DEVELOPING A CONTEXT-SPECIFIC PROJECT-BASED FLIPPED LEARNING (PBFL) MODEL FOR ENHANCING ENGLISH SPEAKING PERFORMANCE OF FIRST-YEAR MYANMAR UNIVERSITY STUDENTS

SU LAI MON

DOCTOR OF PHILOSOPHY

IN

ENGLISH FOR PROFESSIONAL DEVELOPMENT

SCHOOL OF LIBERAL ARTS

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THIS DISSERTAION IS A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ENGLISH FOR PROFESSIONAL DEVELOPMENT

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DISSERTATION APPROVAL
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Dissertation Title : Developing a Context-specific Project-based Flipped Learning (PBFL) Model for Enhancing English Speaking Performance of First-year Myanmar University Students

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Su Lai Mon

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ABSTRACT

This study aimed to develop and examine the effectiveness of a context-specific Project-Based Flipped Learning (PBFL) model for enhancing the English speaking performance of first-year Myanmar university students at a private university in Myanmar. The model was designed by integrating principles of flipped learning and project-based learning to address contextual challenges identified through needs analysis, including teacher-centered instruction, limited opportunities for communicative practice, exam-oriented teaching approaches, and underutilization of instructional technology.

A mixed-methods research design was employed. The participants consisted of 40 first-year Bachelor of Business Administration (BBA) students enrolled in the English for Communication I course, selected through purposive sampling. Quantitative data were collected using pre-test and post-test speaking assessments adapted from an IELTS-format speaking test, comprising three components: Interview, Long Turn, and Discussion. Speaking performances were evaluated using an analytic scoring rubric measuring fluency and coherence, grammatical accuracy, pronunciation, lexical resource, and interaction. Two trained raters independently assessed the performances, and inter-rater reliability was established prior to analysis. Qualitative data were obtained through semi-structured interviews with one English instructor and ten students representing different proficiency levels. The PBFL model and research instruments were validated by three experts using the Index of Item-Objective Congruence (IOC), with values ranging from 0.67 to 1.00 following revision. The intervention was implemented over a

ten-week period. Paired-samples t-test analysis revealed statistically significant improvement in overall speaking performance ($p < .05$). The mean total speaking score increased from 13.85 (SD = 0.63) in the pre-test to 19.52 (SD = 0.57) in the post-test. Improvements were observed across all assessed components, with large effect sizes (Cohen's d ranging from 1.81 to 2.03). Qualitative findings indicated that students reported increased confidence, reduced speaking anxiety, and greater participation in classroom communication activities. The instructor also perceived the model as feasible within existing institutional constraints. The findings suggest that the context-specific PBFL model may be useful in enhancing English speaking performance among Myanmar university students in private higher education settings.

Keywords: Project-based Flipped Learning, English Speaking Ability, Myanmar Higher Education

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ABBREVIATION AND SYMBOL

CEFR	Common European Framework of Reference for Languages
EFL	English as a Foreign Language
ESL	English as a Second Language
FGD	Focus Group Discussion
Fig.	Figure
FL	Flipped Learning
ICT	Information and Communication Technology
L2	Second Language
M	Mean
MOE	Ministry of Education
N	Number of Participants
p	Probability Value (Significance Level)
PBL	Project-Based Learning
PBFL	Project-Based Flipped Learning
RQs	Research Questions
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
σ	Population Standard Deviation
t	t-test Value
%	Percentage
μ	Population Mean

CHAPTER 1

INTRODUCTION

1.1 Rationale of the Study

English is widely recognized as an important international language for communication, trade, and education (Crystal, 2003; Graddol, 2006). In an increasingly interconnected world, proficiency in English has become a valuable skill for individuals participating in academic and professional contexts (Jenkins, 2009). Within higher education, English serves as a medium for accessing academic literature, research, and global knowledge networks (Seidlhofer, 2011). Therefore, the ability to communicate effectively in English, particularly through speaking, is considered an essential component of academic success.

In Myanmar's higher education context, English is taught as a Foreign Language (EFL) and plays a significant role in university curricula. However, English language instruction continues to face several challenges influenced by cultural, linguistic, and pedagogical factors (Canagarajah, 2006). Although national education policies emphasize communicative competence and global integration (Aye & Win, 2020), a gap remains between policy intentions and classroom implementation, particularly at the tertiary level. In many universities, traditional instructional approaches persist, characterized by teacher-centered pedagogy, examination-oriented assessment, and limited opportunities for interactive speaking practice.

Existing instructional practices often emphasize grammar and vocabulary knowledge rather than communicative use of language (Kyaw, 2019). As a result, many Myanmar university students demonstrate limited confidence and fluency in spoken English, which may affect their participation in academic discussions and collaborative learning activities (Aye & Win, 2020). These conditions highlight the need for instructional approaches that create structured opportunities for meaningful speaking practice.

These national challenges are also reflected in many private universities in Myanmar. Although private institutions may have relatively better access to technological resources and smaller class sizes compared with public universities, instructional practices often remain influenced by traditional teaching approaches. At the private university where this study was conducted, many first-year students demonstrate limited confidence and fluency in spoken English despite having studied the language for many years. Classroom instruction often emphasizes textbook-based learning and written assessments, resulting in limited opportunities for extended oral communication. Consequently, there is a need to explore instructional approaches that promote active speaking practice in this specific institutional context.

The increasing availability of educational technology in some private higher education institutions presents opportunities to enhance English language instruction. Technology integration in language learning has been associated with increased access to authentic materials, flexible learning opportunities, and interactive learning environments (Bates, 2015; Dudeney & Hockly, 2012). However, the effective use of technology depends on pedagogical design rather than the mere availability of digital tools. Without appropriate instructional frameworks, technological resources may remain underutilized in supporting students' communicative competence.

Project-Based Learning (PBL) has been widely recognized as a learner-centered approach that encourages students to engage in meaningful tasks, collaborate with peers, and apply knowledge in practical contexts (Thomas, 2000). Through project-based activities such as presentations, discussions, and problem-solving tasks, students may have increased opportunities to practice speaking in authentic situations. Similarly, Flipped Learning (FL) reorganizes the traditional learning sequence by delivering instructional content outside the classroom, allowing class time to be used for interactive and applied learning activities (Bergmann & Sams, 2012). Research suggests that flipped learning can increase student engagement and promote more active classroom interaction (Bishop & Verleger, 2013).

Integrating PBL and FL into a Project-Based Flipped Learning (PBFL) framework may provide a structured approach to addressing these challenges. In this model, students engage with instructional materials prior to class to develop foundational knowledge and cognitive readiness. Classroom sessions are then devoted

to collaborative, project-based speaking activities that promote communicative interaction and practical language use. Additionally, reflective activities such as peer feedback and self-evaluation allow students to review their speaking performance and identify areas for improvement.

The PBFL model in this study is based on a learning mechanism consisting of three stages. First, pre-class flipped learning activities provide students with cognitive readiness by allowing them to review instructional videos, vocabulary explanations, and example conversations before attending class. Second, in-class project-based activities encourage communicative output through group discussions, problem-solving tasks, and oral presentations. Third, reflection activities enable students to analyze their speaking performance and improve their communication skills. Through these stages, the PBFL model aims to create a structured learning process that supports the development of English speaking proficiency.

Although previous studies have discussed challenges in English language education in Myanmar, limited research has systematically examined instructional interventions designed specifically to improve university students' speaking performance. Furthermore, few studies have explored the integration of flipped learning and project-based learning within the Myanmar EFL context. Therefore, developing and examining a context-specific PBFL model may contribute valuable empirical evidence regarding effective instructional approaches for improving English speaking performance in Myanmar's higher education environment.

Therefore, this study was conducted to develop and examine a PBFL model aimed at enhancing the English speaking performance of first-year Myanmar university students in a private university setting. These students are generally at a lower-intermediate level of English proficiency, with limited experience in using English for extended oral communication. Although previous studies have discussed challenges in English language education in Myanmar, there is a lack of empirical evidence regarding how English speaking performance is systematically assessed in university classrooms and whether instructional interventions targeting speaking skills have been effectively implemented and evaluated. In particular, limited research has examined the integration of flipped learning and project-based learning within the Myanmar EFL context as a structured instructional approach. This study addresses this gap by developing and

evaluating a context-specific Project-Based Flipped Learning (PBFL) model designed to enhance students' English speaking performance. Therefore, this study was conducted to develop and examine a PBFL model aimed at improving the English speaking performance of first-year Myanmar university students in a private university setting.

1.2 Statement of the Problem

In Myanmar, many challenges in the EFL context hinder effective language instruction and learning. Despite English language being a compulsory subject from primary through high school, many students complete years of formal instruction without the confidence or competence to communicate effectively in spoken English. This deficiency is also evident among first-year students at private universities, where large class sizes and teacher-centered approaches limit opportunities for meaningful oral practice, despite students' prior exposure to English in secondary education (Kyaw, 2019; Aye & Win, 2020).

A major contributing factor is the continued reliance on traditional instructional methods. Classroom instruction often emphasizes grammar translation, memorization-based strategies, and examination-oriented assessments, prioritizing written performance over communicative competence. Consequently, students have minimal chances to actively participate, collaborate with peers, or engage in inquiry-based tasks. Individual student factors, such as shyness, anxiety, and limited exposure to English-speaking environments, further restrict opportunities for authentic oral communication (Kayi, 2006; Ireland & Benthuysen, 2015).

In many Myanmar universities, students' speaking performance is commonly assessed through informal classroom activities such as short presentations or oral participation, with limited use of standardized or analytic speaking rubrics. In addition, there is limited documented evidence of systematic instructional interventions specifically designed to improve speaking proficiency at the tertiary level. This lack of structured assessment and intervention highlights the need for a clearly designed and evaluated instructional model to support the development of students' speaking performance.

Although some private universities in Myanmar have introduced digital learning resources and internet access, these technologies are often underutilized for communicative purposes. Teachers may lack structured pedagogical frameworks or confidence to integrate technology into interactive speaking tasks, leaving students with limited opportunities to practice English in authentic, collaborative settings. Thus, while technology has potential to support language learning, its current use does not fully enhance students' speaking skills (Khaing et al., 2018).

To address these challenges, there is a need for innovative, learner-centered instructional approaches that promote active speaking practice, meaningful communication, and effective use of technology. The PBFL model offers a potential solution by combining pre-class flipped learning activities with in-class project-based speaking tasks and reflective exercises. Pre-class activities develop students' cognitive readiness, in-class projects encourage collaborative communicative output, and reflection supports self-assessment and skill improvement. By structuring the use of technology and learning activities in this way, the PBFL model aims to enhance English speaking performance and overcome the limitations of traditional, teacher-centered instruction in Myanmar's private university context. Moreover, the model addresses a critical research gap, as few studies have systematically examined integrated flipped and project-based approaches for improving university students' speaking performance in Myanmar.

1.3 Research Objectives

The main proposes of this study were:

1. To identify the current state and problems related to English speaking skill development among Myanmar university students.
2. To systematically develop a PBFL model through needs analysis, theoretical design, expert validation, and revision to enhance students' English speaking performance.
3. To examine the effectiveness of the developed PBFL model in enhancing students' English speaking performance.

4. To determine students' perceptions of the PBFL model as a tool for improving their English speaking performance.

1.4 Research Questions

The research questions of this study were:

1. What are the existing challenges and current state of English speaking instruction among Myanmar university students?

2. How can a PBFL model be systematically developed through needs analysis, theoretical design, expert validation, and revision to address the speaking needs of Myanmar university students?

3. To what extent is the PBFL model effective in improving English speaking performance among Myanmar university students?

4. What are students' perceptions of the PBFL model in relation to its impact on their English speaking performance?

1.5 Significance of the Study

This study is expected to contribute to several stakeholders in the field of English language education. For educators, the study provides practical insights into how the PBFL model can be implemented to create more interactive and student-centered learning environments that promote speaking practice. For educational institutions and policymakers, the findings may offer evidence-based guidance for integrating innovative teaching approaches that support the development of communicative competence and digital literacy among students.

For students, the PBFL model has the potential to provide opportunities for meaningful communication, enhance confidence in speaking English, and improve participation in academic discussions and presentations. Furthermore, the study contributes to the existing body of knowledge on technology-enhanced language learning by examining the integration of flipped learning and project-based learning in a Myanmar EFL context. The findings may also provide a reference for future research

exploring effective instructional models for improving speaking skills in similar educational environments.

1.6 Scope and Limitations of the Study

This study focused on the development and implementation of a PBFL model designed to enhance English speaking performance among Myanmar university students. The participants consisted of 40 first-year students enrolled in the Bachelor of Business Administration program at a private university in Myanmar.

A one-group pretest-posttest research design was used to examine changes in students' speaking performance before and after the implementation of the PBFL model. The intervention was conducted over one academic semester. Students completed a speaking pretest at the beginning of the study, participated in PBFL-based learning activities throughout the semester, and completed a speaking posttest at the end of the intervention.

The scope of the study was limited to first-year students at a single private university in Myanmar. Therefore, the findings should be interpreted within this specific institutional context and may not be generalized to all universities or educational levels. In addition, the study employed a one-group pretest–posttest design without a control group. As a result, improvements in students' speaking performance should be interpreted cautiously, as other factors may have influenced the results. Despite these limitations, the study provides valuable insights into the feasibility and potential effectiveness of implementing a PBFL model in a Myanmar EFL classroom.

The scope of the study was limited to first-year students at a single private university in Myanmar. Therefore, the findings should be interpreted within this specific institutional context and may not be generalized to all universities or educational levels. In addition, the use of a one-group pretest-posttest design without a control group limits the ability to attribute improvements solely to the PBFL model, as other external factors may have influenced the results. These limitations suggest that the findings should be interpreted as indicative of the potential effectiveness and feasibility of the PBFL model rather than as definitive causal evidence.

1.7 Definition of Key Terms

1.7.1. Project-Based Flipped Learning (PBFL): An instructional approach that integrates Project-Based Learning (PBL) and Flipped Learning (FL) principles (Thomas, 2000; Bergmann & Sams, 2012). In this study, PBFL was implemented by having students engage with instructional videos, vocabulary explanations, and example conversations before class (pre-class stage), participate in collaborative project-based speaking tasks such as group discussions, problem-solving activities, and oral presentations during class (in-class stage), and reflect on their performance through peer feedback and self-assessment (reflection stage).

1.7.2 Flipped Learning (FL): A pedagogical approach that reverses the traditional learning sequence by delivering instructional content outside the classroom, often via videos or digital materials, and using class time for interactive, student-centered activities such as discussions, problem-solving, and collaborative tasks (Bergmann & Sams, 2012; Bishop & Verleger, 2013). In this study, FL was operationalized by assigning pre-class video lessons and exercises to prepare students for active participation in speaking-focused class activities.

1.7.3 Project-Based Learning (PBL): An instructional method where students learn by actively engaging in real-world and meaningful projects (Thomas, 2000; Prince, 2004). In this study, PBL involved collaborative speaking tasks, including oral presentations, debates, and problem-solving activities, designed to enhance students' English communication skills in authentic contexts.

1.7.4 Speaking Performance: The capacity to express thoughts, ideas, and information orally in English, encompassing fluency, pronunciation, vocabulary usage, grammatical accuracy, and interactive communication skills such as turn-taking, initiating dialogue, and responding appropriately (Zaremba, 2006). In this study, speaking abilities were measured through pretest–posttest evaluations of students' oral performance during classroom projects and presentations.

1.7.5 Student Perception: The degree to which students view the PBFL model as beneficial for developing their speaking skills (Creswell, 2014). In this study, student perception was assessed by questionnaires and open-ended feedback regarding their

engagement, motivation, and perceived improvement in English speaking during the PBFL intervention.

1.7.6 Myanmar Students: Individuals enrolled in higher education institutions in Myanmar. In this study, the term specifically refers to first-year students in the Bachelor of Business Administration program at a private university in Yangon who participated in the PBFL-based learning activities.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a critical review of literature related to Project-Based Flipped Learning (PBFL) and its role in enhancing English speaking skills, with a focus on the Myanmar higher education context. It examines relevant theories, instructional models, and empirical studies associated with flipped learning, project-based learning, and technology-supported language instruction. By synthesizing these perspectives, the chapter identifies both opportunities and challenges for developing speaking abilities in EFL settings.

The chapter further analyzes contemporary instructional approaches that promote communicative competence and student-centered learning. Special attention is given to the integration of flipped learning and project-based learning within a structured instructional design framework. Insights from this literature review inform the development of the PBFL instructional model employed in this study. In particular, it identifies key factors influencing English speaking development and demonstrates how PBFL can address common limitations in traditional, teacher-centered instruction. Consequently, this review provides both the theoretical and pedagogical foundation for the conceptual framework and the PBFL model design implemented in this research.

2.1 The Importance of English Language in EFL Context

English serves as a critical global lingua franca, enabling communication across cultural and linguistic boundaries and facilitating engagement in education, trade, and technological exchange (Seidlhofer, 2011). For learners in EFL contexts, proficiency in English broadens opportunities for higher education, career advancement, and intercultural interaction. As Graddol (2006) emphasizes, effective English communication increasingly determines access to global knowledge networks and professional mobility.

Within language education, speaking is widely recognized as a key indicator of communicative competence. Effective oral communication requires not only grammatical and lexical knowledge but also the ability to use language meaningfully in authentic situations (Richards & Rodgers, 2014). Instructional approaches that emphasize interaction, collaboration, and purposeful communication are therefore particularly important for developing speaking proficiency among EFL learners.

The growing influence of globalization and digital technologies has further amplified the role of English proficiency. English dominates scientific publications, digital media, international communication, and online learning platforms, providing learners with access to global knowledge and professional networks (Crystal, 2012). Students with strong English skills are thus better positioned to participate in international communities, academic discussions, and professional exchanges.

Despite this, EFL learners in many Asian contexts, including Myanmar, often face limited opportunities for authentic communication outside the classroom. Kirkpatrick (2012) notes that traditional instruction frequently prioritizes grammar instruction and exam preparation over meaningful interaction. As a result, students may acquire theoretical knowledge of vocabulary and grammar but lack confidence or fluency in real-life communication.

To address these limitations, learner-centered and innovative instructional approaches have been recommended. Project-Based Learning (PBL) engages students in authentic tasks that require collaboration and application of knowledge, while Flipped Learning (FL) shifts foundational content delivery to pre-class digital activities, freeing class time for interactive engagement (Thomas, 2000; Bergmann & Sams, 2012). Integrating PBL and FL in a Project-Based Flipped Learning (PBFL) framework combines the strengths of both approaches, providing students with structured pre-class preparation and collaborative, communicative in-class experiences.

The PBFL approach not only enhances linguistic development but also supports essential 21st-century skills such as critical thinking, collaboration, and effective communication. By combining pre-class cognitive preparation with in-class project-based tasks, PBFL creates repeated opportunities for students to practice speaking in meaningful contexts, receive feedback, and reflect on their performance.

In conclusion, English proficiency is crucial for global communication, access to knowledge, and professional development. Implementing innovative pedagogical models such as PBFL can help EFL learners overcome speaking barriers, build confidence, and develop more effective communicative competence.

English Language in Myanmar

English proficiency has become increasingly important in Myanmar, particularly in professional, economic, and educational sectors where effective communication skills are highly valued. Individuals with strong English speaking abilities often have greater access to employment opportunities, higher income potential, and enhanced professional development, as oral communication is closely linked to workplace competence (Khin, 2018; Aye & Win, 2020). For many young Myanmar learners, English proficiency also facilitates opportunities for international education, global employment, and cross-cultural engagement (Mar, 2010).

Despite its recognized importance, many Myanmar students encounter significant challenges in developing speaking proficiency. Factors such as language anxiety, low self-confidence, and fear of making mistakes often discourage active participation in speaking activities (Xinghua, 2007; Ven, Kanokkamalade, & Khanetnog, 2021). Limited exposure to authentic English communication outside the classroom further restricts students' opportunities to engage in real-life interactions, resulting in gaps between theoretical knowledge and practical speaking ability.

Traditional teaching methods remain prevalent, emphasizing grammar memorization and teacher-centered instruction. While these methods may support knowledge of grammatical structures, they typically provide minimal opportunities for meaningful communication, collaboration, or problem-solving in English. Consequently, many students possess sufficient linguistic knowledge but struggle to express their ideas confidently or fluently in spoken interactions.

To address these challenges, interactive and student-centered instructional approaches are essential in the Myanmar EFL context. Approaches that promote collaborative learning, authentic communication tasks, and the use of technology can create structured opportunities for speaking practice. PBL engages learners in real-world tasks that require discussion, problem-solving, and presentations,

while FL enables students to acquire foundational knowledge prior to class through digital resources, thereby freeing classroom time for applied and interactive learning.

