

Enhancing Interactive Learning in English-Medium Science: A Practitioner Intervention within the CLIL Framework

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Abstract

Interactive learning is essential for meaningful engagement in science classrooms, especially in Sri Lanka's bilingual education (BE) system, where students transition from Mother Tongue Instruction (MTI) to English Medium Instruction (EMI) in Grade Six. Student reluctance to participate in EMI science lessons, often due to limited English proficiency, remains underexplored in this context. This study investigated the root causes of student reticence and implemented targeted interventions to enhance interaction through collaborative group work, evaluating the efficacy of these interventions. The research involved 21 Grade 8 Tamil-English emerging bilingual female students from a government school in the Western Province of Sri Lanka, who exhibited varied levels of English proficiency. None had prior exposure to Content and Language Integrated Learning (CLIL), the specified teaching approach to EMI, which is the main strategy deployed in the study. For this purpose, a single-group, quasi-experimental mixed-methods action research design was employed, structured around Lim's (2007) balanced model. Data collection occurred over three stages: before, during, and after intervention, using academic records, structured oral tasks, focus group discussions, classroom observations, and questionnaires. The intervention used collaborative group strategies within a CLIL framework, incorporating multimodal scaffolding, translanguaging (navigation between L1 and L2), and motivational techniques to foster engagement. Qualitative data underwent Thematic Content Analysis (TCA), and the quantitative written and oral evaluation marks from pre-test, test during the intervention, and post-test were compared using a Paired t-test. Foreign Language Classroom Speaking Anxiety (FLCSA) was inferred through pre-test qualitative indicators. The mid-intervention and the post-test findings confirm that collaborative CLIL activities, when novel, cognitively stimulating, and linguistically supportive, can significantly enhance interactive learning, reduce anxiety, and promote engagement in bilingual EMI classrooms. This study offers practical implications for science educators seeking to apply integrative pedagogical approaches tailored to the linguistic and cognitive needs of BE learners. Further research should explore long-term retention and use validated anxiety measures within control group settings.

Keywords: Bilingual Education; Interactive Learning; CLIL; FLCSA; EMI, Collaborative Learning

Introduction

Student interaction is vital in science classrooms, as it promotes inquiry-based learning, critical thinking, and conceptual understanding through dialogue and collaboration. In Sri Lanka's Bilingual Education (BE) framework, where students shift from their MTI to EMI in Grade 6, language proficiency often becomes a barrier to active

engagement. Although many students perform reasonably well in written General English¹ (GE) tests, classroom observations reveal ongoing challenges in integrated, context-dependent spoken Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Cummins, 2000), particularly needed during science instruction. BICS refers to conversational fluency in informal settings, whereas CALP involves cognitively demanding academic language (Cummins, 2000). Despite their written General English (GE) proficiency, these students hesitate to articulate academic ideas or engage in peer discussions and collaboration, limiting interactive learning. Coyle, Hood, and Marsh (2010) link ‘language of learning’ with CALP and ‘language for learning’ with BICS in their Language Triptych model. This distinction emphasizes that content-specific language (CALP) and classroom interactional language (BICS) required for science differ from General English and necessitate explicit pedagogical support in EMI classrooms.

Initial classroom observations and student oral presentations, triangulated by questionnaire responses, show students' low performance/conceptual understanding and reluctance to participate in oral interaction. These pre-intervention data corresponded with the participants' low performance in science, whose pre-intervention written test data typically ranged between 45 and 60, indicating low verbal and written ability in CALP. These challenges demand a pedagogical approach that integrates language development into subject instruction. As such, the teaching approach recommended in EMI classrooms is CLIL, which is “an educational approach in which various language-supportive strategies are integrated into subject teaching to enhance both content and language learning” (Coyle, Hood, & Marsh, 2010, p. 1; Wang & Liu, 2024). This CLIL framework revolves around the 4Cs—Content, Communication, Cognition, and Culture—which ensure a holistic integration of subject matter and language learning (Coyle et al., 2010). However, CLIL has not yet been effectively adopted in Sri Lankan EMI classrooms due to major gaps in pre- and in-service teacher training (Wijesekera & Nanayakkara, 2024).

