complex positioning; **Civic/inclusive-learning** is thinner - BE, IN, and AC cluster in later sketches and around assignments that ask for future-oriented action.

This pattern underscores a key implication: if the goal is progression from awareness to enacted practice, reflective tasks cannot stop at "tell your story." They must push students to articulate practices, routines, and civic commitments, and revisit them over time.

Discussion

The findings confirm that autobiographical reflective writing reliably surfaces intercultural awareness, emotional engagement, and reflexive meaning-making. High prevalence of Cultural Awareness, Empathy & Feelings, Critical Incident, and Reflexivity indicates that students readily access interpretive and moral dimensions of diversity, consistent with research on reflective and transformative learning (Mezirow, 2001; Kember et al., 2008; Ryan, 2012). Throughout the discussion, references to "action" are used as shorthand for three analytically parallel dimensions - Behavioural Evidence, Inclusion Practices, and Active Citizenship, which capture different sites and scales of enactment. The key contribution of this study lies not in documenting awareness per se, but in showing where and why translation into inclusive or civic practice remains uneven.

However, the study also exposes the well-documented awareness–action gap (Deardorff, 2006; Baxter Magolda, 2005). Behavioural Evidence, Inclusion Practices, and Active Citizenship appear less

frequently and with less detail, reflecting earlier findings that moral sensitivity and intercultural disposition do not automatically translate into action (Campbell et al., 2013). Composite indices reinforce this: Awareness scores consistently exceed Action; many students articulate ethical commitments that remain abstract or aspirational. This confirms broader literature showing that inclusive or civic behaviour requires explicit instructional design, opportunities for enactment, and structured reflection (Chittum, Enke, & Finley, 2022).

Cross-institutional differences further confirm the importance of design and facilitation. Courses incorporating dialogic feedback, multi-stage submission, and explicit links to practice are more likely to produce sketches that move from reflection to action. Where scaffolding is weaker, narratives remain emotionally vivid but less grounded in concrete, inclusive or civic strategies. This parallels evidence that reflective assignments yield developmental impact only when embedded in coherent pedagogical systems (Ash & Clayton, 2009).

Overall, the findings position autobiographical writing as a reliable mechanism for surfacing intercultural experience and reflective depth, while demonstrating that behavioural and civic enactment requires intentional, structured support.

Curricular and assessment implications

Several concrete implications for curriculum and assessment follow from this analysis: First, *design for transfer and enactment.* If the aim is to support movement from reflection to inclusive behaviour, autobiographical writing cannot remain a marginal exercise. It should be embedded in developmental cycles where students (a) analyse experiences, (b) formulate specific inclusive or civic responses, (c) implement or rehearse these responses, and (d) revisit them in later reflections. Assignment briefs and marking criteria must explicitly require evidence of practice as a core expectation, not an optional extra.

Second, *tightening rubric anchors.* The high concentration of top scores on Cultural Awareness and Reflexivity suggests recalibrating upper-level anchors. A "5" might require not only rich reflection but also explicit linkage to frameworks (e.g., intercultural maturity, DMIS, civic-learning literature), awareness of policy or institutional context, and clearly described, plausible practices. This would reduce ceiling effects, sharpen distinctions between competent and advanced performances, and make progression more visible.

Third, *feedback as a transformative tool.* The strongest examples of developmental movement appear where feedback is criterion-based, dialogic, and feed-forward. Students revise sketches in light of comments naming strengths and gaps in reflective depth, intercultural understanding, and inclusive action. Investing in staff feedback literacy, shared rubrics, and examples of effective comments is as important as assignment design. Without such support, sketches risk remaining eloquent diagnostics

of inequality without translating into changed practice.

Fourth, *alignment with QA and programme-level evidence.* Well-designed reflective tasks can serve quality-assurance priorities. Autobiographical sketches produce authentic artefacts that feed into course review, programme accreditation, and curriculum reform as direct evidence of learning outcomes related to intercultural competence and civic readiness. Studies show that when reflection combines with civic projects, resulting artefacts provide rich evidence for programme-level outcomes (Chittum, Enke, & Finley, 2022). The mixed-method framework here, codes, rubric scores, and narrative excerpts, offers one model for turning individual assignments into aggregated, interpretable data for decision-making.