Integrating these approaches through a PBFL model provides a systematic strategy to overcome limitations of traditional instruction. PBFL encourages pre-class preparation of content, followed by collaborative, project-based speaking tasks during class, and reflective exercises afterward. This structure supports communicative output, confidence building, and active participation, enhancing students' willingness and ability to speak English.

Given these educational challenges and the potential of learner-centered approaches, exploring innovative models such as PBFL is particularly relevant in Myanmar. Implementing such models addresses critical gaps in speaking proficiency and provides educators and policymakers with evidence-based strategies for improving students' communicative competence.

2.2 English Language throughout Technological Advancements

In the era of rapid technological development, English has increasingly become a central language for global communication. Digital technologies have transformed how individuals exchange information, collaborate, and participate in networks across geographical and linguistic boundaries. Within these digital spaces, English functions as a global lingua franca, enabling communication through social media, online messaging platforms, virtual collaboration tools, and international professional networks (Crystal, 2003). Consequently, proficiency in English allows learners to access global knowledge, participate in cross-cultural communication, and engage in online learning environments effectively.

Technological development has also reshaped educational practices, creating opportunities to expand learning beyond traditional classrooms. English proficiency is essential for accessing online resources, participating in virtual learning, and engaging with international academic communities where English is the primary medium of instruction (Warschauer, 2004). Platforms such as MOOCs, video conferencing tools, and language learning applications offer authentic and flexible opportunities for

learners to develop skills in listening, speaking, and interaction (Levy & Stockwell, 2006). These tools support communicative practice in ways that conventional classrooms often cannot, especially in EFL contexts.

Similarly, in professional and business settings, English is the primary medium for global trade and workplace communication. Multinational corporations rely on English-based digital tools such as emails, video conferences, and messaging systems to maintain coordination and professional relationships internationally (Graddol, 2006). Therefore, combining English proficiency with digital literacy provides learners with competitive advantages in the global workforce.

Technological advances have also influenced language use itself. Online communication has introduced new linguistic forms, informal conventions, abbreviations, and multimodal modes combining text, images, and video (Thurlow & Mroczed, 2011). Such practices create opportunities for authentic language exposure and communicative fluency. However, challenges remain: unequal access to technology and digital literacy gaps may limit the benefits of these opportunities, particularly for students from under-resourced communities (Pennycook, 2012).

To maximize these opportunities, English language instruction must integrate technology purposefully. Pedagogical approaches such as FL and PBL leverage digital tools to promote independent learning, collaborative engagement, and meaningful communicative practice. FL enables learners to acquire foundational knowledge outside the classroom, while PBL engages students in collaborative tasks that require discussion, problem-solving, and presentations. When combined in a PBFL model, technology facilitates both pre-class preparation and in-class interactive activities, creating structured opportunities for students to develop English speaking proficiency and 21st-century competencies, including collaboration, critical thinking, and communication.

English Language and Technological Advancements in Myanmar

In Myanmar, English proficiency has gained increasing importance alongside technological development and global connectivity. Proficiency enables learners to access digital information, engage in online learning, and participate in international knowledge networks (Wesche & Nikitina, 2017). English also supports economic activities such as international trade, tourism, and foreign investment, which contribute

to national development (Graddol, 2006). Consequently, enhancing English proficiency has become a priority for learners seeking career advancement and for policymakers promoting global competitiveness.

Technology-enhanced language learning offers practical opportunities for improving English speaking abilities. Digital platforms language learning applications, online discussion forums, and virtual classrooms allow learners to interact with peers and instructors while accessing authentic materials (Chapelle, 2001). Such environments encourage real-time communication, collaborative problem-solving, and multimedia presentations, promoting active engagement compared with traditional teacher-centered instruction.

However, several challenges impede effective integration of technology in Myanmar. Unequal access to digital resources, limited technological infrastructure, and insufficient teacher training reduce the effectiveness of technology-supported learning (Pennycook, 2017). Students in rural or low-income areas may lack reliable internet connectivity or devices, and some learners experience anxiety or low confidence when participating in online speaking activities. These factors can limit both willingness to communicate and overall speaking development.

Addressing these challenges requires structured, learner-centered pedagogical approaches. A PBFL model provides a balanced framework by combining pre-class digital learning with collaborative in-class speaking projects. Pre-class engagement with digital materials allows students to develop foundational knowledge independently, while in-class project-based activities foster authentic communication, problem-solving, and oral presentation skills. Reflective exercises, including peer and self-assessment, further support skill development and confidence in speaking.

In conclusion, integrating English language learning with technological advancement offers significant opportunities for students in Myanmar. Realizing these benefits requires thoughtful instructional design, equitable access to technology, and student-centered approaches. PBFL provides a structured mechanism to enhance both speaking proficiency and digital literacy, preparing learners to participate effectively in a globalized and technologically mediated environment.

2.3 English Language Learning and Important Skills : 3Cs (Communication, Collaboration, and Critical Thinking)

In contemporary education, English language learning plays an essential role in preparing students to participate effectively in a globalized society. As the dominant international language used in diplomacy, education, business, and digital communication, English enables learners to access global knowledge networks and engage with diverse communities (Crystal, 2003; Graddol, 2006). Through English language education, students gain not only linguistic competence but also intercultural communication abilities that are essential for academic and professional success (Warschauer, 2004).

In addition to language proficiency, modern educational frameworks emphasize the development of essential 21st-century competencies. Among these competencies, communication, collaboration, and critical thinking—often referred to as the 3Cs—are considered fundamental skills that support effective learning and problem-solving in complex environments (Cummins, 2009). Communication skills enable learners to express ideas clearly and interact effectively with others in various social and professional contexts. Collaboration skills support teamwork, shared responsibility, and cooperative problem solving among learners working toward common goals (Voogt & Roblin, 2012). Meanwhile, critical thinking skills enable students to analyze information, evaluate alternative perspectives, and make informed decisions (Tsui, 2002). When integrated into English language instruction, these competencies enhance students' ability to use the language meaningfully while simultaneously strengthening higher-order thinking skills.

In the context of English speaking development, the 3Cs are particularly important. Effective speaking requires learners to communicate ideas clearly, collaborate with others during discussions or group tasks, and think critically when responding to questions or presenting arguments. Therefore, integrating the 3Cs into language instruction helps learners move beyond memorization toward meaningful language use in authentic communication situations.

However, in Myanmar's EFL classrooms, the development of these competencies often faces several challenges. Traditional teaching approaches frequently emphasize grammar instruction and rote memorization, which may limit opportunities for meaningful communication, collaborative learning, and critical thinking activities (Aye & Win, 2020). As a result, students may have limited confidence in speaking English or participating actively in classroom discussions (Xinghua, 2007). These instructional limitations highlight the need for pedagogical approaches that promote interaction, engagement, and authentic language use.

Technology-supported learning environments can help address these challenges by providing more interactive and collaborative opportunities for students. Digital platforms, such as online discussion forums, collaborative documents, and multimedia presentation tools, allow learners to engage in communication and teamwork while practicing English in authentic contexts (Levy & Stockwell, 2006; Chapelle, 2001). These tools also support reflective thinking and peer feedback, which contribute to the development of critical thinking skills.

Innovative instructional approaches such as PBL and FL have been widely recognized for their potential to promote the 3Cs within language learning environments. PBL engages students in authentic projects that require investigation, problem solving, and collaborative decision-making, thereby encouraging active communication and teamwork (Bell, 2010; Thomas, 2000). Similarly, FL allows students to access instructional materials prior to class, often through videos or online resources, enabling classroom time to be used for interactive learning activities and collaborative discussions (Bergmann & Sams, 2012).

When these approaches are integrated within a structured learning model, they can effectively support both language development and 21st-century skill acquisition. By combining pre-class preparation with collaborative project-based tasks, students can apply language knowledge in communicative contexts while developing communication, collaboration, and critical thinking skills. These competencies are therefore considered important learning outcomes within the PBFL model developed in this study.

Learning Theories: Constructivism and Sociocultural Theory

Learning theories provide an important foundation for understanding how students acquire knowledge and develop skills. Constructivist learning theory, proposed by Piaget (1970), suggests that learners actively construct knowledge through interaction with their environment and by integrating new information with prior experiences. From this perspective, learning occurs most effectively when students are actively engaged in meaningful tasks that require exploration, reflection, and application of knowledge. Constructivist principles therefore support learner-centered instructional approaches in which students participate actively in their own learning processes.

Complementing this perspective, Vygotsky's Sociocultural Theory (1978) emphasizes that learning is fundamentally a social process that occurs through interaction with others. According to this theory, cognitive development is facilitated through collaborative activities and guided support from more knowledgeable individuals, such as teachers or peers. Two key concepts within sociocultural theory are the Zone of Proximal Development (ZPD) and scaffolding. The ZPD refers to the difference between what learners can accomplish independently and what they can achieve with guidance, while scaffolding refers to the temporary support provided to help learners complete more complex tasks.

In English language learning contexts, these theoretical perspectives highlight the importance of interaction, collaboration, and guided practice. Classroom activities that encourage discussion, peer feedback, and collaborative problem-solving allow learners to negotiate meaning and develop communication skills. These theoretical principles therefore support instructional models that emphasize active learning, collaboration, and authentic communication tasks.

Within the PBFL model developed in this study, constructivist and sociocultural principles provide the theoretical foundation for designing collaborative learning activities. Through project-based tasks and guided interaction, students are encouraged to construct knowledge, communicate ideas, and develop critical thinking skills while practicing English in meaningful contexts.

Innovative Approaches: PBL and FL

Building on the theoretical foundations of constructivism and sociocultural theory, innovative pedagogical approaches such as Project-Based Learning (PBL) and Flipped Learning (FL) have gained increasing attention in language education. These approaches emphasize active participation, collaborative learning, and authentic communication tasks.

Project-Based Learning encourages students to engage in extended tasks that require investigation, collaboration, and the creation of meaningful products or presentations. Through these projects, students communicate ideas, negotiate solutions, and work together to achieve shared learning goals (Bell, 2010; Thomas, 2000). Such activities provide opportunities for learners to practice speaking skills in authentic contexts while also developing collaboration and critical thinking abilities.

Flipped Learning, on the other hand, restructures traditional instructional processes by shifting initial knowledge acquisition outside the classroom. Students engage with instructional materials, such as recorded lectures or online resources, before attending class (Bergmann & Sams, 2012). Classroom time can then be devoted to interactive activities, discussion, and collaborative tasks that encourage deeper understanding and practical application of knowledge.

When used together, PBL and FL create a complementary instructional environment in which students first acquire foundational knowledge independently and then apply that knowledge collaboratively through meaningful projects. This combination allows classroom time to be used more effectively for communication practice, peer interaction, and problem-solving activities. These characteristics make the integration of PBL and FL particularly suitable for developing English speaking skills and 21st-century competencies.

Summary

The integration of constructivist and sociocultural learning principles with learner-centered instructional approaches such as Project-Based Learning and Flipped Learning provides a strong theoretical foundation for enhancing English language learning. These approaches promote active participation, collaborative interaction, and meaningful communication, which are essential for developing both linguistic competence and 21st-century skills.

By engaging learners in collaborative projects supported by pre-class preparation and technology-enhanced resources, students can strengthen communication, collaboration, and critical thinking while practicing English in authentic contexts. These competencies are therefore considered key learning outcomes within the Project-Based Flipped Learning model proposed in this study, which aims to enhance students' English speaking abilities in the Myanmar EFL context.

2.4 Importance of English Speaking Skills in ELT

Speaking is widely recognized as one of the most essential macro skills in language learning, particularly for effective communication in a second or foreign language. In English Language Teaching (ELT), speaking enables learners to express ideas, share information, and interact with others in real-time communication. As English functions as a global lingua franca in international education, business, and digital communication, the ability to speak English effectively has become increasingly important for individuals seeking to participate in global communities (Boonkit, 2010).

Among the four fundamental language skills, listening, speaking, reading, and writing, speaking is often regarded as the most immediate and interactive form of communication. While reading and listening are considered receptive skills, speaking and writing are productive skills that require learners to actively generate language (Zaremba, 2006). Speaking, in particular, demands the simultaneous use of linguistic knowledge, communication strategies, and social interaction skills, making it a complex but critical component of language proficiency.

Strong speaking skills also play an important role in academic and professional success. Effective oral communication is required in a variety of contexts, including classroom discussions, presentations, job interviews, workplace training, and professional meetings (Osborn, Osborn, & Osborn, 2008). In many professional settings, communication skills are often considered as important as academic qualifications or technical expertise. Research indicates that employers frequently prioritize speaking and communication abilities when evaluating potential employees (Zaremba, 2006).

Despite its importance, many English language learners have limited opportunities to practice speaking outside the classroom. In EFL contexts, students may rarely interact with native speakers or participate in authentic communication situations (Zhang, 2009). Consequently, learners often develop knowledge of grammar and vocabulary without gaining sufficient confidence or fluency in spoken communication.

For this reason, English language teachers play a crucial role in designing instructional activities that provide learners with meaningful opportunities to practice speaking. Interactive learning environments that encourage discussion, collaboration, and problem-solving can help students develop both linguistic competence and communication confidence. Instructional approaches that emphasize active participation, such as project-based learning and collaborative tasks, are therefore considered particularly valuable for improving speaking proficiency.

In addition, speaking activities often involve important 21st-century competencies such as communication, collaboration, and critical thinking. When learners participate in discussions, presentations, or group projects, they must communicate ideas clearly, work collaboratively with peers, and evaluate information critically. Therefore, integrating these competencies within English speaking instruction can enhance both language development and broader learning outcomes.

English Speaking Skills in EFL Context

In English as a Foreign Language (EFL) environments, speaking skills are particularly important because learners often rely on classroom instruction as their primary opportunity for communication practice. As English serves as a global language used in academic, professional, and intercultural communication, individuals from non-English-speaking countries require strong spoken language abilities to interact effectively in international contexts (Seidlhofer, 2011).

Developing speaking proficiency contributes not only to language competence but also to learners' confidence and willingness to communicate. Students who are able to express ideas clearly in English are more likely to participate actively in classroom discussions, academic presentations, and collaborative learning activities. In addition, effective spoken communication supports professional success in many industries where English is used as the working language (Graddol, 2006).

To support speaking development in EFL contexts, educators must adopt communicative and interactive teaching approaches that emphasize meaningful language use rather than memorization of grammatical structures. Communicative Language Teaching and task-based learning approaches encourage learners to engage in real-life communication tasks, allowing them to practice speaking while solving problems, sharing ideas, and negotiating meaning (Richards & Rodgers, 2014). Such approaches help learners develop both linguistic accuracy and communicative fluency.

Therefore, strengthening English speaking instruction in EFL environments requires teaching strategies that promote active engagement, collaboration, and authentic communication practice. Instructional models that combine technology, collaborative learning, and real-world tasks may provide particularly effective opportunities for developing speaking skills.

English Speaking Skills in Myanmar Context

In Myanmar, English speaking proficiency has become increasingly important as the country continues to expand its engagement with global economic, educational, and cultural networks. Proficient spoken English enables individuals to participate in international communication, tourism, business transactions, and cross-cultural interactions (Crystal, 2003; Graddol, 2006). Within the education sector, English fluency also provides students with access to international academic resources and opportunities for higher education abroad, allowing them to compete in global learning environments (Warschauer, 2004).

Additionally, the growing presence of multinational companies and international organizations in Myanmar has increased the demand for a workforce with strong English communication skills (Seidlhofer, 2011). Individuals who are able to communicate effectively in English are therefore more likely to access employment opportunities and participate in global professional networks.

Despite these growing demands, many students in Myanmar still face challenges in developing speaking proficiency. Traditional classroom instruction often emphasizes grammar-focused learning and examination preparation, which may limit opportunities for interactive communication practice. As a result, learners may possess theoretical knowledge of English but lack confidence and fluency in spoken communication.

To address these challenges, English language instruction in Myanmar must incorporate more interactive and learner-centered teaching approaches that encourage active participation and communication practice. Speaking activities that involve discussion, presentations, and collaborative problem-solving can help students build confidence and improve their ability to express ideas in English.

Furthermore, integrating technology-supported learning environments can provide additional opportunities for students to practice communication and engage with authentic language resources (Levy & Stockwell, 2006). By combining communicative teaching methods with collaborative learning activities and digital tools, educators can create more dynamic learning environments that support the development of speaking proficiency.

Therefore, prioritizing the development of English speaking skills, together with essential 21st-century competencies such as communication, collaboration, and critical thinking, is essential for preparing Myanmar students to succeed in both local and global contexts.

2.5 PBL and FL Models in EFL Context

In the EFL context, selecting effective instructional approaches is crucial to improving students' language proficiency, especially speaking skills. Traditional lecture-based teaching often limits real communication practice, because learners become passive recipients rather than active language users (Bligh, 2000; Prince, 2004). In response, educators are increasingly adopting innovative, learner-centered methodologies that provide students with meaningful opportunities to use English in authentic situations. Two of the most prominent approaches are PBL and FL model, both of which emphasize active engagement and practical language application. These models support communicative learning environments, enabling EFL learners to develop stronger speaking abilities through collaboration, problem-solving, and interactive participation.

Project-based Learning (PBL)

Project-Based Learning (PBL) is an effective pedagogical strategy that emphasizes student-centered, inquiry-based, and collaborative learning, making it particularly valuable in language acquisition (Thomas, 2000). PBL engages learners in real-world projects that integrate knowledge, skills, and attitudes, allowing students to plan, implement, and present tasks relevant to their interests and experiences (Marple, Hull, & White, 2012). This approach encourages long-term engagement, focusing on meaningful understanding rather than short-term memorization, which enhances motivation and deepens learning (Gonzalez, 2016; Hosler, 2013).

One of PBL's key strengths lies in its authenticity: students work on real-world problems or projects, fostering curiosity, self-directed learning, and critical thinking (Savery, 2015). Collaboration is central to PBL, as learners work in teams to plan and execute projects, promoting communication and teamwork skills (Krajcik et al., 1998). The problem-solving focus of PBL also requires students to make decisions and engage in reflective thinking throughout the project (Hmelo-Silver et al., 2007). Its extended duration ensures sustained engagement, perseverance, and dedication to mastering both content and skills (Blumenfeld et al., 1991).

PBL is multidisciplinary, allowing learners to integrate knowledge from various subjects while developing higher-order thinking skills (Mergendoller et al., 2006). Reflection and self-assessment are embedded in the process, fostering metacognitive growth (Dochy et al., 2003). In addition, the emphasis on presentations and public communication helps strengthen English speaking and presentation abilities (Mills et al., 2008). By giving students choice and voice in their projects, PBL promotes motivation, ownership of learning, and personal investment in outcomes (Riley, 2010). Overall, the literature consistently supports PBL as a transformative instructional approach that enhances language proficiency, cultural awareness, and critical 21st-century skills. By engaging learners in authentic, collaborative, and inquiry-driven experiences, PBL prepares students to develop practical communication abilities and succeed in complex academic and professional contexts (Thomas, 2000; Shear et al., 2010).

The Role of the Teacher in PBL

In Project-Based Learning (PBL), teachers play a critical and multifaceted role in guiding and supporting students throughout the learning process. Rather than solely delivering content, teachers act as facilitators, coaches, and mentors, helping learners navigate the project while promoting independent thinking and collaboration (Blumenfeld et al., 1991; Bell, Smetana, & Binns, 2005).

Teachers begin by carefully designing and organizing projects, defining objectives, establishing criteria for success, and providing the necessary resources. Throughout the project, they monitor student progress, provide timely feedback, and support problem-solving, ensuring that learners remain on track to meet the project's goals (Bell et al., 2005). As coaches, teachers help students refine their work, encourage reflection, and guide critical thinking and decision-making. As mentors, they model effective communication, collaboration, and professional behaviors, fostering students' personal and academic growth (Blumenfeld et al., 1991).

Furthermore, teachers encourage student autonomy by allowing choice and voice within the project, which enhances motivation, engagement, and ownership of learning (Riley, 2010). By scaffolding the learning process while promoting self-directed inquiry, teachers help students develop key 21st-century skills, including communication, collaboration, and critical thinking.

In summary, the teacher's role in PBL is both complex and essential. Through facilitation, coaching, mentoring, and modeling, teachers guide learners to achieve language proficiency, effective collaboration, and practical problem-solving skills, ensuring that PBL fulfills its potential as a transformative learning approach.

The Role of the Students in PBL

In Project-Based Learning (PBL), students assume active roles in managing their learning and engaging in project-based tasks. PBL emphasizes student autonomy, where learners take responsibility for investigating real-world problems, collaborating with peers, and producing meaningful project outcomes (Thomas & Mergendoller, 2017). Through this approach, students become active contributors who make decisions, solve problems, and guide their own learning process, fostering deeper understanding and increased motivation (Helle, Tynjälä, & Olkinuora, 2006).