Although EMI has been widely implemented in the Sri Lankan BE context, few empirical studies have explored targeted CLIL interventions, particularly to reduce reluctance to speak and improve science engagement, which is almost non-existent in the Sri Lankan context, to our knowledge. This study, therefore, aims to explore the root causes of student reluctance from teacher and student perspectives and implement targeted CLIL interventions to foster active and confident participation in BE science learning.

Multiple interrelated factors may contribute to student reticence in EMI classrooms, spanning affective, linguistic, psychological, and environmental dimensions (Irwanthi, 2017; Nagodavithana & Premarathne, 2023). Among these, it was perceived that Foreign Language Classroom Speaking Anxiety (FLCSA) may play a significant role. FLCSA is a speaking-specific form of Foreign Language Anxiety (FLA), defined as “a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom language learning arising from the uniqueness of the language learning process” (Horwid, Horwid, & Cope, 1986, p. 128). In EMI settings, fear of making mistakes and being judged, especially when the English language (L2) is perceived as a symbol of status, deters students from speaking (Fattahi Marnani & Cuocci, 2022; Wijesekera, 2012; Wijesekera, 2018). Linguistic barriers, such as limited content-specific vocabulary and underdeveloped academic language proficiency, hinder comprehension and expression. These challenges are compounded by low self-confidence and fear of negative evaluation, core features of FLA that suppress participation (Horwid, Horwid, & Cope, 1986). Additionally, limited teacher-student rapport may further reduce opportunities for meaningful engagement in teaching/learning. Collectively, these factors create a classroom environment that discourages speaking and interactive learning. In response, a CLIL-based intervention was introduced, integrating translanguaging (Wei, 2010) to support content processing and lower anxiety, while gradually building students’ ability to express scientific concepts in English. Collaborative group work, an essential aspect of CLIL’s 4Cs, formed the core of the intervention, supported by multimodal

¹ General English or English as a Second Language (ESL) is taught in Sri Lankan Schools from Grade 3 to 13, aiming to teach BCIS. Since only writing and reading skills are tested in public examinations, the negative washback effect impacts teaching and learning. This results in focusing only on writing and reading, especially neglecting speaking.

scaffolding tailored to students' linguistic and curricular needs. These strategies aimed to reduce student reticence and mitigate the perceived impact of FLCSA, promoting a more interactive, inclusive, and linguistically supportive EMI science classroom.

Theoretical Underpinnings

This study is grounded in the premise that perceived FLCSA is a significant obstacle to interactive learning in EMI settings. According to Krashen's Monitor Model, high affective filters such as anxiety can hinder both language acquisition and academic performance (Krashen, 1982). This is emphasised in recent findings showing that speaking anxiety continues to be a major barrier to student engagement and participation in foreign language classrooms (Nuralieva et al., 2024). In response, this study implemented an intervention blending collaborative learning, motivational strategies (Ahmed, 2012), and linguistic scaffolding to mitigate FLCSA in the BE science classroom.

This study draws on Sociocultural Theory, which emphasizes the role of social interaction in learning and language development. Vygotsky (1978) underlines how expert peers scaffold learning through tools such as metatalk and peer collaboration, which facilitate both comprehension and acquisition. This is supported by findings on Language-Related Episodes (LREs), which emerge during collaborative group tasks and enhance fluency and understanding (Wijesekera, 2012). Furthermore, effective group interaction depends on principles like positive interdependence, individual accountability, and supportive dynamics, all of which foster communicative competence in L2 contexts (Ahmed, 2012; Ibrahim & Adnan, 2019; Johnson et al., 2014, as cited in Wijesekera, 2012).

The intervention was framed by the CLIL approach, which promotes simultaneous content and language development (Coyle et al., 2010). CLIL fosters meaningful communication and has been shown to improve oral outcomes, reduce anxiety, and boost motivation in EMI settings (Marshall, 2000; Moate, 2011; Held, 2017; De Diezmas, 2016). In this study, CLIL was operationalised through instructional strategies grounded in social constructivist pedagogy, which views learning as co-constructed via interaction, negotiation, and scaffolding (Dewey, 1938; Piaget, 1970). Interactive, task-based activities such as Think-Pair-Share and information gap tasks supported purposeful peer communication (Prabhu, 1987). Task-based activities promote meaningful communication, fluency development, and reduce speaking anxiety by shifting the learner's attention toward interaction and collaboration (Ahmed, 2012; Ellis, 2003; Sholeh et al., 2020).