Fifth, *attention to local cultures of facilitation.* Variation across courses and institutions shows that impact depends on facilitation practices, staff readiness, and programme integration. In systems like Georgia's, where Bologna, ESG, and NQF expectations have reshaped structures, reflective pedagogy must be recognised as a core mechanism for making those expectations real. This requires institutional support: time for feedback, communities of practice around reflective teaching, and explicit inclusion of such tasks in curriculum maps and assessment strategies.

Scholarly importance of the study and suggestions for future research

As detailed in the introduction, this integrated framework offers conceptual, methodological, and practical contributions to the field. This framework can guide future research and be tested in other contexts. Methodologically, it offers a transferable combination of rubric-based assessment, thematic coding, and narrative citation adaptable for programme evaluation and research elsewhere. Practically, it points to design principles around prompts, rubrics, feedback, and QA alignment that help universities turn reflective writing from a private exercise into a structured social practice with demonstrable outcomes.

The analytical model emerged through iterative cycling between data patterns and established theoretical frameworks, integrating three interwoven dimensions: (a) reflection on experience and positionality, (b) intercultural engagement with difference, and (c) orientation toward inclusive or civic action. This integration was necessary because autobiographical sketches function simultaneously as reflective narratives, intercultural positioning statements, and civic intentions, dimensions that no single existing framework captures comprehensively.

The model operates at two levels. At the coding level, an eight-code thematic scheme (CA, EF, CI, BE, RE, RB, AC, IN) enabled systematic tracing of how students sequenced narratives, interpreted critical incidents, framed cultural differences, acknowledged biases, and projected inclusive actions. Although informed by established frameworks (DMIS, intercultural maturity, civic learning), coding categories were "iteratively refined abductively (data-led, theory-interpreted) through close reading,

grounding analysis in students' authentic voices while maintaining theoretical coherence.

At the evaluative level, a five-criterion rubric (narrative coherence, reflexivity, critical incident, intercultural understanding, inclusive action) assessed depth and developmental movement across entire sketches. The rubric provided analytic sensitivity to distinguish, for example, between sketches that merely describe experience versus those demonstrating interpretive growth, or between generic aspirations and concrete commitments to practice - distinctions essential for a dataset spanning fifteen years with subtle, uneven developmental shifts across cohorts.

This dual-level architecture accommodates narrative diversity while enabling temporal comparison. Because the model emerges from authentic student narratives yet remains theoretically anchored, it offers an adaptable framework for future research on reflective and intercultural learning in higher education.

Conclusion

This study demonstrates that autobiographical reflective writing, when systematically scaffolded, offers higher education a robust means of evidencing intercultural awareness and civic consciousness across cohorts spanning fifteen years. Analysing 122 sketches across fifteen years shows how reflection evolves from descriptive narration toward more analytically framed and reflexive engagement with diversity, while revealing persistent challenges in translating insight into enacted practice.

Several limitations must be acknowledged. Autobiographical texts are vulnerable to selective recall and social desirability; the dataset is uneven across phases and institutions; and high-end compression in rubric scores limits fine-grained discrimination among advanced performances. Future research should pursue temporal comparison across cohorts to examine whether reflective gains translate into sustained behavioural change in professional or civic contexts. Comparative studies across cultural and disciplinary settings would further test generalizability. Effect sizes are reported descriptively to characterise the magnitude of differences and should not be interpreted as causal estimates due to cohort heterogeneity and imbalanced group sizes. Finally, closer integration of reflective writing with structured intercultural encounters may offer the most promising pathway for narrowing the awareness-action gap.

Ultimately, autobiographical reflective writing can serve as a low-cost, high-impact pedagogical tool for advancing intercultural and civic learning - provided it is not left to stand alone. When coupled with intentional prompts, actionable rubrics, and dialogic feedback, such writing helps students move beyond “saying the right things” about diversity toward gradually doing those things in their classrooms, institutions, and communities.

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