PBL also provides learners with opportunities to construct knowledge actively, develop critical thinking, and apply concepts in authentic contexts (Krajcik, Blumenfeld, Marx, & Soloway, 1998). By engaging in hands-on projects, students analyze information, generate creative solutions, and integrate skills across multiple domains. Collaboration with peers further enhances communication, teamwork, and social problem-solving abilities.

Overall, PBL empowers students to take ownership of their learning, promoting autonomy, collaboration, and critical thinking. Through self-directed inquiry and real-world application, learners gain a deeper understanding of the subject matter and develop essential 21st-century skills.

PBL in Language Acquisition

In language acquisition, PBL provides students with authentic opportunities to use English in meaningful, real-world tasks. By engaging in projects that require communication, problem-solving, and collaboration, learners develop not only language proficiency but also confidence in speaking and critical thinking skills (Bell, 2010). PBL projects have been shown to enhance all four language skills such as listening, speaking, reading, and writing through active, purposeful use of the target language (Beckett & Miller, 2006).

Collaboration is a central feature of PBL, as students work together to plan, discuss, and complete tasks, strengthening both communication skills and teamwork, which are essential in English language learning (Thomas, 2000). Additionally, projects that are culturally relevant and contextually meaningful increase learner engagement, foster cross-cultural understanding, and integrate language with cultural knowledge (Krajka & Jaremen, 2018). Successful implementation of PBL in language classrooms, however, depends on skilled teachers who can provide guidance, scaffolding, and timely feedback to support learners throughout the project (Ertmer & Simons, 2006).

Therefore, PBL in EFL classrooms not only promotes practical language use and communication skills but also cultivates critical thinking and intercultural competence, making it an effective approach for developing English speaking abilities in real-world contexts.

Flipped Learning (FL)

Flipped Learning (FL) or Flipped Classroom (FC) is an innovative pedagogical approach that redefines traditional instructional practices. Instead of dedicating class time to direct instruction, students are introduced to new content before class through resources such as pre-recorded lectures, multimedia materials, or assigned readings. This shift allows class time to be repurposed for interactive, collaborative, and higher-order learning activities that promote deeper understanding and language application (Bergmann & Sams, 2012).

FL encourages learners to engage with instructional materials at their own pace, fostering autonomy and greater responsibility for learning. During class, students participate in practical tasks, group discussions, and problem-solving activities that reinforce and extend their prior learning. This structure enables teachers to offer individualized guidance and feedback, enhancing learning effectiveness and student engagement (Talbert, 2017).

FC is grounded in the principles of active learning, where students construct knowledge through interaction and participation rather than passive listening (Strayer, 2012). Using technology to deliver pre-class instruction also supports the development of learners' digital literacy and self-directed learning skills (Sakulprasertsri, 2017). Furthermore, in-class collaboration promotes communication and teamwork, making FL highly compatible with language learning goals (Bergmann & Sams, 2012).

Research indicates that FL improves student performance, motivation, and attitudes toward learning by enabling more meaningful learning experiences aligned with students' needs (Lage, Platt, & Treglia, 2000; Trucker, 2012). Additionally, the approach allows teachers to focus on addressing misconceptions, facilitating practice, and supporting learners with diverse proficiency levels.

In summary, FL transforms classroom instruction from teacher-centered lecturing to student-centered active learning, providing EFL learners with increased opportunities for communication practice, feedback, and real-time language use. This makes FL a powerful approach for developing English speaking proficiency in modern educational contexts.

The Role of the Teacher in FL

In the FL approach, the teacher assumes a crucial role in designing and facilitating learning experiences that support student success. Teachers provide instructional materials such as videos, readings, or online resources before class to ensure that students come prepared with foundational knowledge (Sakulprasertsri, 2017). They also encourage learners to explore the content independently, conduct online research, and complete pre-class tasks to deepen their understanding (Du, 2018).

During class time, teachers shift from being the primary source of knowledge to acting as facilitators who create active and inquiry-based learning environments (Bergmann & Sams, 2012). Instead of delivering lectures, they guide discussions, monitor collaborative activities, and give timely feedback to support students' progress. This facilitative role empowers learners to take responsibility for their own learning and promotes more personalized interaction between teachers and students.

The transition from traditional teacher-centered instruction to a student-centered approach reflects a broader shift in education, where learning focuses on developing problem-solving, creativity, and lifelong learning skills (Cheng & Mok, 2008; Howell, 2013). By emphasizing how students learn rather than simply what they learn, the teacher's role in FL involves mediating learning experiences, providing scaffolding, and ensuring that students meaningfully apply new knowledge during in-class activities.

All in all, teachers in FL serve as instructional designers, facilitators, and learning mentors who promote active engagement and support students' autonomy, ultimately enhancing the effectiveness of English language learning.

The Role of the Students in FL

In FL approach, students are positioned at the center of the learning process and are responsible for actively engaging with instructional content before class. They interact with digital learning materials, manage their own learning pace, and come to class prepared with background knowledge (Strayer, 2012). This shift requires students to demonstrate autonomy, responsibility, and self-regulation, particularly in managing time, motivation, and learning outcomes.

Independent learning skills are essential in FL because students must explore learning resources and complete pre-class tasks without direct teacher supervision.

While this supports the development of self-directed learning abilities, it may also present challenges for learners who struggle with autonomy. Therefore, structured guidance and scaffolding are necessary to help students gradually build independence (Jones, Valdez, Nowakowski, & Rasmussen, 1994).

During in-class sessions, students are expected to collaborate, communicate, and participate actively in problem-solving and knowledge-sharing activities. Prior exposure to instructional content enhances engagement and facilitates deeper understanding during class activities (Bodie, Powers, & Fitch-Hauser, 2006). This collaborative environment promotes peer learning and strengthens students' confidence in applying knowledge to real-world situations.

In summary, the role of students in FL involves being proactive learners who take responsibility for their academic progress while actively participating in interactive classroom tasks. Although they shift away from passive listening to more active learning behaviors, continuous support from teachers remains vital for successful knowledge construction and skill development.

The Role of Technology in FL

Technology serves as the cornerstone of FL, enabling instructional content to be delivered outside the classroom and transforming traditional learning environments into collaborative, interactive spaces. Without technological tools such as videos, learning management systems (LMS), or Web 2.0 platforms, the flipped model would not effectively function (Bergmann & Sams, 2012). The widespread availability of online resources has significantly reshaped instructional practices, allowing students to access learning materials anytime and anywhere at their own pace.

Technology in FL supports personalized learning by enabling students to review content repeatedly and focus on areas requiring deeper understanding (Sargent & Casey, 2020). During in-class sessions, technology facilitates interactive and student-centered learning activities, where learners apply conceptual knowledge through communication, collaboration, and problem-solving tasks. This transformation shifts classrooms from passive lecture spaces into dynamic environments where knowledge is actively constructed with teacher guidance.

Moreover, technology integration encourages the development of 21st-century competencies such as digital literacy, creativity, critical thinking, and innovation. These

skills are increasingly important as digital tools become embedded in both educational and professional contexts. Therefore, technology not only supports the practical implementation of the flipped model but also enhances overall learning outcomes and prepares students for success in a rapidly evolving digital world.

FL in Language Acquisition

FL is an innovative instructional model with strong potential in language acquisition classrooms. It allows students to access instructional materials such as grammar explanations, vocabulary resources, and authentic language input before class, while class time is devoted to active learning and communicative activities (Bergmann & Sams, 2012). This student-centered model creates a more personalized learning experience, enabling learners to review foundational content at their own pace and reserve face-to-face sessions for higher-order language practice, including speaking and interaction tasks (Hung, 2015). Studies have shown that FL increases student engagement and motivation, both of which are essential for successful language learning (Herreid & Schiller, 2013). By accommodating students' diverse proficiency levels and maximizing opportunities for meaningful communication, FL supports deeper linguistic understanding and enhances overall language acquisition. For example, in an EFL classroom, students may watch short instructional videos explaining grammar structures, vocabulary usage, or pronunciation patterns before class. During class time, teachers can organize interactive activities such as group discussions, role-plays, problem-solving tasks, or collaborative mini-projects that require students to actively use English. These activities provide meaningful opportunities for learners to practice speaking while applying the knowledge acquired during the pre-class learning stage.

The Four Pillars of FL

Based on the Flipped Learning Network and Person's School Achievement Services, there are four important pillars of flipped learning: a flexible environment, a learning culture, intentional content, and a professional educator (Hamden et al., 2013), see Figure 2.1.

The flexible environment pillar emphasizes creating a conducive learning environment that allows for personalized and self-paced learning. This pillar is crucial as it enables students to access and engage with the pre-recorded instructional materials

or resources at their own pace. This flexibility allows students to explore the problem-based scenarios, research, and gather relevant information before engaging in collaborative problem-solving activities during class time.

The learning culture pillar focuses on fostering an atmosphere of active learning, collaboration, and inquiry. This pillar encourages students to actively engage in problem-solving activities during class time. By watching instructional videos or accessing content outside of class, students can come prepared with foundational knowledge, allowing them to delve deeper into problem analysis, critical thinking, and collaborative discussions with peers and the instructor.

The intentional content pillar emphasizes the purposeful design of instructional materials and resources to support student learning. The pre-recorded instructional materials play a crucial role. These materials are carefully selected and designed to introduce students to the problem-based scenarios, provide background information, and guide their initial exploration of the topic. The content should be engaging, concise, and designed to stimulate curiosity and promote further investigation.

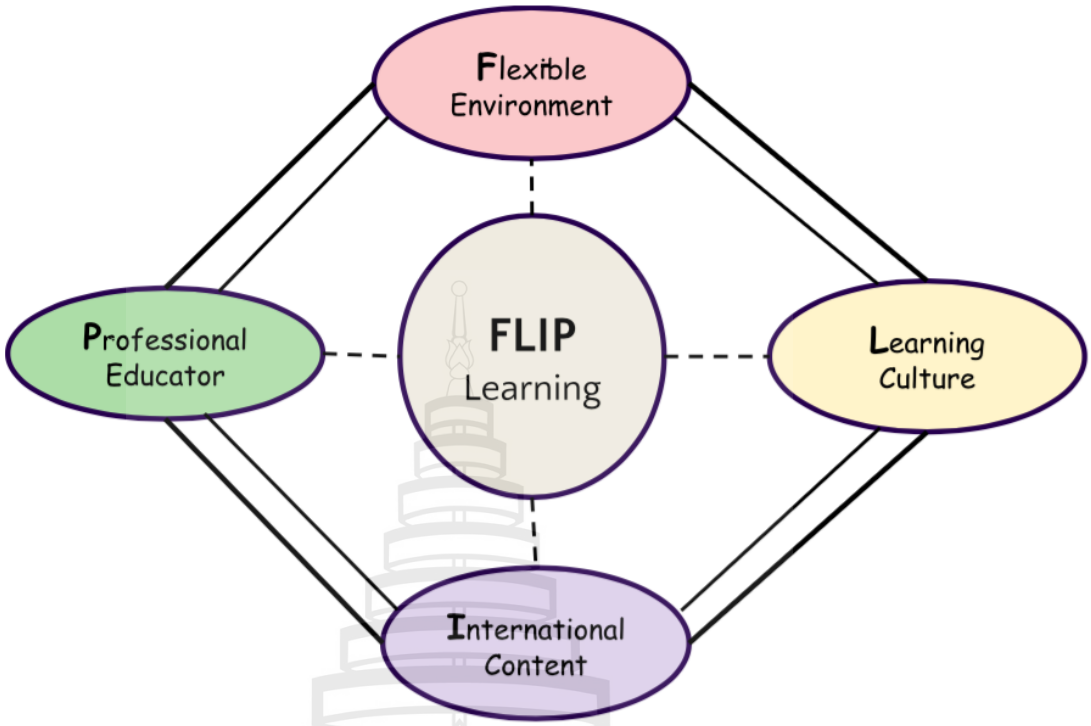
The professional educator pillar recognizes the important role of the instructor as a facilitator and guide in the learning process. The instructor plays a significant role in designing problem-based scenarios, creating meaningful learning experiences, and guiding students through the problem-solving process. The instructor provides support, feedback, and scaffolding to help students navigate complex problems, develop critical thinking skills, and make connections between the pre-recorded content and real-world applications.

PBL immerses students in real-world language situations, fostering critical thinking and practical application (Thomas, 2000). FL, conversely, empowers students by granting them control over their learning process, leading to deeper comprehension and increased engagement with course materials (Bergmann & Sams, 2012). These methods align with the overarching goal of improving speaking skills, as they encourage students to actively engage with and apply language knowledge in authentic contexts.

While other active learning approaches, such as inquiry-based learning, emphasize student-driven questioning and curiosity-driven exploration (Pedaste et al., 2015), and problem-based learning (Hmelo-Silver, 2004) supports real-world problem

solving, PBL and flipped learning stand out for their potential to directly impact speaking proficiency. The integration of elements from both traditional and active learning strategies in the PBFL model offers a dynamic and student-centered approach that holds promise in furthering English language acquisition, specifically in the context of speaking skills development.

In summary, the Four Pillars of Flipped Learning: flexible environment, learning culture, intentional content, and professional educator form the basis of the PBFL model. These pillars serve as guiding principles for implementing problem-based learning within a flipped classroom. By creating a flexible environment, students have the opportunity to engage actively in collaborative and inquiry-based activities. The learning culture fosters a student-centered approach, promoting critical thinking and problem-solving skills. Intentional content, including pre-recorded materials, is strategically designed to support and enhance students' understanding of the subject matter. Lastly, the professional educator plays a vital role in facilitating and guiding students' learning experiences in the PBFL model. Together, these pillars provide a solid foundation for the effective implementation of PBFL, enabling students to develop their problem-solving abilities and gain a deeper understanding of the content. In the context of this study, the principles of flipped learning are integrated with project-based learning to form the Project-Based Flipped Learning (PBFL) model. In this approach, students first acquire foundational knowledge before class through digital learning materials such as videos and readings. Classroom time is then used for collaborative project-based activities where students discuss ideas, solve problems, and present their work in English. This integration allows learners to apply language knowledge in meaningful communicative tasks, thereby strengthening their speaking abilities through active interaction and collaboration.



Source Hamden et al. (2013)

Figure 2.1 Four Pillars of Flipped Learning

2.6 The Integration of PBL and FL

The integration of PBL and FL results in a comprehensive instructional approach commonly referred to as the PBFL model. Within PBFL, students first engage with instructional content outside the classroom in line with the flipped learning structure, enabling them to acquire essential background knowledge at their own pace (Bergmann & Sams, 2012). Classroom time is then dedicated to interactive and collaborative project work consistent with the principles of PBL, where learners apply their knowledge to authentic tasks and deepen their understanding through inquiry-driven activities and real-world problem solving (Thomas, 2000).

PBFL combines the strengths of both pedagogical models by enhancing students' critical thinking, creativity, and communication skills (Prince, 2004), while simultaneously offering differentiated, self-paced learning opportunities (Hung, 2015). Existing research suggests that this integrated approach increases learner motivation and engagement (Herreid & Schiller, 2013), and supports deeper and more meaningful

learning outcomes (Talbert, 2017). Therefore, PBFL provides a promising framework for promoting active, student-centered language learning experiences, particularly in contexts requiring enhanced speaking abilities. By combining pre-class knowledge acquisition with in-class collaborative project work, PBFL maximizes classroom interaction and creates extended opportunities for meaningful English speaking practice.

The Characteristics of PBFL Model

The PBFL model combines key characteristics of both PBL and FL to create a dynamic and innovative instructional approach. In the PBFL model, students independently access instructional materials before class in a flipped classroom structure, allowing for self-paced learning and building foundational knowledge (Bergmann & Sams, 2012). The in-class time is dedicated to project-based activities, where students engage in collaborative, hands-on projects that align with real-world challenges and promote inquiry-based learning (Thomas, 2000). PBFL emphasizes student-centeredness, as students take ownership of their learning and apply their knowledge to meaningful projects, fostering critical thinking, problem-solving, and communication skills (Prince, 2004). The integration of PBL and FL in the PBFL model also offers opportunities for personalized learning experiences, differentiation, and deeper understanding of the subject matter (Hung, 2015). This combination of characteristics makes the PBFL model a powerful and effective approach that enhances student engagement, motivation, and learning outcomes in the 21st-century classroom. These characteristics are particularly relevant in EFL classrooms, where students require structured opportunities to practice speaking through collaboration, discussion, and project presentations.

The Role of Teacher in PBFL

In the PBFL model, the role of the teacher is critical in facilitating and guiding the learning process. The teacher primarily serves as a facilitator and coach, creating a student-centered and inquiry-driven learning environment (Bergmann & Sams, 2012). Before class, the teacher curates and designs instructional materials, such as pre-recorded videos, readings, or online resources, to support students' independent learning and build foundational knowledge (Hung, 2015). During in-class sessions, the teacher shifts from a traditional lecture-based approach to actively engaging with students in

project-based activities (Thomas, 2000). The teacher guides and supports students as they work collaboratively on projects, providing feedback, encouragement, and scaffolding as needed to promote critical thinking and problem-solving skills (Prince, 2004). Additionally, the teacher fosters a positive and inclusive learning environment, encouraging open communication, creativity, and self-expression among students. By adapting to students' individual needs and learning styles, the teacher ensures that each student receives personalized attention and opportunities for growth and success in the PBFL model.

The Role of Students in PBFL

In the PBFL model, students play an active and central role in their own learning process. They take on a more independent and self-directed approach to learning, making choices and decisions that shape their educational experience. Before class, students are responsible for accessing and engaging with the instructional materials provided by the teacher, which may include pre-recorded videos, readings, or online resources (Hung, 2015). This self-paced learning allows students to build foundational knowledge and prepares them for the in-class project-based activities. During in-class sessions, students collaborate in groups or individually, working on projects that align with real-world challenges and foster inquiry-based learning (Thomas, 2000). They actively apply their knowledge and skills to solve problems, critically analyze information, and communicate their findings. Students are encouraged to ask questions, explore new ideas, and seek solutions, promoting curiosity and independent thinking (Prince, 2004). The PBFL model empowers students to take ownership of their learning, enhancing their sense of responsibility and motivation to excel in their studies. The role of the teacher is to facilitate and guide this process, providing support, feedback, and encouragement to help students reach their full potential. Through these collaborative and communicative activities, students are provided with frequent opportunities to practice English speaking, present their ideas, and interact meaningfully with peers.

Conclusion and Justification for Implementing PBFL

Building on the roles of teachers and students in the PBFL model, this approach provides a comprehensive framework that links self-paced pre-class learning with collaborative, real-world project activities. PBFL not only develops language proficiency but also strengthens critical thinking, communication, collaboration, and

problem-solving skills in a student-centered environment. In today's rapidly evolving digital and technology-driven era, learners need to engage with technology while applying English in authentic contexts, making traditional instruction insufficient for developing speaking skills. Implementing PBFL in the Myanmar EFL context offers students meaningful opportunities to practice English speaking, gain confidence, and apply their knowledge in practical tasks. Therefore, the PBFL model is a timely and effective strategy to enhance Burmese students' English-speaking abilities, equipping them to thrive in a globalized, technology-rich world.

2.7 Assessment of English Speaking Performance

Assessing speaking ability is an essential component in evaluating learners' communicative competence in English as a Foreign Language (EFL). Unlike other language skills, speaking requires the integration of multiple linguistic and cognitive abilities, including pronunciation, grammar, vocabulary usage, fluency, and interaction. Therefore, assessing speaking performance requires systematic criteria that can capture the complexity of oral communication.

Components of Speaking Performance

In EFL assessment, speaking performance is often evaluated through several key components. These components provide a comprehensive framework for measuring learners' ability to communicate effectively in English.

Pronunciation refers to the clarity and accuracy with which learners produce English sounds, stress patterns, and intonation. Accurate pronunciation helps listeners understand the speaker's message more easily.

Fluency relates to the smoothness and flow of speech. Fluent speakers can express ideas continuously with minimal hesitation or unnatural pauses.

Vocabulary refers to the range and appropriateness of words used during communication. A wider vocabulary allows learners to express ideas more precisely and effectively.

Grammar involves the correct use of sentence structures and grammatical rules when speaking. Grammatical accuracy contributes to clearer and more understandable communication.

Interaction refers to the speaker's ability to respond appropriately during communication, including maintaining conversation, asking questions, and demonstrating understanding.

Together, these components represent important aspects of speaking proficiency and are commonly used in language assessment frameworks. These components were selected because they represent key dimensions of communicative competence and are widely used in speaking assessment frameworks in EFL research.

Speaking Assessment Rubrics

To evaluate speaking performance systematically, many language studies use analytic speaking rubrics. An analytic rubric assesses each component of speaking ability separately, allowing teachers and researchers to provide detailed evaluation of learners' oral performance.

Analytic rubrics are particularly useful in EFL research because they enable a more precise measurement of different aspects of speaking ability, such as pronunciation, fluency, grammar, and vocabulary usage. By assessing these components individually, educators can identify specific strengths and weaknesses in learners' speaking skills.