While past research often treats FLCSA and interactive learning as separate challenges, this study explores their intersection in the BE science classroom. By embedding collaborative group work within a CLIL framework, the study demonstrates how anxiety reduction, language development, and content mastery can be simultaneously achieved, offering a practical model for strengthening bilingual education in Sri Lanka and other similar EMI contexts.

Objectives

1. To investigate the root causes of student reticence in the EMI science classroom through teacher and student perspectives and propose targeted interventions.
2. To identify which CLIL-based strategies are most effective in promoting verbal engagement and reducing speaking anxiety.
3. To implement the selected strategies in a classroom setting and evaluate their efficacy on student participation and performance

Materials and Methods

Participants and Research Design

This study involved 21 Grade 8 Tamil-English bilingual female students from a 1AB government school in Sri Lanka's Western Province, each with heterogeneous L2 proficiency. These students had not previously been exposed to Content and Language Integrated Learning (CLIL), and the first author, as their science teacher, was newly appointed to their class. This study adopted a quasi-experimental, single-group, mixed-methods action research design, guided by the balanced model proposed by Lim (2007). The research design integrated a multi-dimensional pre-test phase, mid-intervention monitoring, and a post-test to assess student performance and interaction over time.

The pre-intervention phase combined existing academic scores of L2 and Science with newly administered oral presentations and fresh qualitative insights gathered through structured observations and student questionnaires. This approach enabled a comprehensive baseline assessment of learners' cognitive, linguistic, and affective starting points. FLCSA was inferred from qualitative indicators such as visible anxiety, self-reports, and a structured protocol used in teacher observation. The design was particularly suited to the action research context, where iterative reflection and continuous improvement are central to both process and outcomes.

The Intervention

The core intervention centered on collaborative group work aligned with CLIL principles. Students were organized into five heterogeneous groups considering L2 fluency, subject knowledge, and ethical considerations such as student willingness and equitable participation (Ibrahim & Adnan, 2019). To foster engagement, a range of multimodal (Lian, 2025), task-based activities were implemented, including Think-Pair-Share, information gap tasks (Prabhu, 1987), mini whiteboards, multimedia group presentations, and live experiments with activity recordings. On a par with social constructivism, scaffolding strategies were utilized to support language gaps and content comprehension. These strategies included sentence starter prompts, process diagrams, vocabulary blanks (Ibrahim & Adnan, 2019), and multimedia aids to address linguistic and conceptual gaps. Additionally, translanguaging (Garcia & Wei, 2014) between L1 and L2 in metatalk was intentionally encouraged (Garcia, 2009) to reduce cognitive load (Sweller, 1988) and enable flexible thinking within group discussions. A blended learning component was also introduced, with home-based pre-lesson tasks designed to activate background knowledge and support in-class performance. Motivation was reinforced through praise, relaxation techniques, and a rubric-based scoreboard that fostered a psychologically safe and competitive learning environment. Together, these CLIL-driven strategies aimed to enhance interaction, reduce anxiety, and build both linguistic confidence and scientific understanding in the EMI classroom.

Instruments, Data Collection and Data Analysis

Pre-intervention quantitative data were collected from students' written evaluation marks of L2 (GE) and science, alongside oral presentations assessed using rubrics. Qualitative insights into students' speaking, writing, and comprehension abilities were obtained through classroom observations, structured/open-ended questionnaires, followed by focus group discussions. These instruments primarily informed the identification of root causes behind student reticence and guided the refinement of the intervention. Data during intervention included rubric entries, scoreboard marks, focus group notes, observation records, and teacher-reflective journals, used to evaluate the effectiveness of CLIL strategies in promoting verbal engagement and reducing perceived FLCSA. Post-intervention data were drawn from written science marks, group presentation scores, student reflections, focus groups, and observation records to assess the intervention's overall impact on participation and performance. A mixed-methods analysis approach was adopted (Simons et al., 2019; Lim, 2007). Qualitative pre-test data were examined using root

cause analysis (Anderson & Fagerhaug, 2006), underpinned by behaviorist and cognitive psychology theories (Hardin, 2003). Quantitative pre-test data were analyzed via Pearson's Correlation Coefficient to explore links between L2 and science performance. Thematic Content Analysis (TCA) (Braun & Clarke, 2006), informed by expert-novice problem-solving theory, a framework from cognitive psychology that examines how experts and novices differ in their approaches to solving problems (Hardin, 2003; Sweller, 1988; Chi et al., 1981), was applied to the data during and post-intervention qualitative data. Comparative analysis of pre- and post-intervention outcomes used paired t-tests for quantitative results and TCA for qualitative findings, framed by higher-order learning theories (Hardin, 2003).

Results and Discussions

Pre-Test Results:

The pre-intervention assessment (pre-test) revealed notable disparities in student performance, with General English evaluation marks ranging from 70–90 and lower science scores between 40–65 (Figure 1). Statistical analysis showed a weak positive correlation between the two subjects ($r = 0.3493$, $p = 0.122$) (Table 1), indicating no significant link between GE proficiency and science achievement.

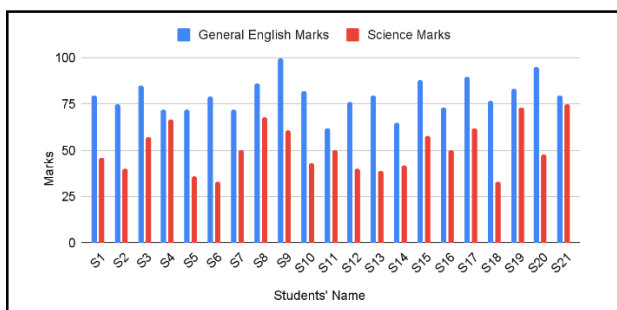


Figure 1

*Pre-Test: General English and Science Marks(L2).
Students represented as S1-S21.*

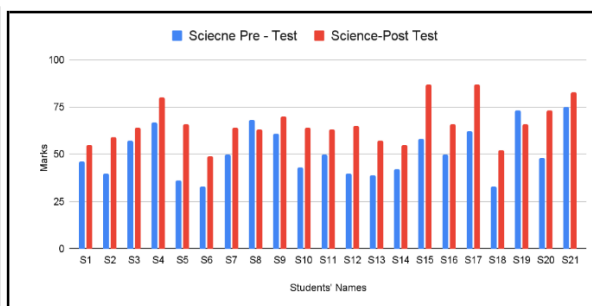


Figure 2

*Students' Science(L2) Written Test Marks
Comparison: Pre-Test and Post-Intervention Test*

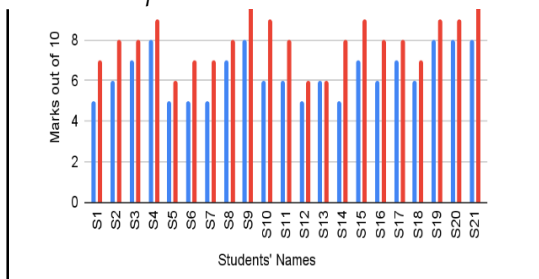


Figure 3

Science(L2) Oral Evaluation Marks Pre-Test and Post-Test.

Qualitative data supported the above findings: structured questionnaires highlighted high perceived FLCSA and limited CALP in science writing. Oral pre-tests exposed struggles with content-specific vocabulary and sentence construction, often paired with visible anxiety. Focus group discussions and classroom observations further revealed gaps in BICS, limiting interactions. A consistent theme was students' reluctance to engage with the new science teacher due to fear of making content or language mistakes. Together, these findings reveal a range of layered linguistic, affective, and psychological barriers that contribute to student reticence.

During-Intervention Test Results

During-intervention data concentrated on the effectiveness of collaborative CLIL strategies, with six codes identified through TCA and categorized into three main themes: pedagogical strategies, psychological and emotional support, and educational outcomes and effectiveness.