In this study, speaking performance is assessed using an analytic rubric that evaluates pronunciation, fluency, grammar, vocabulary, and interaction. This approach provides a comprehensive assessment of students' oral communication ability and allows the researcher to measure improvement in speaking performance after the implementation of the PBFL model.

2.8 Instructional Design Models

Instructional design models provide systematic frameworks that guide educators in planning, developing, implementing, and evaluating effective teaching and learning processes. These models help ensure that learning objectives, instructional activities, and assessments are aligned to support meaningful learning outcomes. Over the years,

several instructional design models have been developed to guide teaching practices, including ADDIE, Bloom's Taxonomy, Gagne's Nine Events of Instruction, Merrill's Principles of Instruction, and the 5Es instructional model. Each model emphasizes different aspects of the learning process, such as cognitive development, structured instructional events, problem-centered learning, and inquiry-based learning. Reviewing these models provides important theoretical foundations for designing effective instructional strategies. In this study, these instructional design perspectives inform the development of the PBFL model for enhancing English speaking performance.

ADDIE Model

ADDIE is an instructional systems design (ISD) framework widely used by instructional designers and training developers to develop educational courses and learning materials (May, 2018). The acronym ADDIE stands for Analyze, Design, Develop, Implement, and Evaluate, representing a five-phase process used to develop systematic instructional materials. Because the ADDIE model originated in higher education settings, it adopts a formative approach to evaluate the effectiveness of teaching and learning processes (Peterson, 2003). The five phases of the ADDIE model are presented below:

Analysis Phase:

According to May (2018), the Analyze phase involves identifying the instructional problem, defining learning needs, and conducting an analysis of learners, learning environments, and existing knowledge or skills. This phase ensures that instructional interventions are tailored to the specific context and needs of students.

Design Phase:

In the Design phase, instructional designers formulate precise learning objectives and determine appropriate instructional strategies to achieve these objectives (May, 2018). Key considerations include the selection of instructional methods, the visual presentation of materials, and delivery modes that will support learning outcomes.

Development Phase:

During the Development phase, instructional materials and learning resources are created and integrated into the instructional design framework (May, 2018). These

deliverables undergo quality assessment and revisions to ensure alignment with learning objectives and instructional goals.

Implementation Phase:

The Implementation phase involves delivering the instructional materials to learners and monitoring their engagement and performance (May, 2018). Teachers observe learners' interactions, provide support as needed, and ensure that instructional activities are effectively applied in classroom practice.

Evaluation Phase:

In the Evaluation phase, the effectiveness of the instructional program is assessed to determine whether the intended learning outcomes have been achieved (May, 2018). Evaluation may include both formative and summative assessments to guide future improvements in instructional design.

In the context of this study, the ADDIE model serves as the primary framework for developing the PBFL model. The Analyze phase identifies challenges faced by Myanmar EFL learners in developing English speaking skills and examines the learning environment and students' needs. The Design phase plans instructional strategies that integrate flipped learning and project-based learning to support speaking development. The Development phase creates learning materials, instructional videos, and project-based speaking activities. The Implementation phase applies the PBFL model in the classroom through collaborative speaking tasks, discussions, and project presentations. Finally, the Evaluation phase assesses the effectiveness of PBFL in improving students' English speaking performance and collects feedback for further improvement.

Bloom's Taxonomy

Bloom's Taxonomy, as revised by Anderson et al. (2000), classifies learning into three main domains: cognitive, affective, and psychomotor, each encompassing a spectrum of skills and abilities, providing a comprehensive framework for understanding and categorizing diverse aspects of learning and human development. Bloom devised a learning model that is sometimes portrayed as a pyramid with multiple degrees of learning. Bloom's taxonomy is the name given to this system. This framework is widely used as a frame as a way to see the various stages of learning. This revised version of Bloom's Taxonomy is relevant to flipped learning because the transmission of information, which is the foundation for learning, takes place outside

of class, while the assimilation of information, which requires more critical thinking, takes place in class under the supervision of an instructor. The higher the tier on the pyramid, the more assimilation is necessary; meanwhile, the lower the level, the more information is transmitted partially independently of assimilation, but not entirely. In the middle, a more balanced or less skewed combination of the two might be necessary.

Talbert (2012) highlighted the importance of the concepts and transmission when discussing flipped learning. Bloom's taxonomy is useful for illustrating the phases of learning and the types of learning that occur at each stage, but it does not explain how to master each level in a given setting. In terms of Bloom's taxonomy, the advantage of flipped learning is that students are actively helped and encouraged throughout some of the higher-order thinking activities. Cognitive constructivism and behaviorism are examples of other models and theories that explain how learning occurs at the various phases described by Bloom's taxonomy.

Bloom also emphasized the importance of focusing on higher-level learning goals rather than basic abilities. Higher mental processes are stressed because this form of learning allows an individual to connect what he or she has learned to the myriad challenges that they face in everyday life. These skills are valued because they are maintained and used long after the individual has forgotten the intricacies of the subject matter covered in school. These talents are viewed as one set of necessary attributes for continuing to learn and coping in a fast-changing world (Bloom, 1978). Evidently, Bloom’s Taxonomy classifies diverse domains of learning, from the basic recalling of facts to applying knowledge, which generates something new, and every domain has different levels.

Gagne’s Nine Events of Instruction

Robert Gagne’s Nine Events of Instruction is based on the behaviorist approach to learning. Gagne identified the mental conditions needed for learning in adults. While Gagne's theoretical framework incorporates many aspects of learning, its concentration is on intellectual abilities. In all fields, the principle has been used in the design of instruction (Gagne & Driscoll, 1988). According to May (2018), the Nine Events of Instruction are:

1. Gain the student's attention: Emotional buy-in is the first step in laying the foundation for learning retention. This can be done by telling a story or asking a thought-provoking question.

2. Inform the students of the objectives: Establishes expectations for the course and criteria for measuring success or failure.

3. Stimulate the prior learning recall: Uses existing knowledge as a scaffold to incorporate new knowledge.

4. Present the content: Use chunking for easy consumption of the content.

5. Provide learner guidance: Supplement the content with case studies, activities, discussion questions, and other instructional support materials.

6. Elicit performance: Challenge the learner's activities that recall, utilize, and evaluate knowledge.

7. Provide feedback: Use immediate feedback to reinforce knowledge.

8. Assess performance: Test learner knowledge against established criteria.

9. Enhance retention and transfer to another job: Use content retention strategies and appropriate job aids to retain new knowledge.

The Nine Levels of Learning, developed by Gagne, give a step-by-step checklist for creating and presenting thorough and successful learning experiences. Each stage is meant to aid your trainees in comprehending and remembering information.

Merrill's Principles of Instruction

David Merrill's 2002 First Principles of Instruction framework integrates five principles of learning. Merrill's First Principles of Instruction is a problem-solving approach to instruction. In this approach, learners go through four separate phases. Educators can apply this notion when they need to change the way they teach (Merklein, 2011). According to May (2018), Merrill's principles of instruction are

1. Task-centered principle: Learning starts with a real-world task or problem the learners can relate to.

2. Activation principle: Activating the learner's existing knowledge base helps them connect previous knowledge with the new knowledge.

3. Demonstration principle: A course must demonstrate the knowledge in multiple ways (for example, both visually and through storytelling) so that it leverages different regions of the brain and increases knowledge retention.

4. Application principle: learners must apply new information on their own and learn from their mistakes.

5. Integration principle: Help to integrate the knowledge into the learner’s world through discussion, reflection, and/or the presentation of new knowledge.

Learning is encouraged when students are engaged in addressing problems, according to Merrill's five principles. Explicit knowledge is used as a basis for learning new information.

The Five Elements of an Instructional Model

The five elements instructional model is an educational framework that emerged from a design study in the mid-1980s, initially funded by IBM. This model consists of five key phases: engagement, exploration, explanation, elaboration, and evaluation. The five elements of an instructional model effectively integrate diverse instructional methodologies, fosters meaningful connections between educational activities, and provides invaluable guidance to science educators in assessing and enhancing student interactions within the learning process (BSCS, 2019). This model has demonstrated effectiveness in promoting students' ability to engage in scientific research (Bybee, 2009).

Engagement:

In this phase, the teacher or curriculum task aims to engage students by accessing their prior knowledge and generating curiosity about a new concept. Short activities are employed to make connections between past and present learning experiences, expose any misconceptions, and organize students' thinking towards the desired learning outcomes.

Exploration:

The exploration phase involves providing students with activities that allow them to explore and investigate the concept further. Through lab activities or other hands-on experiences, students utilize their prior knowledge to generate new ideas, explore questions and possibilities, and conduct preliminary investigations.

Explanation:

In the explanation phase, students focus their attention on a specific aspect of their engagement and exploration experiences. They have opportunities to demonstrate their conceptual understanding, process skills, or behaviors. Teachers may directly

introduce concepts, processes, or skills, guiding students towards a deeper understanding through explanations and clarifications.

Elaboration:

In the elaboration phase, teachers challenge and extend students' understanding and skills. Through new experiences and activities, students deepen their understanding, acquire additional information, and develop adequate skills related to the concept. They apply their understanding in practical contexts and engage in activities that require further application and analysis.

Evaluation:

The evaluation phase allows students to assess their own understanding and abilities. It also provides opportunities for teachers to evaluate students' progress towards the educational objectives. Various assessment methods can be employed to gauge the extent to which students have achieved the desired learning outcomes.

The 5Es Model enables teachers to provide students with an effective learning opportunity. Teachers who are able to incorporate instructional models such as the 5Es Model into their classrooms help students develop a depth of understanding by engaging them in active learning.

2.9 Synthesizing the Instructional Models

Table 2.1 presents a synthesis of five major instructional design frameworks: ADDIE, Bloom's Taxonomy, Gagne's Nine Events of Instruction, Merrill's Principles of Instruction, and the 5Es Model. Each model emphasizes distinct but complementary aspects of instructional design and learning. Bloom's Taxonomy highlights the hierarchy of cognitive skills, Gagne's model provides structured instructional events, Merrill's principles focus on task-centered learning and activation of prior knowledge, and the 5Es Model emphasizes inquiry-based, active learning. Collectively, these models offer insights into designing effective, learner-centered instruction. In Table 2.1, a checkmark (✓) indicates alignment with Flipped Learning (FL) principles, while unmarked cells reflect areas that do not directly correspond.

Table 2.1 Synthesizing the Instructional Models

ADDIE	**Aligned with FL**	**Bloom Taxonomy**	**Aligned with FL**	**Gagne's Nine Events of Instruction**	**Aligned with FL**	**Merrill's Principles of Instruction**	**Aligned with FL**	**5Es**	**Aligned with FL**
Analyze	✓	Remember		Gain the student's attention	✓	Task-centered principle		Engagement	✓
Design	✓	Understand	✓	Inform students of the objectives		Activation principle	✓	Exploration	✓
Develop	✓	Apply	✓	Stimulate recall of prior learning	✓	Demonstration principle	✓	Explanation	
Implement	✓	Analyze	✓	Present the content	✓	Application principle	✓	Elaboration	✓
Evaluate	✓	Evaluate	✓	Provide learner guidance		Integration principle	✓	Evaluation	✓
		Create	✓	Elicit performance	✓				
				Provide feedback	✓				
				Assess performance	✓				
				Enhance retention and transfer to job					

As seen in Table 2.1, this study focuses on integrating the PBFL model with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) framework for effective instructional design and implementation. ADDIE provides a structured, systematic approach that guides educators through five phases, enabling them to assess readiness for flipped learning, develop instructional materials, implement project-based and flipped strategies effectively, and evaluate learning outcomes. This framework ensures a comprehensive and well-organized process for creating engaging and effective learning experiences.

While ADDIE was selected for PBFL, it is useful to consider other instructional approaches. Bloom's Taxonomy categorizes cognitive learning objectives from remembering to creating, guiding the design of learning goals and assessments, but it does not address the integration of project-based and flipped classroom strategies. Gagne's Nine Events of Instruction outlines structured instructional steps, yet it does not explicitly consider project-based learning or flipped learning implementation. Merrill's Principles emphasize real-world, task-centered learning, but offer limited guidance on structuring flipped classroom activities. The 5Es Model promotes inquiry-based learning and engagement, but it does not fully address the systematic instructional design needed for PBFL.

Despite their merits, these models are less comprehensive for designing and implementing the PBFL approach. In contrast, ADDIE's structured phases support the integration of project-based learning with flipped classroom strategies, while allowing continuous evaluation and adjustment to meet learners' needs. By guiding analysis, design, development, implementation, and evaluation, ADDIE ensures a well-developed PBFL experience, fostering effective learning outcomes.

In summary, after synthesizing the major instructional models, ADDIE is selected as the primary framework for developing and implementing the PBFL model in this study. It offers the most comprehensive, systematic structure for integrating project-based and flipped learning, ensuring that instructional design aligns with learners' needs, goals, and speaking performance development.

2.10 Related Research in Practice at Asia Context

In recent years, the Asian EFL context has seen growing empirical interest in integrating PBL and FL, especially in combined models akin to PBFL. For example, a systematic review by Pan Qi, Jumaat, Abuhassna, and Ting (2024) examined flipped classroom approaches in language learning and identified critical issues such as the need for stronger teacher training and better technology integration in Asian contexts.

Several studies have investigated flipped classroom implementations in Southeast Asia. In Indonesia and Thailand, Kawinkoonlasate (2024) applied a digital flipped classroom with EFL learners and reported improvements in writing skills and learner engagement. This aligns with PBFL principles by demonstrating increased learner engagement and potential for collaborative speaking tasks. Meanwhile, Pilu and Jabu (2025) interviewed Indonesian EFL teachers and found that students struggled with self-regulation, time management, unequal technology access, and adapting to flipped learning models. This highlights the need for scaffolding autonomy and time management in PBFL implementation.

Evidence for PBL's impact in EFL contexts is strong. A meta-analysis by The Asia-Pacific Education Researcher (2024) indicated that PBL has a large positive effect on academic achievement in EFL classrooms, with notable gains in speaking and listening skills. Similarly, Sirisrimangkorn (2021) conducted a study on EFL undergraduates using PBL with presentation tasks and found significant improvement in students' speaking ability. These findings support PBFL's focus on project-based, collaborative speaking activities.

More technologically integrated research supports these findings. Benlaghrissi and Ouahidi (2024) reported that mobile-assisted project-based learning (MALL + PBL) significantly enhanced EFL students' speaking skills, including fluency, vocabulary use, grammatical accuracy, and pronunciation. This demonstrates PBFL principles of technology integration, collaboration, and authentic language use. The integration of mobile devices made project work more interactive and authentic, fostering greater learner engagement and motivation. By providing opportunities for collaborative, real-world tasks and immediate practice, mobile-assisted PBL not only

strengthened oral performance but also promoted learner autonomy and active participation in language learning activities.

Flipped learning research also directly addresses speaking skills. In primary education, Santhanasamy and Md Yunus (2022) used a flipped classroom combined with the Blendspace tool to improve pupils' speaking skills, showing that pre-class video learning plus in-person active practice supports oral development. Another study in higher education by Fischer and Yang (2022) implemented a collaborative flipped out-of-class component, where students watched pre-class content in small online groups and reported significant gains in oral performance on mock IELTS tests.

Emerging research explores technology-enhanced flipped models. Uchiyama, Umemura, and Morita (2023) proposed a system using large language models (LLMs) to give students immediate feedback during flipped-class preparation, helping them reflect and correct their understanding before class. This tech-enabled feedback loop could be adapted in PBFL to support speaking preparation, especially in contexts with limited teacher-student interaction outside class.

Despite substantial research on FL, PBL, and technology-assisted learning in neighboring countries, no study has specifically examined PBFL's effect on speaking performance in Myanmar EFL contexts.

2.11 Related Research in Practice at Western Context

Research in Western higher education has increasingly embraced models that blend flipped learning, project-based approaches, and technology, forming a foundation similar to the PBFL model studied in this research. For instance, the principle of constructive alignment remains foundational: learning outcomes, instructional activities, and assessments are intentionally aligned to promote meaningful, deep learning (Biggs & Tang, 2011).

Research in Western higher education has increasingly embraced models that blend flipped learning, project-based approaches, and technology, forming a foundation similar to the PBFL model studied in this research. For instance, the principle of constructive alignment remains foundational: learning outcomes, instructional

activities, and assessments are intentionally aligned to promote meaningful, deep learning (Biggs & Tang, 2011).

Active learning strategies, such as collaborative problem-solving and peer interaction, continue to be central. Chickering and Gamson's (1987) principles remain influential, but recent research demonstrates how technology can amplify these strategies. In a medical education context, a study integrating Case-Based Learning (CBL) with a flipped classroom found that this blended model significantly enhanced international students' critical thinking and active learning (BMC Medical Education, 2024).

Innovations in flipped pedagogy are also leveraging artificial intelligence and large language models. Tan (2023) proposed an LLM-driven flipped classroom, empowering students to co-create peer questions, fostering deeper interaction and self-regulated learning in large lecture courses. This reflects PBFL's goal of fostering learner autonomy and interaction through technology.

Technology-enhanced language learning research further illustrates the potency of flipped models. Abdolmaleki and Saeedi (2024) combined Brain-Based Computer-Assisted Language Learning (BBCALL) with a flipped classroom on a Learning Management System (LMS) for general English courses in higher education, reporting significant improvements in vocabulary acquisition and reading comprehension. This supports PBFL integration of technology-enhanced preparation and active classroom engagement. Their study shows how neurological and cognitive principles can be aligned with pedagogical design to boost language outcomes.

Immersive learning environments are also being explored to enhance flipped learning. Alizadeh (2024) conducted a mixed-methods study in which students participated in a virtual flipped learning course. The findings revealed high engagement and positive perceived learning outcomes, illustrating immersive learning experiences consistent with PBFL's collaborative and active learning principles.

However, few studies in Western higher education specifically examine how PBFL can enhance English speaking performance among Myanmar EFL learners.

2.12 Summary

This chapter underscores the critical importance of learning English, particularly in developing speaking skills across diverse contexts. English plays a pivotal role in EFL settings and contributes significantly to Myanmar's socio-economic development and global engagement. Improving English speaking proficiency is essential for effective communication in both educational and professional domains. Innovative pedagogical approaches, such as PBL and FL, have demonstrated significant potential in enhancing language learning outcomes. PBL emphasizes active engagement, student-centered learning, collaboration, and practical application of language skills, whereas FL leverages technology to create more interactive and personalized learning experiences. The integration of these approaches through the Project-Based Flipped Learning (PBFL) model provides a comprehensive framework for effective English language instruction.

The chapter further reviewed empirical studies in Asian EFL contexts and Western higher education, illustrating the benefits of technology-enhanced and student-centered instructional models. These insights support the rationale for employing PBFL to develop speaking skills, highlighting the critical role of teachers in facilitating meaningful and transformative learning experiences. Overall, the chapter provides a theoretical and practical foundation for adopting PBFL as a strategy to enhance speaking skills among Burmese EFL learners.

2.13 Operational Definition of PBFL in This Study

In this study, Project-Based Flipped Learning (PBFL) refers to an instructional approach that integrates flipped classroom strategies with project-based learning activities to enhance students' English speaking skills. Within the flipped learning component, students engage with instructional materials, such as video lectures, readings, and guiding questions, prior to attending class. This pre-class preparation enables learners to acquire foundational knowledge independently, thereby facilitating active participation in subsequent classroom activities.

During in-class sessions, project-based learning activities are implemented to provide opportunities for meaningful communication and collaboration. Students work in groups to complete tasks such as discussions, problem-solving exercises, role-play simulations, and project presentations. These activities require learners to apply acquired knowledge, interact with peers, and express ideas in English, promoting authentic language use. By combining flipped learning and project-based approaches, PBFL fosters student-centered learning, enhances collaborative communication, and provides sustained opportunities for practicing English speaking in realistic learning contexts.

2.14 Conceptual Framework of the Study

The conceptual framework of this study illustrates the theoretical and instructional foundations guiding the development and implementation of PBFL to enhance Burmese EFL students' speaking skills. At its core, the PBFL model integrates the strengths of FL and PBL. Flipped learning restructures the traditional classroom by enabling students to access instructional materials, including videos and readings, before class. This pre-class preparation allows learners to acquire foundational knowledge independently and equips them for more active engagement during classroom activities.

PBL complements FL by providing students with opportunities to apply knowledge through collaborative and meaningful projects. Activities such as group discussions, presentations, problem-solving tasks, and role-play simulations encourage learners to actively communicate in English, negotiate meaning, and engage in authentic language use. These experiences also foster learner autonomy, critical thinking, and collaborative skills, which are essential for effective language acquisition.