Pedagogical Strategies

A key theme that emerged was collaborative group work. Students demonstrated improved interaction with peers and teachers in problem-solving and presentations, particularly when tasks included novelty, cognitive challenge, and were preceded by pre-lesson activities. Enthusiasm also increased during information gap tasks, which encouraged peer communication. However, motivation declined when tasks were repetitive or lacked creativity, and when the limited resources restricted simultaneous group experimentation. As a response, subsequent lessons incorporated more authentic learning with enhanced resource allocation, including home-based equipment. The second point was language development and scaffolding. Sentence starter prompts and process diagrams helped bridge language gaps in line with CLIL principles. Notably, translanguaging, especially code-switching to L1 during metatalk, significantly enhanced comprehension and language acquisition, as seen in formative assessments. Nonetheless, some students disengaged when peers outperformed them, highlighting the need for targeted motivational strategies.

Psychological Support

A central theme was creating a supportive environment to build student confidence and reduce the fear of using L2 or anxiety. The teacher played a key role by interacting as a collaborative participant and offering consistent moral support. Code-switching to L1 was also employed strategically to address CALP gaps, helping reduce anxiety, preventing suppression of expression and feelings of alienation. Respect for student autonomy was evident as learners were permitted to switch groups upon reasonable request. Another prominent theme was motivational strategies to enhance engagement. Students responded positively when errors were addressed with constructive feedback and encouragement. Motivation was further sustained through a healthy competitive environment, where rubric scores were regularly displayed, and individualized feedback, praise, and rewards were used to foster active participation and minimize disengagement. While many students began speaking more confidently, complete comfort in using English remained challenging, although the observable signs of anxiety had noticeably declined.

Engaged Learning and Learning Outcomes

The critical aspect of this theme was engaged learning, and it was evident that students showed increased enthusiasm for collaborative group competitions through active participation, aiming to score more points on the scoreboard. Secondly, the expertise development theme highlighted progressive development from novice to expert in solving scientific problems. It was unveiled that students progressively used critical thinking and problem-solving strategies to score more points, positively impacting learning outcomes and reducing anxiety. These results show instructional effectiveness in content comprehension, cognition and language acquisition through a healthy group competition.

Post-Test Results

As illustrated in Section 4.1, the quantitative post-test confirmed significant improvement in student performance. Written science scores increased from a pre-test range of 40–65 to 60–80 (Figure 2), with a paired t-test T-value of 7.13 and $p < 0.05$ (T1) (Table 2). Similarly, oral Science presentation scores (Figure 3) showed a T-value of 9.65 (T2), also with $p < 0.05$ (Table 2), indicating a statistically significant effect on students' oral language use in L2. These

results demonstrate the intervention's positive impact on both written performance and spoken L2 fluency. Qualitative data further supported these findings. Student reflections highlighted improved L2 fluency, increased interest in science, greater willingness to collaborate, and enhanced confidence in presenting in English as perceived by them. Classroom observations confirmed higher engagement and interaction, reduced language anxiety, and improved BICS (language for learning). However, students continued to require support in forming accurate written sentences, as reflected in their grammatically flawed reflective entries. Though perceived FLCSA had declined, difficulty in accurate oral L2 usage persisted. Overall, the findings suggest the intervention effectively reduced reticence and enhanced interaction in EMI science classrooms, strengthening BE.

Conclusion and Suggestions

This study focused on BE science students' reluctance to engage in interactive learning. In direct response to the first objective, the root cause of this reticence was identified as a combination of multiple interrelated factors: insufficient CALP; limited BICS; perceived FLCSA (especially, fear of L2-related mistakes); and anxiety toward the newly assigned teacher. To address the second objective, the introduction of collaborative CLIL group activities—characterized by novelty, cognitive challenge, and pre-lesson preparation, and when combined with built-in scaffolding and translanguaging—proved most effective in promoting verbal engagement and reducing speaking anxiety, which significantly reduced reticence and improved classroom interaction. These strategies enhanced both language acquisition and subject comprehension through multimodal scaffolding. Motivational techniques further alleviated anxiety and strengthened students' confidence in oral presentations, strengthening CLIL outcomes. In contrast, tasks lacking novelty with monotony, less cognitive challenge, and insufficient resources proved less effective. The implementation and subsequent pre- and post-evaluations revealed overall efficacy as per the third objective. Despite the success, students continued to struggle with constructing accurate written and spoken L2 sentences, even though their perceived FLCSA was notably reduced. This highlights the need for continued linguistic support. As such, this study underscores the urgent need for EMI-focused teacher training, emphasizing policy reforms to embed CLIL, translanguaging, and scaffolding, aligning with NEC study findings (Wijesekera & Nanayakkara, 2024).