The development and implementation of PBFL in this study are guided by the ADDIE instructional design model, which provides a systematic and structured framework. The analysis phase identifies students' speaking difficulties and learning needs in the Myanmar EFL context. The design and development phases involve creating flipped learning materials and project-based speaking activities aligned with

the study's learning objectives. During the implementation phase, PBFL is applied in the classroom through structured collaborative tasks and speaking projects. Finally, the evaluation phase assesses the effectiveness of PBFL in improving students' speaking performance and gathers students' perceptions of the learning experience.

Furthermore, the conceptual framework incorporates the development of 21st-century learning skills, particularly the three Cs: communication, collaboration, and critical thinking. These competencies are cultivated through interactive speaking tasks and group project activities that require learners to express ideas, work cooperatively, and solve problems collaboratively. Technology also supports the flipped learning component by providing digital learning materials and online resources that facilitate flexible and independent learning. Consequently, the framework demonstrates how PBFL can promote meaningful learning experiences, learner engagement, and enhanced English speaking performance among Burmese EFL students.

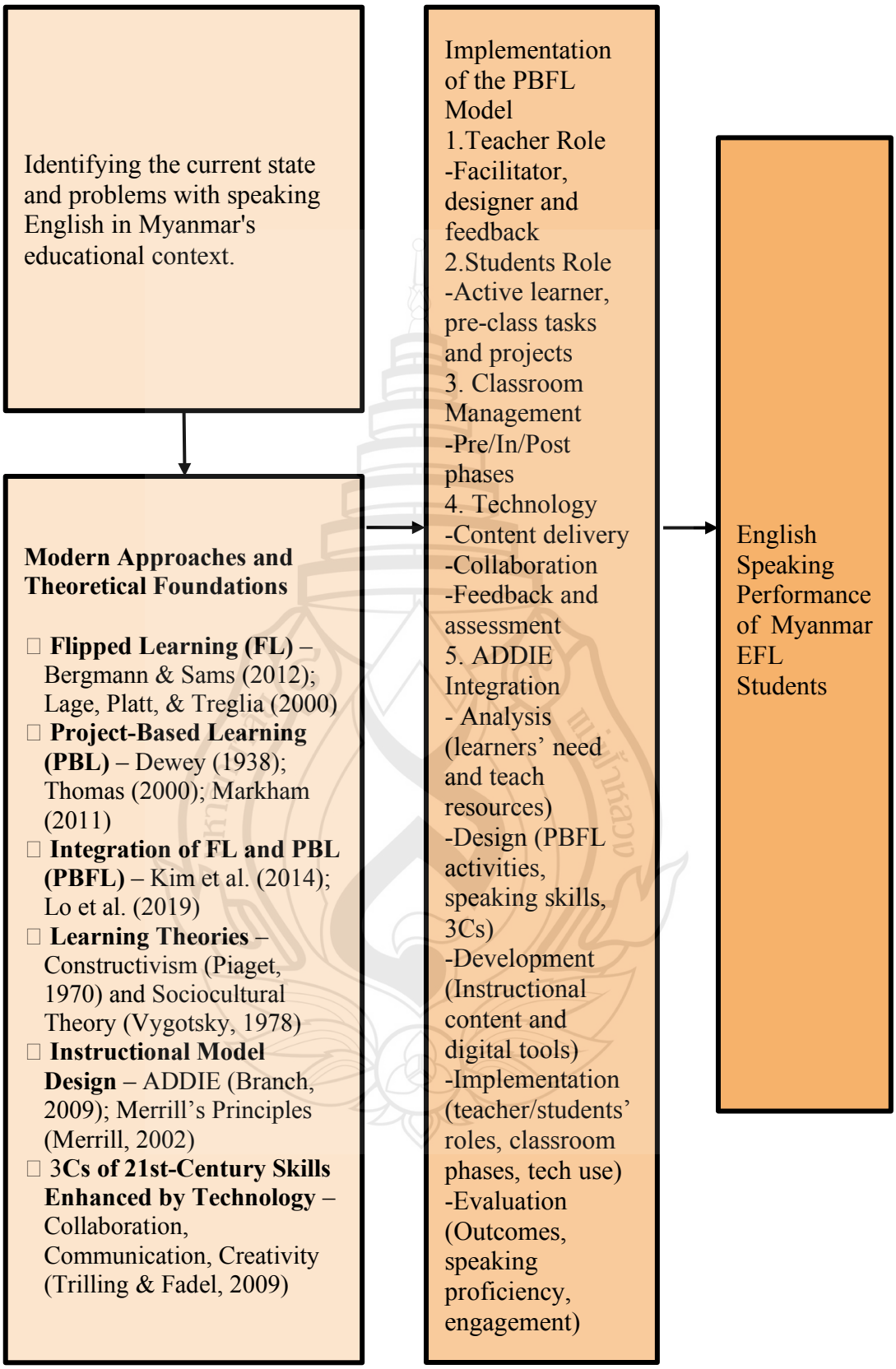


Figure 2.2 Conceptual Framework

Based on the conceptual framework described above, Figure 2.2 illustrates the interrelationships among the study's theoretical foundations, instructional design process, and anticipated learning outcomes. The framework begins with the integration of flipped learning and project-based learning principles, which are systematically structured through the ADDIE instructional design model. This process guides the implementation of the PBFL approach in the classroom, where students engage in collaborative project-based speaking activities supported by pre-class flipped learning preparation. Through this integrated approach, students are expected to develop essential 21st-century competencies, including communication, collaboration, and critical thinking. Consequently, the model not only enhances students' English speaking performance but also fosters positive perceptions toward English language learning, providing a comprehensive foundation for effective and meaningful learning experiences.

CHAPTER 3

METHODOLOGY

The aims of this study were to develop and evaluate a Project-Based Flipped Learning (PBFL) model designed to enhance the English speaking performance of Myanmar students. To achieve these objectives, a quasi-experimental design with one group was employed, comparing the outcomes of the PBFL model and traditional teaching across different periods. In addition, a mixed-method approach was applied, integrating both qualitative and quantitative data collection and analysis methods to enrich the research findings.

3.1 Research Design

Based on Campbell and Stanley's work (1963), which acknowledged various study designs within the quasi-experimental category, providing valuable insights into causal relationships, this study adopted a quasi-experimental design. Quasi-experiments, like actual experiments, test hypotheses concerning the effects of interventions that have been actively used or altered to create an effect (Shadish & Luellen, 2012). Given the nature of the study and the need to assess the effectiveness of the PBFL model, a quasi-experimental design was selected. This design facilitated the examination of changes in English speaking abilities within a single group of students who received the PBFL intervention. Data were collected through a one-group pre-test and post-test design, including oral proficiency tests and questionnaires on students' perceptions. Quantitative data were analyzed using statistical methods such as paired t-tests, while qualitative data underwent thematic analysis to identify emerging patterns and themes in students' perceptions and experiences with the PBFL model.

3.2 Participants and Setting

This study was conducted at a private university in Myanmar offering undergraduate programs in business and management. The university provides a Bachelor of Business Administration (BBA) program designed to equip students with foundational knowledge in business disciplines while emphasizing English language proficiency. Within the program, a general English course was offered to develop students' communication skills, particularly speaking abilities, which served as the context for implementing the PBFL model.

The population for this study consisted of 40 participants who had successfully passed the entrance examination, qualifying them for enrollment in the Bachelor of Business Administration (BBA) program at one of the private universities. However, improvements were needed to better prepare them for advanced coursework and enhance their overall English proficiency.

A purposive sampling method was employed to select one intact group of 40 students enrolled in the intensive English class under the BBA program. This group was exposed to two instructional approaches: The PBFL model and traditional instruction without the PBFL model. This approach allowed for a direct comparison between the two methods, thereby facilitating the evaluation of the PBFL model's effectiveness in improving students' English speaking abilities.

Before the implementation of the PBFL model, semi-structured interviews were conducted with one English teacher and ten students to explore existing challenges in traditional English teaching and learning. One English instructor and ten students from the same program were purposively selected for the interviews based on their availability and willingness to share their experiences. The insights gained from these interviews were used to identify the current problems and needs, which informed the development and design of the PBFL model.

The selection of one teacher and ten students for the interviews was based on purposive sampling criteria, including their direct involvement in the English course and willingness to provide in-depth insights. This sample size was considered sufficient to achieve data saturation, as participants shared similar academic backgrounds within

the same program. The inclusion of both teacher and student perspectives ensured a comprehensive understanding of the existing challenges, thereby enhancing the representativeness and relevance of the findings.

The use of a single intact class ensured that participants shared similar academic backgrounds, learning experiences, and English proficiency levels, which contributed to the homogeneity of the sample. This homogeneity enhances the internal consistency of the study and supports the representativeness of the sample within the context of the BBA program. Although the sample size was limited to one group, it is considered appropriate for quasi-experimental classroom-based research, where maintaining natural learning conditions is essential.

3.3 Research Instruments

Two types of instruments were used in this research. The instructional instruments included the PBFL model, lesson plans, and an instructional manual. The research instruments consisted of a semi-structured interview, a pretest and posttest, and a questionnaire. The components of the PBFL model were carefully aligned with the research instruments. Pre-class activities supported vocabulary and content preparation, in-class activities emphasized interactive speaking practice and collaboration, and post-class activities reinforced reflection and application. These components directly corresponded to the speaking assessment criteria and questionnaire constructs, ensuring consistency between instructional design and measurement of outcomes.

Each research instrument was designed to measure specific aspects of the study. The speaking pre-test and post-test assessed students' speaking performance across key components, including fluency, grammar, vocabulary, pronunciation, and interaction. The questionnaire measured students' perceptions of the PBFL model in terms of engagement, motivation, collaboration, critical thinking, and perceived improvement. The semi-structured interviews explored in-depth perspectives on challenges in English speaking and learning experiences. This alignment ensured that all instruments

collectively addressed the research objectives and provided comprehensive data for analysis.

Project-based Flipped Learning Model

To fulfill the second research objective, the primary aim of this study was to develop a customized PBFL model tailored specifically to enhance the speaking abilities of Burmese students. The PBFL model was designed to empower students to actively construct knowledge both inside and outside the classroom. Furthermore, the PBFL model was designed to support the development of speaking components such as fluency, vocabulary use, interaction, and confidence in communication. In the context of flipped classrooms, characterized by immersive and collaborative learner-content interactions, a key emphasis was placed on explicit knowledge acquisition as a significant learning outcome.

This research endeavored to provide a comprehensive framework for creating PBFL models. The instructional design considerations involved connecting various learning environments, establishing and orchestrating learning activities, and developing frames of reference before, during, and after live instruction, drawing upon diverse tools and methodologies (Driscoll, 2005). Essential components integrated into the PBFL model encompass inquiry-based learning, collaborative activities, the inclusion of authentic tasks, and the promotion of student-centered learning.

The PBFL model, consisting of three stages: pre-class, in-class, and post-class, was evaluated by three experts in curriculum, instruction, and English language using a questionnaire with qualitative and quantitative sections. Experts provided comments on ten components of the model and rated the stages and technology integration on a 5-point scale, which were converted into Index of Item–Objective Congruence (IOC) values.

1. Pre-class

Tasks that were traditionally conducted in face-to-face classroom settings were relocated to an asynchronous setting in the PBFL model. The teacher provided materials such as YouTube video presentations, teaching records, and relevant assessments online. Students had the flexibility to access and review the materials as needed to enhance their understanding and could practice on their own while watching the videos.

2. In-class

During in-class sessions, the teacher facilitated discussions, encouraged student-teacher interaction in English, and utilized technology such as learner response systems. The PBFL model also enhanced students' enthusiasm, creativity, and motivation in learning English, particularly speaking skills. This study aimed to improve students' speaking abilities by introducing this new PBFL model.

3. Post-class

In the flipped classroom, teachers had the opportunity to sustain student engagement outside of class time and measure learner progress before and after the asynchronous and synchronous components of the flipped approach.

The development of the PBFL model followed a systematic step-by-step process. First, a needs analysis was conducted through semi-structured interviews with one teacher and ten students to identify challenges in English speaking and limitations of traditional instruction. Second, the initial PBFL model was designed based on relevant theories, including flipped learning, project-based learning, and constructivist learning principles. Third, the model was validated by three experts in curriculum, instruction, and English language, who evaluated its appropriateness and alignment using a 5-point scale and the IOC method. Fourth, revisions were made based on expert feedback to improve clarity, feasibility, and alignment with learning objectives. Finally, the refined PBFL model was implemented in the classroom and evaluated for its effectiveness in enhancing students' English speaking abilities.

Lesson Plans and Instructional Manual

Before conducting the study, lesson plans were employed as a guideline for teachers during instruction, providing detailed information about the rationale, instructional materials, activities, the teacher's role, the students' role, assessment, the learning environment, and other valuable implementation suggestions. For instance, these suggestions included strategies for adapting the lesson plans to different proficiency levels of students and tips on addressing common challenges that teachers might encounter in the classroom. An instructional manual presented general information about the instructional model. Three experts in pedagogy, instruction, and English language assessed the appropriateness of the lesson plans and instructional manual (see Appendix I).

The instruments were evaluated by three experts using two procedures: a 5-point rating scale and the Item-Objective Congruence (IOC) method. The experts first rated each item on a 5-point scale (5 = highly appropriate, 1 = not appropriate) and provided comments and suggestions through open-ended questions. Their ratings were then converted into IOC values ranging from -1 to +1 to determine the congruence between each item and its intended objective. Items with IOC scores below 0.5 were revised based on expert feedback (see Appendix J).

Semi-structured Interview

Before applying the PBFL model, essential data were gathered through semi-structured interviews with teachers and students as part of research objective one. Students were asked about the problems they faced in English language learning, while teachers were asked about the current state of English teaching and any issues they encountered. The semi-structured interviews were designed to be flexible, allowing participants to elaborate on their responses while focusing on the research objectives. Open-ended questions encouraged detailed and descriptive answers, providing qualitative data that complemented the quantitative findings from the pre- and post-tests. To ensure the interview questions' relevance, clarity, and contextual validity, they were carefully reviewed and analyzed by three experts specializing in English prior to the interviews. This preparatory step provided valuable insights that informed the implementation of the PBFL model and enhanced the effectiveness of the research (see Appendix I).

The instruments were evaluated by experts using open-ended questions and the Item-Objective Congruence (IOC) method. The experts provided comments and suggestions through open-ended questions, and the IOC method was used to score the questionnaire items on a scale of -1 to +1. Items with a score of less than 0.5 were re-evaluated. The rating scales were 1 (consistent), 0 (questionable), and -1 (incongruent). (see Appendix J)

Pre and Post-tests

The study incorporated a pre- and post-test design based on Arikunto and Suharsimi's approach (2010). The pre-test was administered after one week of traditional teaching, prior to implementing the PBFL classroom style in the English speaking course, while the post-test was administered after the instructional

intervention to assess any improvements in the students' English speaking skills. The pre-test served as a baseline measure of participants' initial proficiency, and the post-test measured the changes resulting from the PBFL model. Both tests used the same framework and scoring rubric, ensuring consistency and comparability. The tasks included speaking prompts, dialogue exercises, and performance-based activities reflecting real-life communication, making them valid and reliable tools for assessing students' speaking abilities. This assessment provided valuable data on the effectiveness of the instructional intervention in enhancing students' language proficiency in speaking, aligning with research objective three. The detailed pre- and post-test speaking assessment framework, including the test prompts and scoring rubric, is provided in the Appendix I.

The instruments were evaluated by experts using open-ended questions and the Item-Objective Congruence (IOC) method. The experts provided comments and suggestions through open-ended questions, and the IOC method was used to score the questionnaire items on a scale ranging from -1 to +1. Items with a score of less than 0.5 were re-evaluated. The rating scales were 1 (consistent), 0 (questionable), and -1 (incongruent) (see Appendix J).

The speaking assessment was conducted in a structured format consisting of three parts. Part 1 involved a short interview with general questions to assess students' ability to communicate basic information. Part 2 required students to perform a short speaking task based on a given prompt, with a brief preparation time of 1–2 minutes. Part 3 involved a discussion or extended response task to evaluate students' ability to express opinions and engage in more complex communication.

All speaking tests were conducted in a classroom setting and audio-recorded to ensure accuracy in scoring. Each student was assessed individually, and the duration of each test was approximately 10–15 minutes. The same format and conditions were maintained for both pre-test and post-test to ensure consistency and comparability.

The speaking performances were assessed using an analytic scoring rubric covering five components: fluency, grammar accuracy, vocabulary use, pronunciation, and interaction. Each component was rated on a defined scale to provide detailed evaluation of students' speaking abilities.

To ensure scoring reliability, two trained raters independently evaluated the recorded performances. Prior to scoring, the raters underwent a calibration session to standardize their understanding of the rubric criteria. Inter-rater reliability was checked by comparing scores, and any discrepancies were discussed and resolved to ensure consistency in scoring.

Improvement in speaking performance was defined as an increase in the overall rubric scores across the assessed components rather than achieving native-like proficiency. The speaking assessment rubric was developed based on established frameworks for evaluating speaking proficiency in English language learning. The selected components, fluency, grammar, vocabulary, pronunciation, and interaction reflect key dimensions of communicative competence. The rubric was reviewed by three experts to ensure content validity and alignment with the research objectives. Equal weighting was assigned to each component to provide a balanced assessment of students' speaking performance. The speaking test was designed to measure key components of speaking ability, including fluency, grammatical accuracy, vocabulary range, pronunciation, and interactive communication.

Questionnaire

A questionnaire was employed to assess student perception of the instructional model. The questionnaire was designed for students, with a primary focus on gathering insights about their learning experiences and perceptions of the instructional model. It consisted of two main parts: (1) Demographic Information, which included six items such as gender, age, academic level, major, English proficiency level, and number of years studying English; and (2) Perception toward the PBFL Model, which included twenty items measuring students' agreement with statements related to learning resources, engagement, collaboration, critical thinking, technology integration, and real-world application. In addition, the questionnaire included one open-ended question to allow students to provide comments, suggestions, or additional insights regarding their learning experiences.

The questionnaire was structured to include both closed- and open-ended questions, providing a combination of quantitative and qualitative data. Likert-scale items allowed standardized measurement of students' perceptions, while the open-ended question enabled them to provide additional insights or suggestions. The

questionnaire was carefully designed to align with the research objectives, focusing on learning resources, engagement, collaboration, critical thinking, technology integration, and real-world application. Expert evaluation ensured its clarity, relevance, and reliability, making it a valid instrument for assessing student perception of the PBFL model. By gathering feedback from students, this survey provided valuable insights into their overall perception of the instructional model and its impact on their English speaking learning experiences. The questionnaire data played a crucial role in assessing student perception of the PBFL model in enhancing their English speaking abilities, as outlined in research objective four (see Appendix I).

The instruments were evaluated by experts using open-ended questions and the Item-Objective Congruence (IOC) method to ensure validity and reliability. The experts provided comments and suggestions through open-ended questions, and the IOC method was applied to score the questionnaire items on a scale of -1 to +1. Items with a score of less than 0.5 were re-evaluated. The rating scale was as follows: 1 (consistent), 0 (questionable), and -1 (incongruent) (see Appendix J). This expert evaluation ensured that the questionnaire accurately reflected the research objectives and would yield reliable data for the study. The questionnaire measured key constructs such as student engagement, motivation, collaboration, critical thinking, technology integration, and perceived improvement in speaking ability.

Some items with IOC values below 0.5 were revised based on expert feedback. For example, unclear instructions in speaking task prompts were simplified, and several questionnaire items were reworded to improve clarity and alignment with the research objectives.

3.4 Data Collection

Both qualitative and quantitative data were collected in this research study. Qualitative data were obtained from semi-structured interviews with one teacher and ten students to identify challenges in English-speaking teaching and learning. Quantitative data, specifically the pre and post-tests scores, were analyzed to assess the

impact of the PBFL model on English-speaking abilities. Additionally, data on student perception were collected from the questionnaire.

1. Semi-Structured Interviews: Conducting semi-structured interviews with teachers and students provided valuable qualitative data. These interviews helped identify the current state and problems in English-speaking teaching and learning. They also captured insights on the implementation of PBFL, including student needs, teacher perspectives, and potential barriers. The interviews were conducted before the implementation of PBFL to gather comprehensive feedback and identify areas for improvement.

2. Pre and Post-tests: Administering pre- and post-tests allowed the assessment of the impact of the PBFL model on English speaking abilities. The pre-test established a baseline measurement of students' speaking skills before the intervention. The post-test was conducted after the completion of the PBFL project to measure any improvements in speaking abilities. Comparing the pre- and post-test scores provided quantitative data to analyze the effectiveness of the PBFL model.

3. Questionnaires: The questionnaire served as a tool to collect quantitative data on students' perception of the PBFL model. It included items related to student engagement, motivation, learning outcomes, and specific aspects of PBFL such as collaboration and real-world relevance. Administering the questionnaire after the completion of the PBFL project provided insights into students' experiences and allowed for the evaluation of the model's effectiveness from their perspective.