Limitations

The absence of a control group limited the generalizability of results. Moreover, had FLCSA been measured with a validated scale, more robust and individualized insights could have been generated, possibly improving the intervention's precision and impact. Future research should assess the long-term sustainability of improved confidence and interaction. However, embedding collaborative CLIL strategies into bilingual science classrooms offers a promising pathway to enhance student engagement, linguistic competence, and cognitive development, contributing meaningfully to the advancement of BE.

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References

- Ahmed, M. (2012). Increase students' engagement in the classroom. *IOSR Journal of Business and Management*, 6(2), 16–21. <https://doi.org/10.9790/487x-0621621>
- Anderson, B., & Fagerhaug, T. (2006). Root cause analysis [English]. In *Root Cause Analysis, Simplified Tools and Techniques* (2nd ed., pp. 11–20).
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

- Chi, M. T. H., Feltovich, P. J., & Glaser, R. (1981). Categorization and representation of physics problems by experts and novices. *Cognitive Science*, 5(2), 121–152. https://doi.org/10.1207/s15516709cog0502_2
- Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL*. <https://doi.org/10.1017/9781009024549>
- Cummins, J. (2000). *Language, Power and Pedagogy: Bilingual Children in the Crossfire*.
- De Diezmas, E. N. M. (2016). The impact of CLIL on the acquisition of L2 competences and skills in primary education. *International Journal of English Studies*, 16(2), 81. <https://doi.org/10.6018/ijes/2016/2/239611>
- Dewey, J. (1963). *Experience and education*.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- García, O. (2009). *Bilingual education in the 21st Century: A Global perspective*. Wiley-Blackwell.
- García, O., & Wei, L. (2013). Translanguaging. In *Palgrave Macmillan UK eBooks*. <https://doi.org/10.1057/9781137385765>
- González O. D. K., Molina, J. C., & Cardona, B. S. R., (2017). Project-Based Learning to Develop Oral Production in English as a Foreign Language. *International Journal of Education and Information Technologies*. 11, 87-96.
- Hardin, L. E. (2003). Problem-Solving Concepts and Theories. *Journal of Veterinary Medical Education*, 30(3), 226–229. <https://doi.org/10.3138/jvme.30.3.226>
- Held, G. (2017). *Foreign Language Anxiety and Motivation in the CLIL Classroom* (No. 840652). Ca Foscari University of Venice. <http://dspace.unive.it/bitstream/handle/10579/11789/840652-1213611.pdf?sequence=2>
- Horwid, E. K., Horwid, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125. <https://doi.org/10.2307/327317>
- Huang, Y. C. (2020). The Effects of Elementary Students' Science Learning in CLIL. *English Language Teaching*, 13(2), 1. <https://doi.org/10.5539/elt.v13n2p1>
- Ibrahim, I. S., & Adnan, N. H. (2019). Student Teams-Achievement Divisions (STAD) in Enhancing Speaking Performance among English as Second Language (ESL) Learners: A Critical Review. *Creative Education*, 10(12), 2840–2849. <https://doi.org/10.4236/ce.2019.1012210>
- Irwanthi, E. (2017). The reasons for students' reticence in English education study program. *Jurnal Pendidikan Dan Pembelajaran Untan*, 6(5).
- Krashen, S. D. (1982). *Principles and Practice in Second Language Acquisition*. Pergamon Press Inc.
- Lian, X. (2025). Fostering creative engagement: Integrating multimodal approaches to teaching English in multilingual classrooms. *Research Square (Research Square)*. <https://doi.org/10.21203/rs.3.rs-6845510/v1>
- Lim, P. T. (Ed.). (2007). *Action Research For Teachers: A Balanced Model*.
- Marnani, P. F., & Cuocci, S. (2022). *Foreign Language Anxiety: A review on theories, causes, consequences and implications for educators*. *Journal of English Learner Education*. 14(2).
- Marshall, D. F. (2000). *Using languages to learn and learning to use languages: an introduction to content and language integrated learning for parents and young people*.
- Moate, J. (2011). Reconceptualising the Role of Talk in CLIL. *Journal of Applied Language Studies*, 5(2).
- Nagodavithana, S., & Premarathne, P. (2023). Factors leading to reticence in speaking in English amongst English as a second language learners in Sri Lanka at tertiary level. *Indiana Journal of Arts & Literature*, 04(10), ISSN Online 2582-869X. <https://zenodo.org/records/10058836>
- Nuralieva, N., Wei, Z., Al-Qadri, A. H., Saraa, N., & Chang, M. (2024). Students' beliefs, basic psychological needs, classroom participation, foreign language anxiety, and academic adjustment: A correlation study in Tashkent, Uzbekistan. *Heliyon*, 10(18), e37127. <https://doi.org/10.1016/j.heliyon.2024.e37127>
- Pearson Correlation Coefficient Calculator*. (n.d.). Social Science Statistics. <https://www.socscistatistics.com/tests/pearson/default2.aspx>
- Piaget, J. (1970). *Science of Education and the psychology of the child*.
- Prabhu, N. S. (1987). *Second Language Pedagogy*. Oxford University Press, USA.

- Sameen, S., Farid, A., & Hussain, M. S. (2021). A critical discourse analysis of impact of code-switching on modern adult language learners' motivation in Pakistan. *Dil Ve Dilbilimi Çalışmaları Dergisi*, 17(1), 109–121. *Second Language Pedagogy N. S. Prabhu - Google Search*. (n.d.). <https://g.co/kgs/2W82Eiy>
- Sholeh, M. B., Nur, S., & Salija, K. (2020). Task Based Learning (TBL) in EFL Classroom: from theory to practice. *International Journal of Humanities and Innovation (IJHI)*, 3(4), 139–144. <https://doi.org/10.33750/ijhi.v3i4.97>
- Simons, M., Vanhees, C., Smits, T., & Van De Putte, K. (2019). Remediating Foreign Language Anxiety through CLIL? A mixed-methods study with pupils, teachers and parents. *Revista De Lingüística Y Lenguas Aplicadas*, 14(1), 153. <https://doi.org/10.4995/rlyla.2019.10527>
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4
- Vygotsky, L. (1978). *Mind in Society: the development of higher psychological processes*. <https://ci.nii.ac.jp/ncid/BA03570814>
- Wang, S. I. C., & Liu, E. Z. F. (2024). Validating Foreign Language classroom anxiety Scale for high school students. *International Journal of Online Pedagogy and Course Design*, 14(1), 1–15. <https://doi.org/10.4018/ijopcd.338323>
- Wei, L. (2010). Moment Analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics*, 43(5), 1222–1235.
- Wijesekera, H. (2012). *Improving product through process: Using cooperative group tasks to improve accuracy in L2 writing of ESL students* [English]. SLELTA: Sri Lanka English Teachers' Association.
- Wijesekera, H. D., Alford, J., & Mu, M. G. (2018). Forging inclusive practice in ethnically segregated school systems: lessons from one multiethnic, bilingual education classroom in Sri Lanka. *International Journal of Inclusive Education*, 23(1), 23–41. <https://doi.org/10.1080/13603116.2018.1514730>
- Wijesekera, H. D., & Nanayakkara, P. (2024). Situational Analysis of Bilingual Education Approach (English Medium Instruction) in Sri Lankan Government and Government-Assisted Schools: Towards Informed Policy Recommendations. In *National Education Commission, Sri Lanka* (ISBN 978-955-9448-20-4). National Education Commission.
- York, R. O. (2017). *Statistics for Human service evaluation*. <https://doi.org/10.4135/9781071801>