Overall, the combination of semi-structured interviews, pre- and post-tests, and questionnaires provided a comprehensive data set that combined qualitative insights with quantitative measurements. This facilitated a thorough analysis of the impact of the PBFL model on English speaking abilities and its effectiveness.

3.5 Data Analysis

For quantitative data, the pre- and post-test scores measuring students' English-speaking abilities were analyzed using appropriate statistical techniques. Specifically, a paired-sample t-test was employed to compare the mean scores of each speaking

component before and after the implementation of the PBFL model, determining whether the improvement was statistically significant. In addition, Cohen's d was calculated to measure the effect size and indicate the magnitude of the improvement in students' speaking performance.

The data collected from the questionnaire, which measured students' perceptions of the PBFL model, were analyzed using descriptive statistics, including mean and standard deviation, to summarize responses to each item. This analysis provided an overview of students' perception levels and their overall evaluation of the PBFL model's effectiveness.

The interpretation of the Likert scale responses was based on the following criteria:

4.21–5.00 = Very high

3.41–4.20 = High

2.61–3.40 = Moderate; 1.81–2.60 = Low; 1.00–1.80 = Very low

These criteria were used to interpret students' perception levels toward the PBFL model.

For qualitative data, information obtained from the semi-structured interviews with teachers and students underwent thematic analysis, following the six-step procedure proposed by Braun and Clarke (2006). First, the interviews were transcribed from audio recordings or written notes to ensure readability and accuracy (Step 1: Familiarization with the data). Next, initial codes were generated to identify interesting features in the data (Step 2: Generating initial codes). The codes were then examined and grouped into broader patterns to form themes (Step 3: Searching for themes). Subsequently, the themes were reviewed and refined to ensure they accurately reflected the data (Step 4: Reviewing themes). Clear definitions and names were assigned to each theme (Step 5: Defining and naming themes), and finally, the findings were reported with illustrative quotes and interpretations (Step 6: Producing the report). This approach allowed the identification of recurring themes and meaningful insights related to the challenges of English-speaking teaching and learning as perceived by teachers and students.

For quantitative data analysis, IBM SPSS Statistics version 25 was used, as it is a widely recognized tool for statistical analysis. For qualitative data, thematic analysis

was conducted manually or with the support of NVivo version 12 qualitative data analysis software. The combination of quantitative and qualitative methods provided a comprehensive understanding of the impact and effectiveness of the PBFL model on students' English-speaking abilities, as summarized in Table 3.1.

Table 3.1 Data Collection and Data Analysis

Research Objective / Question (RO/RQ)	**Research Instruments (Data Collection)**	**Participants (Data Collection)**	**Time Duration (Data Collection)**	**Data Analysis**
To identify the state and problems of Burmese students in developing their English speaking abilities	Semi-structured interviews	One teacher and ten students	Before the semester (pre-semester, prior to PBFL model development)	Qualitative analysis: Transcription and thematic analysis to identify challenges in English speaking teaching and learning
To develop a project-based flipped learning (PBFL) model tailored to Burmese students' English speaking abilities	Lesson plans and instructional manual; Expert assessment	Experts	Pre-semester: Week 0–1 (drafting lesson plans/manuals after interviews); Week 1–2 (expert review and feedback before PBFL implementation)	Expert evaluation of lesson plans and manuals for appropriateness, clarity, and alignment with learning objectives

Table 3.1 (continued)

Research Objective / Question (RO/RQ)	**Research Instruments (Data Collection)**	**Participants (Data Collection)**	**Time Duration (Data Collection)**	**Data Analysis**
To examine the effectiveness of the developed PBFL model in improving English speaking abilities	Pre-test & Post-test assessments	Forty students	Pre-test: Week 6 (after one week of traditional teaching, before PBFL) Post-test: Week 16 (after PBFL project completion)	Quantitative analysis: Paired-sample t-test, descriptive statistics, and effect size calculation to determine improvements in speaking abilities
To determine student perception of the PBFL model in enhancing English speaking abilities	Questionnaire	Forty students	Week 16 (after PBFL project completion)	Quantitative analysis: Descriptive statistics to summarize student perception levels of the PBFL model

3.6 Ethical Consideration of the Research

Prior to data collection, ethical approval for the study, *The Development of Project-Based Flipped Learning Model to Enhance Burmese Students' English Speaking Abilities* (Protocol code: EC 24145-10), was obtained from the university's

Ethics Committee (EC) (see Appendix for the approval certificate). Informed consent was secured from all participants, including the teacher and students before collection data. The study's objectives, procedures, potential risks and benefits, and participants' rights were clearly explained. Participation was voluntary, and participants could withdraw at any time without consequence.

To ensure the privacy and confidentiality of participants, all data collected were treated with the utmost care. Participant data were securely stored and anonymized, with any identifying information removed or concealed in reports and publications. Strict data security measures were in place to prevent unauthorized access.

Furthermore, the study prioritized the physical and emotional well-being of participants, taking steps to minimize any potential risks or discomfort associated with their involvement. The research acknowledged and respected the diverse cultural and linguistic backgrounds of the participants, with the study design, materials, and procedures adapted to be culturally sensitive.

Additionally, necessary approvals and permissions were obtained from relevant authorities or institutions, especially when conducting research in different cultural or educational settings. The study strictly adhered to their guidelines and regulations to ensure ethical compliance throughout the research process.

3.7 Research Procedure

The research procedure unfolded through a series of key stages. It began with identifying the current state and challenges in English speaking among Burmese students. The next step involved developing a tailored PBFL model. The study then examined the effectiveness of the PBFL model and determined student perceptions.

The literature review and conceptual framework stage involved a comprehensive review of existing theories and practices related to English speaking challenges. Expert consultation followed, validating research instruments and informing the development of semi-structured interviews and the PBFL model. Afterwards, expert validation and model refinement took place, ensuring the model aligned with both expert insights and literature findings. A pilot study was conducted

to test feasibility and redesign the instruments, leading to the full-scale implementation of the PBFL model. Finally, the research concluded by assessing student perception of the PBFL model using a questionnaire. This streamlined procedure was designed to investigate, develop, implement, and evaluate an innovative solution for English speaking challenges among Burmese students.

To ensure consistency in the implementation of the PBFL model, the same teacher conducted all instructional sessions using standardized lesson plans and instructional materials. The duration, learning activities, and assessment procedures were kept consistent throughout the study. Regular monitoring and adherence to the instructional manual ensured that the PBFL model was implemented as intended across all sessions.

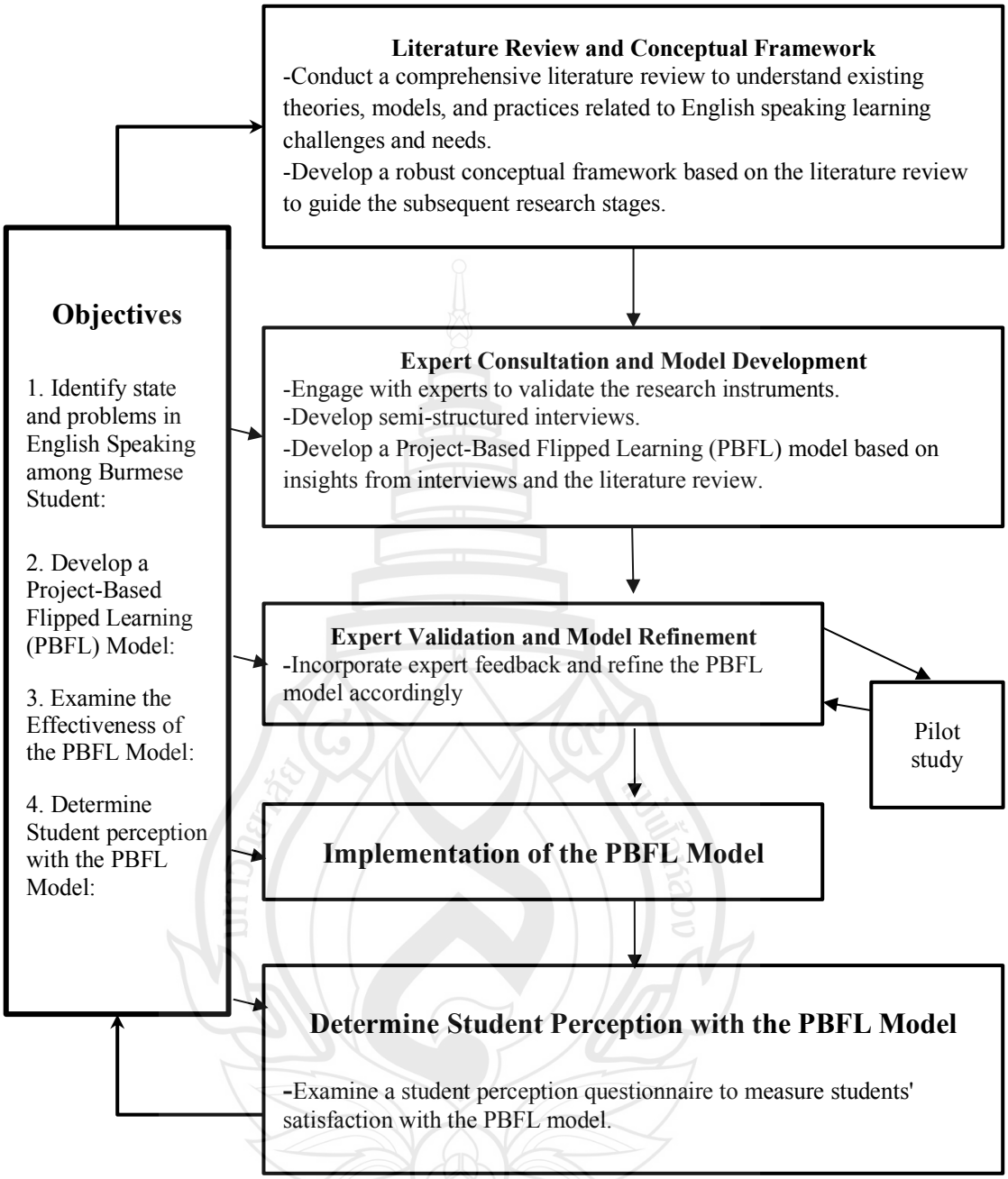


Figure 3.1 Research Procedure of this Study

CHAPTER 4

RESULTS OF THE STUDY

This chapter presents the comprehensive findings of the study, organized according to the four research objectives and consistent with the research methodology described in Chapter III. The study aimed to develop and evaluate a PBFL model to enhance Burmese students' English speaking abilities. The specific objectives were to identify the state and problems of Burmese students in developing their English speaking abilities, to develop a PBFL model tailored to the Burmese students' English speaking abilities, to examine the effectiveness of the developed PBFL model in improving the English speaking abilities of Burmese students, and to determine students' perceptions of the PBFL model in enhancing their English speaking abilities.

The results are derived from multiple data sources, including pre- and post-tests, student surveys, and semi-structured interviews, providing both quantitative and qualitative insights into the model's effectiveness. Triangulating these data sources enhances the validity of the findings by capturing both measurable improvements in speaking performance and learners' experiences and perceptions.

Organizing the findings according to the research objectives ensures a coherent presentation that directly addresses the study's aims and demonstrates how the PBFL model responds to the identified challenges in Burmese students' English speaking instruction. Subsequently, the findings are presented in four main sections, as follows: the current state and problems in developing Burmese students' English speaking abilities, the development of the PBFL model, the effectiveness of the PBFL model in improving English speaking abilities, and students' perceptions of the PBFL model.

4.1 Finding One: Current State and Challenges in English Speaking Instruction

This section presents the current situation of English speaking instruction and the challenges faced by Burmese students and teachers in the classroom. The findings were obtained through semi-structured interviews with one English teacher and ten students who had already passed the matriculation examination and shared a similar English proficiency level. The analysis revealed four major themes: (1) dominance of teacher-centered instruction, (2) psychological barriers to speaking, (3) lack of authentic speaking contexts, and (4) underutilization of technology in teaching and learning.

Dominance of Teacher-Centered Instruction

The semi-structured interview data indicate a strong dominance of teacher-centered instruction in English speaking lessons. According to the participants, the Initiation-Response-Feedback (IRF) pattern was the predominant mode of interaction, where teachers typically initiated the discourse, students provided brief or one-word responses, and feedback was primarily limited to evaluating correctness rather than promoting elaboration, explanation, or open discussion. These findings highlight key problems in the current teaching practices that needed to be addressed before developing the PBFL model.

As a result, students had minimal opportunities to participate actively, initiate conversation, or engage in spontaneous or extended speaking. Classroom activities were largely controlled by the teacher, and students' roles were mostly passive, focused on listening and repeating rather than constructing language knowledge. Furthermore, speaking practice was often limited to controlled exercises, such as reading scripted dialogues or answering closed-ended questions, which promoted accuracy but did not foster fluency or communicative competence. Observation notes and interview data suggested that this traditional approach restricted students' confidence and critical speaking skills necessary for real-life communication.

The distribution of instructional time, as shown in Table 4.1, further illustrates this imbalance.

Table 4.1 Distribution of Instructional Time

Instruction Type	Frequency	Percentage
Teacher-led explanation	34	85%
Student-centered tasks	6	15%

In Table 4.1, 85% of the total instructional time was devoted to teacher-led explanations, with only 15% allocated to student-centered activities such as pair work, group discussions, or communicative games. Much of the teacher-led time was focused on grammar instruction and vocabulary memorization, often to prepare students for exams. While such focus is not inherently negative, it often comes at the cost of speaking fluency development, as illustrated in the excerpt below.

Teachers and students echoed this trend in their interviews:

Teacher : “The focus on grammar and vocabulary is essential for exam preparation, but it leaves little room for students to practice speaking and develop fluency.”

Student 1 : “Most of the class time is spent listening to the teacher. We don’t speak much unless it’s part of a controlled exercise.”

Student 2 : “I feel nervous to speak up because the teacher does most of the talking. I need more chances to practice.”

The data indicate a noticeable mismatch between the instructional practices observed and the intended goal of fostering communicative competence, underscoring the need for more student-centered learning approaches. Thematic analysis revealed that students had minimal opportunities to speak during English lessons, as reported by both teachers and students. Participants noted that teacher talk dominated most of the class time, particularly in grammar-focused lessons, while vocabulary-focused lessons allowed slightly more student participation. Such limited speaking engagement suggests that students had insufficient opportunities to develop fluency and confidence in authentic communication. These findings highlight the necessity of introducing a more interactive and learner-centered instructional model such as the PBFL approach to address these pedagogical gaps.

Psychological Barriers to Speaking

The findings from semi-structured interviews revealed that these learners face significant emotional challenges in speaking English. Of these students, six students (60%) admitted experiencing anxiety related to pronunciation, while two students (20%) expressed fear of making grammatical errors in front of others. These fears often manifested as silence, reluctance to participate, and avoidance of voluntary speaking opportunities in class. An additional two students (20%) reported a general lack of confidence when engaging in English conversations, as shown in table 4.2.

Table 4.2 Reported Psychological Barriers

Barrier	Frequency	Percentage
Fear of pronunciation	6	60%
Fear of grammatical errors	2	20%
Lack of confidence	2	20%
Total	10	100%

During observations, it was evident that most students avoided volunteering to answer questions or initiate conversations. Even when prompted, their responses were typically short and hesitant. The teacher also noted that many students tended to rely on memorized phrases rather than attempting to express original ideas in English. Such avoidance behavior stems largely from the fear of negative evaluation, which is common among EFL learners in traditional classroom environments, according to the excerpt below.

The interview data reflected similar patterns:

Teacher: “Students often freeze during speaking activities because they worry about their accents or making grammatical mistakes.”

Student 3: “I’m always afraid of making mistakes in front of the class, especially with pronunciation.”

Student 4: “When I make a mistake, I feel embarrassed and don’t want to continue speaking.”

These findings align with the principles of affective filter theory, which suggests that anxiety and lack of confidence can block language input and production (Krashen,

1982). The classroom context observed in this study often lacked supportive, low-stress environments where students felt comfortable taking risks in speaking English. As a result, students' oral participation remained very limited, and their progress in fluency development was restricted.

Moreover, the teacher's dominant corrective approach immediately pointing out grammatical or pronunciation errors further reinforced students' fear of failure. While correction aims to improve accuracy, excessive emphasis on errors discourages risk-taking and spontaneous use of language.

The cumulative impact of these affective barriers significantly reduces learners' willingness to communicate, highlighting the need to design classroom environments that promote emotional safety and encourage risk-taking in speaking practice. Anxiety was observed to limit voluntary participation, with only a few students initiating conversation without prompting. Interviews further indicated that peer comparison intensifies fear, as students often judge themselves against more confident classmates. To address these challenges, it is recommended to create psychologically safe learning environments, provide appropriate scaffolding, and integrate peer support to reduce communication apprehension and enhance students' confidence in speaking.

In summary, psychological barriers such as anxiety, fear of mistakes, and low self-confidence emerged as significant obstacles to students' speaking development. These findings highlight the need for instructional strategies that build learner confidence through positive feedback, peer interaction, and gradual exposure to authentic communication tasks. The PBFL model, with its collaborative and project-based learning structure, provides a promising alternative that can lower anxiety and promote more active engagement in speaking activities.

Lack of Authentic Contexts for Speaking Practice

The third major issue identified through semi-structured interviews was the lack of authentic contexts for English speaking practice. Most speaking activities in the observed lessons were highly structured, textbook-based, and exam-oriented, leaving limited opportunities for students to use English in meaningful, real-life communication.

According to participants, classroom activities were primarily textbook-based dialogues or vocabulary drills with predetermined structures. Observed tasks included

scripted role plays, often limited to 3–5 turns per student, while only a few lessons involved any form of spontaneous interaction, which was restricted to 5-7 minutes per session. While these activities may support form-focused instruction, they often fail to simulate real-life conversation, hindering the transfer of classroom skills to authentic contexts.

During lessons, students primarily practiced reading aloud dialogues, answering comprehension questions, or substituting words into sentence patterns. While these exercises reinforced grammar and pronunciation, they did not foster creative language use or communicative competence. Students rarely engaged in situational speaking tasks such as role-plays, debates, or discussions that required them to express personal opinions or solve problems collaboratively.

Based on the semi-structured interviews, students reported that such exercises felt disconnected from how English is used in daily life, as shown the excerpt below.

Student 5: “The dialogues in the textbook lack authenticity and do not reflect real-life communicative situations. We don’t speak like that in daily life.”

Student 6: “I’d prefer tasks that mirror real conversations. The textbook drills are not effective for actual speaking practice.”

Teacher: “The speaking tasks do not provide authentic opportunities for meaningful communication.”

These responses illustrate that students recognize the gap between classroom language and real-world communication. The controlled, accuracy-focused activities limited their ability to transfer classroom learning to authentic settings, thereby reducing motivation and confidence.

This finding is consistent with the Communicative Language Teaching (CLT) approach, which emphasizes the importance of meaningful interaction and the use of language for real purposes. However, the classroom practices observed in this study showed minimal integration of communicative or project-based tasks. Instead, the learning process remained focused on rote memorization, repetition, and grammatical drills, providing limited scope for creativity and self-expression.

Without authentic contexts, students are unable to develop the essential sub-skills of speaking, such as turn-taking, negotiation of meaning, and discourse

management. Consequently, their ability to communicate effectively outside the classroom remains underdeveloped.

Addressing this issue requires the implementation of instructional models that create realistic communication opportunities and promote the functional use of English. The PBFL model, which integrates technology and collaborative projects, can effectively bridge this gap by engaging students in meaningful tasks that simulate authentic communication scenarios both inside and outside the classroom.

Underutilization of Technology

The final theme emerging from classroom observations and interview data was the underutilization of technology in English speaking instruction. Although digital tools such as mobile applications, online videos, and learning platforms are increasingly accessible, their integration into the classroom remains minimal. Both teachers and students primarily relied on traditional materials such as textbooks, whiteboards, and printed handouts.

During classroom observations, there was little evidence of technology-assisted language learning activities. The teacher occasionally used recorded audio dialogues for listening practice, but these were limited to short segments from the textbook. No interactive platforms or multimedia tools were employed to support speaking development. Students rarely used digital tools for pronunciation practice, recording their voices, or engaging in online speaking activities.

Table 4.3 Teacher Use of Technology in Speaking Lessons

Participant	N	Frequency of Technology Use	Key Comments
Teacher	1	Rarely or never	"We know there are apps and tools that could help students practice speaking, but we don't know how to use them."
Students	2	Occasionally	"We could benefit from using apps like Duolingo to practice speaking outside of class." Student 7 "I think using recording apps like Flipgrid would help us improve our speaking. It's hard to improve without feedback." Student 8

Observations showed that no technology-integrated speaking tasks were implemented during lessons. Students expressed interest in using digital tools, particularly for pronunciation practice and peer feedback. Table 4.3 highlights that both teacher and student responses point to a significant missed opportunity to utilize readily available technological resources in the language classroom. Tools such as voice recording apps, speech recognition software, and video discussion platforms could provide students with additional self-paced speaking practice while enabling personalized feedback and reflection. These findings reinforce the need for the PBFL model to strategically incorporate digital tools to enhance speaking practice and foster greater student engagement. The interview responses reinforced this finding, as shown the excerpt below:

Teacher: “I want to use technology, but we don’t have a stable internet or enough devices for all students. Sometimes I play audio files, but that’s all.”

Student 7: “I usually use my phone for entertainment. I never use apps for English speaking because I don’t know which ones are useful.”

Student 8: “I think technology can help. If we could record our voices or join online discussions, it would be more interesting.”

The data suggest that the limited technological integration in speaking instruction is influenced by three main factors:

1. Lack of resources and infrastructure, such as stable internet connections, projectors, or computers.
2. Limited access to technology and teaching resources, which restricts confidence in applying technology for language teaching.
3. Absence of institutional policy or support promoting technology-enhanced pedagogy.

As a result, students miss valuable opportunities for self-directed and interactive language learning outside the classroom. Modern tools such as voice recording applications, speech recognition software, and video discussion platforms could help learners practice speaking independently, monitor their pronunciation, and receive feedback. However, such tools were not integrated into the current learning environment.

These findings are consistent with studies emphasizing that effective language instruction in the 21st century requires technology-supported communicative practice (Reinders & Benson, 2017). Without such integration, students remain confined to passive learning modes, which limit both engagement and fluency development.

Therefore, the underutilization of technology represents a critical gap in English speaking instruction in the observed context. Incorporating digital resources and online collaboration tools could significantly enrich students' learning experiences, promote autonomy, and extend practice opportunities beyond classroom boundaries. This gap reinforces the relevance of the PBFL model, which intentionally integrates digital tools to create dynamic, learner-centered, and technology-supported speaking environments.

Summary of Findings

The data reveal a multifaceted depiction of the current state of English speaking instruction in the semi-structured interview. Instruction remains predominantly teacher-centered, thereby limiting opportunities for student participation and communicative practice. Psychological barriers, e.g., fear of pronunciation errors and low self-confidence, are prevalent and significantly hinder learner engagement. Speaking activities frequently lack authenticity and fail to replicate real-world communicative contexts, thereby diminishing learner motivation and practical skill development. Furthermore, digital tools with the potential to enhance speaking practice are insufficiently utilized, despite the widespread availability of technological resources.

These findings underscore the urgent need for pedagogical reform. To address these challenges, the adoption of a more communicative, student-centered approach rooted in authentic contexts and supported by technology is essential. The PBFL model offers a promising framework to achieve this goal. By integrating pre-class digital learning, collaborative project-based activities during class, and post-class reflection and practice tasks, the PBFL model can enhance student engagement, foster practical communication skills, and build confidence in English speaking.

4.2 Finding Two: Development and Validation of the PBFL Model

This section presents the development of the PBFL model as a strategic response to the pedagogical challenges observed in English speaking instruction. The model was designed to address key issues such as limited student participation, the dominance of teacher-centered practices, insufficient integration of technology, and low learner confidence in oral communication. To overcome these challenges, the PBFL model incorporates a structured sequence of pre-class, in-class, and post-class activities that aim to enhance student engagement, promote practical communication skills, and foster learner autonomy. Its design was further refined and validated through consultation with experts in English language teaching, ensuring both theoretical soundness and practical applicability in the classroom.

Theoretical Framework

The PBFL model is underpinned by three complementary theories:

Flipped Learning (Bergmann & Sams, 2012): This framework supports the shift from passive classroom instruction to active in-class learning. It allows students to access instructional content—such as video lectures—outside the classroom and apply it during face-to-face sessions through interactive tasks.

Project-Based Learning (Thomas, 2000): This approach provides a meaningful and engaging context for language use through collaborative projects. It fosters critical thinking, creativity, and real-world communication, helping learners develop speaking fluency.

Sociocultural Theory (Vygotsky, 1978): Rooted in the belief that learning occurs through social interaction, this theory emphasizes the importance of peer collaboration, scaffolding, and the Zone of Proximal Development (ZPD). The PBFL model integrates these principles by promoting peer-supported speaking tasks in both digital and physical environments.

These theoretical foundations address the identified gaps in the existing instructional practices by promoting autonomous learning, contextualized language use, and cooperative engagement.

Model Architecture

The PBFL model is organized into three interconnected stages: pre-class, in-class, and post-class as illustrated in Figure 4.1. Each stage includes specific activities (Table 4.5) that were intentionally designed to address the problems identified in Finding One, which are summarized in Table 4.4. In the pre-class stage, students receive input through video lectures, voice/video tasks submitted via Google Classroom, and short quizzes, which prepare them with essential grammar, vocabulary, and pronunciation knowledge. During the in-class stage, students engage in role plays, simulations, group projects, and peer feedback activities that provide authenticity, reduce psychological barriers, and increase communicative interaction. The post-class stage deepens learning through blogs, e-portfolios, and final presentations, allowing students to reflect, consolidate knowledge, and demonstrate progress.

Together, these elements form a cyclical framework where instructional strategies, technological tools, and communicative tasks work in alignment. The activities shown in Tables 4.4-4.8 demonstrate how each component directly responds to issues such as lack of authentic speaking practice, anxiety toward speaking, and underuse of technology. This alignment ensures that the PBFL model not only guides students from preparation to application and reflection but also systematically enhances fluency, confidence, and real-world communicative competence.

Alignment of PBFL Components with Identified Problems

The activities in the PBFL model were designed to directly address the problems identified in Finding One, which summarized the main challenges students faced during the needs analysis phase. These challenges included lack of authentic speaking opportunities, psychological barriers to communication, and minimal use of technology in learning. Table 4.4 presents how each PBFL component responds to these problems.

Table 4.4 Alignment of PBFL Components with Identified Problems

Identified Problem	PBFL Response
Lack of authenticity	Role plays, simulations, and real-world projects create meaningful communicative contexts.
Psychological barriers to speaking	Voice/video tasks via Google Classroom and peer collaboration build confidence and lower anxiety through repeated, low-pressure practice.
Underutilization of technology	Integration of digital tools (videos, Google Classroom, blogs, e-portfolios) promotes blended learning and technological literacy.

In summary, the PBFL model functions as a dynamic, cyclical framework that moves learners from preparation (input)to interaction (application) and finally to reflection (consolidation). Through these interconnected stages, students experience a balance of autonomy, collaboration, and performance, which collectively enhance their English speaking proficiency in both academic and real-world contexts.

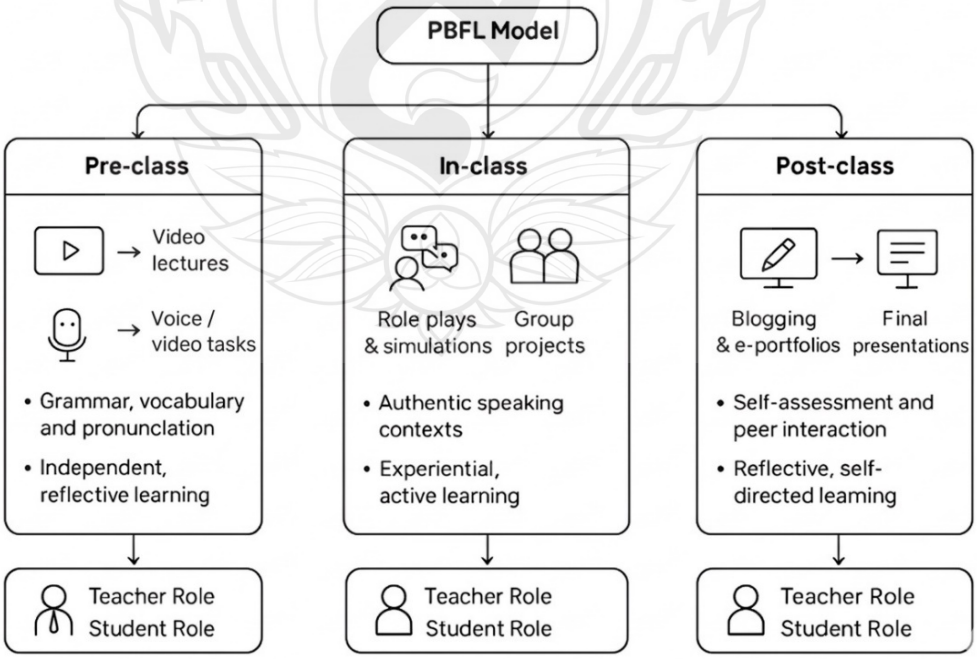


Figure 4.1 PBFL Model Framework: Pre-Class, In-Class, and Post-Class Stages

Table 4.5 Summary of PBFL Model Activities

Stages	Activities	Learning Objectives
Pre-class	Video lectures (5–7 min)	Covers grammar, vocabulary, and pronunciation essentials
	Voice/video tasks (submitted via Google Classroom)	Allows independent speaking practice and self-monitoring
	Quizzes & journals	Checks comprehension and encourages reflective thinking
In-class	Role plays & simulations	Provides authentic speaking contexts (e.g., interviews, debates)
	Group projects	Includes podcasting, surveys, interviews, and presentations
	Peer feedback	Encourages collaborative reflection and language development
Post-class	Blogging & e-portfolios	Facilitates self-assessment and peer interaction
	Final presentations	Showcases students' progress and fluency

Based on the problems identified in Finding One, each component of the model was strategically designed to address the challenges, including the lack of authentic speaking opportunities, psychological barriers to communication, and limited use of technology.

Table 4.6 PBFL Model: Roles, Approaches, and Progress Indicators

Stage	**Activities**	**Teacher Role**	**Student Role**	**Teaching Approach**	**Learning Approach**	**Progress Indicators / How Students Know Their Progress**
Pre-class	Video lectures (5–7 min)	Provides content and sets objectives	Watches and takes notes; prepares for class	Flipped learning	Self-directed learning	Understanding of grammar, vocabulary, and pronunciation
	Voice/video tasks (submitted via Google Classroom)	Assigns tasks, guides self-monitoring	Practices speaking independently, records voice	Student-centered, communicative	Independent, reflective learning	Ability to self-assess pronunciation and fluency over recordings
	Quizzes & journals	Creates and evaluates quizzes and prompts	Completes quizzes and reflective journals	Formative assessment, flipped	Reflective, self-directed learning	Comprehension checks, reflection on learning
In-class	Role plays & simulations	Facilitates, provides scaffolding and feedback	Participates actively, applies language skills	Project-Based Learning, communicative	Experiential, active learning	Teacher feedback, peer observation, immediate application of skills

Table 4.6 (continued)

Stage	Activities	Teacher Role	Student Role	Teaching Approach	Learning Approach	Progress Indicators / How Students Know Their Progress
	Group projects	Guides project process, monitors collaboration	Collaborates, communicates, completes tasks	Project-Based Learning	Collaborative, experiential	Peer feedback, project outcomes, collaborative problem-solving
	Peer feedback	Observes and mediates discussions	Provides and receives feedback	Collaborative learning	Reflective and social learning	Peer comments, improved task performance
Post-class	Blogging & e-portfolios	Reviews and provides feedback	Reflects on learning, uploads evidence	Reflective and technology-integrated	Reflective, self-directed, autonomous	Documentation of progress, peer interaction
	Final presentations	Evaluates performance and progress	Presents achievements and improvements	Student-centered, communicative	Demonstrative, reflective	Teacher evaluation, self-assessment, demonstration of fluency

Table 4.6 outlines how the PBFL model operates across the pre-class, in-class, and post-class stages by specifying the roles of teachers and students, the instructional and learning approaches applied, and the indicators used to measure students' progress. This table demonstrates the internal structure of the model, showing how each activity is supported by appropriate pedagogical principles and how learners are guided toward greater autonomy, collaboration, and communicative competence. Therefore, by presenting these components together, Table 4.6 illustrates the alignment between instructional design and learning outcomes, clarifying how students understand their progress at each stage of the PBFL cycle.

Stage 1: Pre-Class – Preparation and Input Building

The pre-class stage consists of video lectures, voice/video tasks (submitted via Google Classroom), and comprehension quizzes with reflective journals. This stage aims to equip students with the linguistic input and confidence required for communicative engagement during class. First, students watch short, focused video lectures (approximately five to seven minutes) created by the teacher. These videos introduce the grammar, vocabulary, pronunciation, and functional expressions that are essential for the upcoming speaking tasks. For instance, before a "job interview" project, the video may model appropriate question structures, polite expressions, and accurate pronunciation of job-related terminology. This asynchronous learning reduces cognitive load during class and allows learners to study at their own pace. Next, students complete voice/video tasks (submitted via Google Classroom), recording short responses to given prompts. This activity enables them to listen to their own voices, identify errors, and re-record as needed, encouraging self-monitoring and pronunciation awareness. Finally, students complete online quizzes to confirm their understanding of lesson content and maintain reflective journals to express what they learned and areas they still find challenging. These pre-class activities collectively build a foundation of input knowledge, promote self-directed learning, and develop learner autonomy prior to in-class interaction.

Stage 2: In-Class – Active Communication and Collaboration

The in-class stage centers on role plays and simulations, group projects, and peer feedback sessions to transform pre-learned knowledge into communicative competence. During role plays and simulations, students enact real-life scenarios such

as interviews, debates, or service encounters. The teacher's role is to facilitate accurate pronunciation, stress, and intonation while ensuring the communicative purpose is authentic. These activities provide a safe yet realistic environment where students can apply linguistic structures meaningfully. In group projects, students collaborate on creative speaking-based assignments, including podcast production, surveys, interviews, or multimedia presentations. Such projects require learners to plan, research, and present using English, promoting teamwork, problem-solving, and critical thinking. The integration of technology in these projects enhances creativity and digital literacy. To deepen learning, peer feedback sessions follow each speaking performance. Students evaluate one another using simplified rubrics focusing on fluency, vocabulary, and pronunciation. Through guided discussion, the teacher models effective feedback strategies, creating a supportive classroom climate that reduces speaking anxiety and strengthens reflective communication skills. These in-class tasks ensure that speaking practice is interactive, authentic, and learner-centered.

Stage 3: Post-Class – Reflection, Assessment, and Consolidation

The post-class stage incorporates blogging and e-portfolios alongside final presentations to promote self-assessment and long-term skill retention. Through blogging and e-portfolios, students compile evidence of their learning, including video recordings, written reflections, and peer comments. This digital record allows learners to monitor their progress over time, reflect on their strengths and weaknesses, and engage in peer interaction beyond the classroom. It also fosters a sense of ownership and accountability for their learning outcomes. The final presentations mark the culmination of each project cycle, where students showcase their improved fluency, pronunciation, and coherence through a formal presentation or final recorded video. Teachers evaluate performances using detailed rubrics measuring fluency, accuracy, pronunciation, and content organization. This assessment not only validates students' progress but also motivates them by providing visible evidence of their language growth. The post-class stage thus completes the PBFL learning cycle by reinforcing reflection, assessment, and sustained engagement with spoken English.

In summary, the detailed implementation of these three stages pre-class, in-class, and post-class as presented in Table 4.4, demonstrates how the PBFL model integrates technological tools, authentic communication, and reflective learning to

address the challenges of limited speaking opportunities, low learner confidence, and minimal use of digital resources in traditional classroom contexts.

Expert Validation of the PBFL Model

The PBFL model and its instructional components were evaluated by three experts in English language teaching using a five-point Likert scale. Experts assessed the relevance, clarity, comprehensiveness, and practical applicability of the model, including its pre-class, in-class, and post-class stages. The evaluation aimed to determine whether the model effectively supports the enhancement of Burmese students' English speaking abilities.

Table 4.7 Descriptive Statistics for Expert Evaluation of PBFL Model Stages

PBFL Stages	Expert A	Expert B	Expert C	Mean	SD
Pre-class activities	5	4	5	4.67	0.47
In-class projects	5	5	4	4.67	0.47
Post-class reflections	5	5	5	5.00	0.00
Technology integration	5	4	5	4.67	0.47
Total	-	-	-	4.75	0.14

The experts emphasized that the model effectively addresses long-standing issues in traditional language instruction. In particular, they highlighted its potential to promote student autonomy, increase classroom interaction, and provide meaningful speaking opportunities, as see the excerpt from Expert B.

"The PBFL model addresses core gaps in language pedagogy, especially the lack of interaction and autonomy." - Expert B

Descriptive Statistics for Expert Evaluation of Instructional Manual

The evaluation of the instructional manual was conducted by three experts using a five-point Likert scale. The experts assessed eight different aspects of the manual to determine its clarity, relevance, comprehensiveness, and practical applicability. Table 4.7 summarizes the average ratings and standard deviations for each evaluated item.

Table 4.8 Descriptive Statistics for Expert Evaluation of Instructional Manual

Evaluated Items	Expert 1	Expert 2	Expert 3	Mean	SD
1. Clarity and Coherence of the Manual	5	4	5	4.67	0.47
2. Alignment with Objectives	5	5	5	5.00	0.00
3.Comprehensiveness of Guidelines	4	5	5	4.67	0.47
4. Accessibility and Clarity of Language	5	4	5	4.67	0.47
5. Relevance to Burmese Context	5	5	5	5.00	0.00
6. Usefulness of Preparatory Steps	4	5	5	4.67	0.47
7. Integration of Feedback Mechanisms	4	4	4	4.00	0.00
8. Inclusion of Resources and References	5	5	5	5.00	0.00
Total	-	-	-	4.71	0.31

Findings and Interpretation for the Teacher's Manual

The results indicate that experts largely agreed on the critical elements of the teacher's manual. Alignment with objectives, relevance to the Burmese context, and

inclusion of resources and references received perfect mean ratings of 5.00, reflecting strong consensus on their effectiveness. Slightly lower, but still high, mean ratings of 4.67 were observed for clarity and coherence, comprehensiveness of guidelines, and accessibility and language clarity, suggesting that while the manual is generally clear and coherent, minor refinements could enhance usability.

The item integration of feedback mechanisms received a relatively lower mean score of 4.00, indicating that experts recognized the need for more explicit guidance on providing feedback. Notably, this item also had a standard deviation of 0.00, showing complete agreement among experts regarding its importance for improvement. Most other items had low standard deviations (0.00 or 0.47), reflecting a high level of consistency in expert evaluations.

Based on these results, the teacher's manual exhibits several key characteristics that contribute to its effectiveness in supporting the PBFL model. It demonstrates strong alignment with instructional objectives, ensuring that all activities and guidelines are directly linked to the intended learning outcomes. The manual is contextually relevant to the Burmese educational setting, with content and examples tailored to local classrooms, which enhances practical applicability and engagement.

Furthermore, the manual is generally clear, coherent, and comprehensive, providing structured guidance for implementing pre-class, in-class, and post-class activities. It is also resource-rich, offering lesson plans, activity examples, and references to support teachers effectively. For language use, it is mostly accessible, enabling teachers with varying experience levels to use the manual efficiently.

In addition, the manual includes feedback mechanisms, though experts suggested that providing more structured guidance on formative and summative feedback could further strengthen its usefulness. It also offers flexibility and adaptability, allowing teachers to adjust activities based on students' proficiency and available resources. The manual encourages student interaction through collaborative learning and peer feedback, and it supports reflective teaching practices by guiding teachers on monitoring student progress.

In summary, the teacher's manual is aligned, contextually relevant, resource-rich, coherent, accessible, and supportive of interaction and reflection, with minor improvements recommended for feedback integration. These characteristics, reflected

in the expert ratings, demonstrate the manual's practical effectiveness in enhancing English speaking development among Burmese learners.

PBFL Model Evaluation

This section presents the expert evaluation of the PBFL model, developed to enhance Burmese students' English speaking abilities.

Development Trail of the PBFL Model:

The PBFL model was developed through a systematic process. First, a needs analysis was conducted to identify gaps in English speaking skills among Burmese learners. Next, an initial draft of the model and lesson plans was created. This draft was then reviewed by experts, whose feedback guided revisions. Finally, the model was refined to produce the finalized PBFL framework. Table 4.9 summarizes key expert suggestions and the corresponding revisions made to the model and lesson plans.

Table 4.9 Key Expert Suggestions and Revisions

Expert Suggestion	**Revision Made**
Feedback guidance was unclear	Added structured guidance for formative and summative feedback
Certain lesson objectives needed alignment	Adjusted objectives to better match PBFL outcomes
Examples not contextually relevant	Updated examples to suit Burmese classrooms
Instructional strategies needed clarification	Included step-by-step instructions for in-class activities

The evaluation examined the model's appropriateness, clarity, comprehensiveness, and practical applicability, focusing on both the lesson plans and overall implementation framework. Experts feedback was analyzed to assess the feasibility, effectiveness, and potential areas for refinement of the PBFL model within the Burmese EFL context.

Descriptive Statistics for Expert Evaluation of PBFL Lesson Plans

As described in Chapter 3, the PBFL lesson plans designed to enhance Burmese university students' English speaking abilities were evaluated by three experts using a five-point Likert scale. Experts assessed appropriateness, clarity, comprehensiveness,

and practicality. Table 4.10 summarizes the mean scores and standard deviations for each evaluation item, showing generally high agreement on the lesson plans' effectiveness.

Findings and Interpretation of the PBFL Model

The expert evaluations indicate that the PBFL model is highly feasible and effective for developing Burmese students' English speaking abilities. The lesson plans, which are core components of the model, provide structured guidance for pre-class, in-class, and post-class activities, integrating technology, collaborative projects, and authentic tasks. Experts emphasized that the model fosters the 3Cs such as communication, collaboration, and critical thinking by engaging students in meaningful, real-world tasks conducted in English. The high ratings for objectives, content, and course structure suggest that the model is well-aligned with intended learning outcomes and contextually appropriate for the Burmese EFL setting. Items related to peer evaluation, instructional strategies, and materials, although slightly lower, indicate opportunities for minor adjustments to enhance clarity and practical implementation. Experts noted that the PBFL model promotes active learner engagement and aligns with Vygotsky's Sociocultural Theory by encouraging scaffolding, guided interaction, and collaborative problem-solving. Project-based and flipped learning elements allow students to prepare before class and focus on applying knowledge in collaborative, interactive settings, which supports fluency, confidence, and meaningful communication. In summary, the PBFL model, as reflected in the expert ratings, demonstrates strong potential to improve English speaking performance, foster active learning, and develop essential 21st-century skills among Burmese learners. The lesson plans provide a practical, adaptable framework that ensures effective implementation of the model while allowing minor refinements to optimize clarity and usability.

Table 4.10 Descriptive Statistics for Evaluation of Lesson Plans

Evaluated Items	Expert 1	Expert 2	Expert 3	Mean	SD
1. Topic	5	5	4	4.67	0.47
2. Objectives	5	5	5	5.00	0.00
3. Duration	5	4	5	4.67	0.47
4. Materials	5	4	5	4.67	0.47
5. Contents	5	5	5	5.00	0.00
6. Course Structure	5	5	5	5.00	0.00
7. Instructional Strategies	4	5	5	4.67	0.47
8. Peer Evaluation and Feedback	5	4	5	4.67	0.47
9. Reflection and Self-Assessment	5	5	5	5.00	0.00
10. Use of Language	5	5	5	5.00	0.00
Total	-	-	-	4.84	0.17

Most items received high mean scores, suggesting that the lesson plans were generally perceived as effective and well-structured. Items such as objectives, content, course structure, reflection and self-assessment, and use of language received perfect mean scores of 5.00, indicating full agreement among the experts regarding their effectiveness. Slightly lower mean scores of 4.67 were observed for topics, duration, materials, instructional strategies, and peer evaluation and feedback, suggesting minor refinements could enhance clarity and usability. Low standard deviations (0.00 or 0.47) reflect a high level of consistency among the expert evaluations.

Findings and Interpretation

The results in Table 4.10 indicate that the experts mostly agreed on the key elements of the lesson plans. Items such as objectives, contents, course structure, reflection and self-assessment, and use of language received perfect mean ratings of 5.00, reflecting strong consensus on their effectiveness. Slightly lower mean ratings of

4.67 were observed for Topic, Duration, Materials, Instructional Strategies, and Peer Evaluation and Feedback, suggesting that while the lesson plans are highly effective, minor refinements could improve clarity or guidance in these areas. Low standard deviations (0.00 or 0.47) indicate a high level of agreement among the experts.

These results indicate a very strong overall consensus on the effectiveness of the lesson plans. The "very high" ratings (5.00) demonstrate full agreement on alignment with objectives, content, course structure, reflection, and language use, while slightly lower ratings (4.67) highlight minor areas for improvement, such as clarifying topics, adjusting durations, providing additional materials, and strengthening guidance on peer evaluation and feedback.

Based on these evaluations, the lesson plans demonstrate a high level of appropriateness for implementing the PBFL model. They are strongly aligned with the intended learning objectives, ensuring that all activities effectively support the model's outcomes. The plans are also contextually relevant, incorporating activities and examples suited to university students' cultural and educational backgrounds, which enhances both engagement and practical applicability.

In terms of clarity, the lesson plans are well-structured and coherent, with logically organized instructions and sequences that allow teachers to implement them smoothly. They are comprehensive, covering all stages of the PBFL model, including pre-class, in-class, and post-class activities. The plans incorporate a variety of speaking tasks, group projects, role plays, and reflection exercises to support the development of English speaking abilities effectively.

The practicality of the lesson plans is reflected in their integration of technology, flexibility, and resource support. Technology is effectively used to enhance both independent and collaborative learning experiences. The plans are adaptable, allowing teachers to modify activities according to students' proficiency levels and available resources, ensuring feasibility in different classroom contexts. Adequate guidance and support for each activity help teachers implement the plans efficiently.

Assessment and feedback mechanisms are also embedded within the lesson plans. Both formative and summative assessment strategies are included, and although experts suggested that more structured guidance could further strengthen feedback

practices, the plans already provide opportunities for monitoring students' progress and supporting improvement in English speaking skills.

Additionally, the plans emphasize interaction, collaboration, and reflective learning. Activities are designed to promote peer learning, constructive feedback, and self-assessment, encouraging students to monitor and reflect on their own progress. This focus on collaborative and reflective practices supports the development of critical thinking, problem-solving, and autonomous learning skills in English speaking.

Pre- and post-speaking evidence further illustrates the impact of the PBFL model. Brief excerpts from student speaking performances demonstrate noticeable improvements in fluency, vocabulary, pronunciation, and interaction. For example, in Part 1 (Interview), a student's initial response, "I… uh… like study… English," developed into "I enjoy learning English because it helps me communicate with people worldwide." In Part 2 (Long Turn), the response improved from "My school… have many students… classroom…" to "In my school, students actively participate in English-speaking activities, which enhances our communication skills." Similarly, in Part 3 (Discussion), the statement "I think… English… good" progressed to "I believe learning English is essential because it opens opportunities for higher education and international communication." These examples indicate clear development in fluency, lexical range, sentence structure, and overall confidence.

In summary, the PBFL lesson plans are well-aligned, clear, comprehensive, practical, technology-integrated, interactive, and reflective. Minor improvements in feedback guidance could further enhance their effectiveness. Overall, the expert evaluations and student speaking examples confirm that the lesson plans are suitable for enhancing English speaking proficiency among university students.

Conclusion

The comprehensive evaluation indicates that the lesson plans are highly appropriate and comprehensive for the goals of the PBFL model. Experts showed strong consensus on the effectiveness of the lesson structure, objectives, and content, with minor variations in the evaluation of instructional strategies and peer feedback components. The lesson plans are well-designed to enhance students' English speaking abilities through project-based and flipped learning activities, providing a balanced combination of independent preparation, interactive practice, and reflective assessment.

Taken together, the PBFL model, instructional manual, and lesson plans function as an interconnected system, aligned with the conceptual framework of this study. The instructional manual serves as a practical guide for teachers, offering structured guidance, resources, and contextually relevant examples to implement the model effectively. The lesson plans operationalize the PBFL principles, translating the manual's guidance into concrete pre-class, in-class, and post-class activities that facilitate authentic speaking practice, collaborative learning, and reflective assessment.

This alignment ensures that the model's three stages of preparation (input building), interaction (application), and consolidation (reflection) are consistently supported. Pre-class activities develop foundational knowledge and controlled practice, in-class activities provide opportunities for meaningful communication and collaborative projects, and post-class activities consolidate learning through reflection, self-assessment, and performance demonstrations. Collectively, the instructional manual and lesson plans provide a coherent and practical framework for enhancing English speaking proficiency among Burmese university students, demonstrating the effectiveness and feasibility of the PBFL model as envisioned in the conceptual framework.

4.3 Finding Three: Effectiveness of the PBFL Model in Improving Speaking

This section evaluates the effectiveness of the Project-Based Flipped Learning (PBFL) model in enhancing students' English speaking skills. A mixed-methods approach was used, combining quantitative and qualitative data to offer a robust evaluation of speaking performance improvements based on the data collected in this study.

Quantitative Results of Pre-test and Post-test

To assess the impact of the PBFL model on students' English speaking proficiency, pre- and post-tests were administered to all 40 students using rubric-based speaking tasks. The rubric was adapted from IELTS speaking assessment criteria, covering five components: fluency, accuracy, pronunciation, vocabulary, and

interaction. Each component was scored on a 4-point scale (1 = Poor, 4 = Excellent). Mean scores and standard deviations were calculated for each component before and after the implementation of the PBFL model to measure students' progress.

A paired-samples t-test was conducted using IBM SPSS Statistics to compare pre- and post-test scores for each component. The results demonstrated statistically significant improvements across all components, with mean differences ranging from 1.12 to 1.15. Specifically, $p < .001$ indicates that the probability of obtaining these results by chance is less than 0.1%, confirming that the improvements are highly reliable and not due to random variation. The standard deviation values (≈ 0.54–0.66) suggest moderate variability in student performance, indicating consistent progress across the group.

To further assess the magnitude of the improvements, Cohen's d was calculated for each component. All components showed large effect sizes ($d > 0.8$), which means that the PBFL model not only led to statistically significant gains but also produced substantively meaningful improvements in students' English speaking proficiency. In other words, the observed changes are educationally significant and indicate that the model effectively enhanced students' fluency, accuracy, pronunciation, vocabulary use, and interaction skills.

Overall, these results provide strong evidence that the PBFL model is effective in improving English speaking abilities among Burmese students, demonstrating both measurable statistical gains and practical educational impact.

Table 4.11 Comparison of Pre-Test and Post-Test Speaking Scores

Rubric	Pre-test		Post-test		Cohen's d
	Mean	SD	Mean	SD	
Fluency	2.83	0.64	3.97	0.58	1.87
Accuracy	2.70	0.59	3.85	0.54	2.03
Pronunciation	2.77	0.63	3.90	0.57	1.88
Vocabulary	2.80	0.61	3.92	0.56	1.91
Interaction	2.75	0.66	3.88	0.59	1.81
Total	13.85	0.63	19.52	0.57	9.44

Table 4.11 shows that all five rubrics of English speaking, including fluency, accuracy, pronunciation, vocabulary, and interaction, improved significantly from pre-test to post-test. Pre-test scores ranged from 2.70 to 2.83, while post-test scores increased to between 3.85 and 3.97. Paired-sample t-tests indicated that these gains were statistically significant ($p < 0.001$), and Cohen's d values ranged from 1.81 to 2.03, demonstrating very large effect sizes. On average, students' total speaking scores increased from 13.85 (SD = 0.63) to 19.52 (SD = 0.57), reflecting both substantial and consistent improvement across the group. When mapped to the four main speaking criteria of pronunciation, vocabulary usage, grammatical accuracy, and coherence and fluency (fluency + interaction), students progressed from "fair" to "good to excellent" levels. These results indicate that the PBFL model had a strong positive impact on students' English speaking abilities, with the largest improvements observed in accuracy and fluency.

Interpretation

The results of this study indicate that the PBFL intervention had a substantial and meaningful impact on students' English speaking proficiency. The greatest improvements were observed in fluency and coherence and pronunciation, suggesting that project-based activities combined with pre-class practice effectively promoted real-time communication, reduced hesitation, and encouraged accurate pronunciation. Improvements in lexical resource and grammatical accuracy, although more modest, demonstrate that vocabulary and grammar skills still benefit significantly from contextualized, project-based tasks, even if they require ongoing reinforcement. Quantitative data from performance assessments and surveys showed that students demonstrated increased confidence, a greater willingness to take risks in speaking, and more frequent use of target vocabulary. Overall, these findings suggest that the PBFL model enhances both measurable speaking performance and practical communication skills, confirming its effectiveness in improving English speaking abilities in the context of Burmese EFL learners.

Conclusion

In summary, the quantitative results from pre- and post-tests show significant improvements in both overall and sub-skill scores, indicating that the PBFL model had a substantial and meaningful impact on students' English speaking proficiency. The

scores demonstrate that integrating project-based and flipped learning approaches effectively enhanced learners' fluency, pronunciation, vocabulary, and grammatical accuracy. These quantitative gains are further supported by qualitative observations from classroom interactions, peer feedback, and reflective journals, which revealed increased student engagement, confidence, and motivation. Together, these findings indicate that the PBFL model not only improves measurable performance but also fosters a supportive and motivating learning environment conducive to real-world communicative competence.

4.4 Finding Four: Student Perceptions of the PBFL Model

This section explores students' perceptions of the PBFL model, providing insight into motivation, engagement, self-efficacy, and the perceived usefulness of digital tools. A survey of 40 students was complemented by open-ended qualitative reflections.

Questionnaire Data

The survey, completed by 40 students, assessed perceptions of the PBFL model across five domains: learning motivation, classroom engagement, technology acceptance, self-efficacy, and perceived learning outcomes. Students responded using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Table 4.12 summarizes the mean scores, standard deviations, the percentage of students selecting each response, and the corresponding interpretation. The total/overall row reflects the last domain (Perceived Learning Outcomes) to clearly indicate overall perception.

Table 4.12 Students' Perception of the PBFL Model

Domains	**Mean (M)**	**SD**	**Percentage of Student Agreement**	**Meaning**
Learning Motivation	4.6	0.58	93%	Strongly Agree
Classroom Engagement	4.5	0.62	90%	Strongly Agree
Technology Acceptance	4.1	0.75	80%	Agree
Self-Efficacy	4.3	0.70	85%	Agree

Table 4.12 (continued)

Domains	**Mean (M)**	**SD**	**Percentage of Student Agreement**	**Meaning**
Self-Efficacy	4.3	0.70	85%	Agree
Perceived Learning Outcomes	4.6	0.60	92%	Strongly Agree
Total / Overall	4.6	0.62	92%	Strongly Agree

Students reported positive perceptions of the PBFL model, with high mean scores across all domains. The highest ratings were for learning motivation (M = 4.6; 93%) and perceived learning outcomes (M = 4.6; 92%), indicating that students found the approach effective for fostering meaningful learning and practical use of English. Classroom engagement was rated second highest (M = 4.5; 90%), reflecting active participation during lessons. Self-efficacy ranked third (M = 4.3; 85%), showing students' growing confidence in using English. Technology acceptance received a slightly lower mean (M = 4.1; 80%) but still reflected positive perceptions. The overall score (M = 4.6; 92%) confirms that students strongly accepted and valued the PBFL model across multiple dimensions of learning.

Qualitative Data

Qualitative responses from the open-ended questions reinforced the quantitative findings. Students emphasized the practical application of English in real-world tasks, the supportive and collaborative learning environment, and the opportunity to receive constructive feedback. A few students mentioned initial challenges with technology, but these were eventually overcome, enhancing their overall learning experience. These qualitative insights complement the questionnaire results, confirming that the PBFL intervention effectively improved English speaking skills while fostering engagement, confidence, and meaningful application of language.

The quantitative survey results were further enriched by students' qualitative reflections, which provided deeper insights into how the PBFL model influenced their confidence, engagement, and use of English in real-world contexts.

Student's Reflections from Post-Intervention Questionnaire

In addition to the survey results, students provided qualitative feedback highlighting the practical benefits of the PBFL model. One student noted, "The projects helped me speak more confidently because I had to use English in real situations," illustrating how the project-based activities offered authentic opportunities to practice English in meaningful contexts. Some students reported initial difficulties with digital tools, particularly online quizzes; however, most adapted quickly and found these tools supportive of their learning process. Students described these resources as valuable for enhancing communication, engagement, and overall learning experiences. These reflections provide qualitative evidence that the PBFL model positively influenced their English speaking skills and engagement.

4.5 Instructor's Perception from Implementation Observations

Instructors generally reported positive perceptions of the PBFL model, recognizing its potential to enhance student engagement and English speaking skills. They observed noticeable increases in student participation and motivation compared to traditional teaching methods.

Nevertheless, instructors highlighted several challenges associated with implementation. The preparation and coordination of project-based activities required a substantial time investment, averaging 8.2 hours per week approximately 35% more than conventional instructional approaches. Additionally, instructor noted initial resistance from some students who were unaccustomed to active learning and self-directed pre-class tasks. As instructor explained, "Some students were hesitant at first because they preferred listening to lectures rather than preparing on their own."

Balancing feedback to simultaneously improve students' fluency and grammatical accuracy was also identified as a challenge. Despite these obstacles, instructors agreed that the authentic, project-based context fostered more meaningful speaking practice and contributed to a reduction in student anxiety over time.

Overall, the instructor feedback supports the feasibility and effectiveness of the PBFL model while highlighting areas requiring careful planning and support to optimize implementation.

In summary, students' perceptions and reflections indicate that the PBFL model was highly effective in enhancing their engagement, confidence, and overall experience in learning English. Qualitative feedback highlighted the practical application of English in meaningful contexts, the supportive and collaborative learning environment, and the usefulness of digital tools such as online quizzes. The findings suggest that students perceived the PBFL model as a valuable and motivating approach, fostering positive attitudes toward English speaking and active participation in classroom activities.

4.6 Summary of Findings

The study's findings demonstrate that the PBFL model effectively enhanced Burmese students' English speaking abilities while fostering positive perceptions and engagement. For RQ 1, quantitative data showed significant improvements in fluency, pronunciation, and interaction skills, indicating measurable gains in speaking performance. For RQ 2, classroom activities and projects provided authentic contexts that increased students' confidence and willingness to communicate. For RQ 3, the integration of technology, including online quizzes, was generally well-received, supporting independent practice and self-directed learning. Finally, for RQ 4, students' reflections highlighted the practical benefits of the PBFL approach, its motivational impact, and the supportive, collaborative learning environment it created. As a result, the findings confirm that the PBFL model is both effective and adaptable, offering a comprehensive approach to enhancing English speaking skills in similar educational contexts.

CHAPTER 5

CONCLUSION AND DISCUSSION

5.1 Introduction

The chapter concludes with a synthesis of findings, theoretical contributions, pedagogical implications, and recommendations for further research. This chapter provides an in-depth discussion of the findings presented in Chapter 4, linking them to the existing literature and theoretical framework. The objective is to interpret the results in light of the study's aims and to evaluate the significance of the PBFL model in enhancing Burmese students' English speaking abilities. The discussion is structured around the four research objectives: identifying current challenges in English speaking instruction, developing and validating the PBFL model, evaluating its effectiveness, and analyzing student perceptions.

5.2 Conclusions

This study focused on the development and implementation of a Project-Based Flipped Learning (PBFL) model aimed at enhancing Burmese students' English speaking abilities. The research objectives systematically guided the study: RO1 addressed the design of the PBFL model, RO2 examined its classroom implementation, RO3 explored its potential effectiveness in improving speaking performance, and RO4 investigated students' perceptions of the learning experience.

The PBFL model was implemented as a one-group intervention, incorporating pre-class video lessons, in-class project-based speaking activities, and post-class reflection tasks. Pre-class lessons provided foundational knowledge, while in-class activities offered opportunities for authentic communication and collaboration. Post-class reflection tasks, including blogging and e-portfolios, supported self-assessment, peer interaction, and demonstration of learning progress. Quantitative data collected

through CEFR-aligned speaking assessments measured performance across pronunciation, fluency, vocabulary, grammar, and interactive communication. Qualitative data from students' open-ended responses captured their perceptions of the PBFL model and its learning processes.

The findings suggest that the PBFL model may have contributed to improvements in students' English speaking abilities. Quantitative results indicate gains across all assessed sub-skills, while qualitative feedback highlights increased engagement, motivation, and collaborative participation. Instructors reported that students demonstrated greater communicative willingness and active participation. Overall, these findings may suggest that the PBFL approach provides a practical framework for supporting English speaking skills in the Myanmar EFL context.

Current Challenges in Burmese Students' English Speaking Abilities

Before the intervention, Myanmar students faced challenges in English speaking largely due to teacher-centered instruction, which followed the Initiation-Response-Feedback (IRF) pattern and emphasized linguistic accuracy over communication. Classroom observations indicated that approximately 85% of instructional time was teacher-led, limiting opportunities for student-centered interaction (Walsh, 2002).

Psychological factors also constrained speaking development. Many students reported anxiety about mispronunciation, fear of grammatical errors, and low self-confidence, reflecting aspects of communication apprehension (Horwitz et al., 1986). Furthermore, limited authentic communicative contexts restricted students' opportunities to use English in real-world situations (Ellis, 2003). Although digital devices were available, technology was underutilized, with 93% of teachers rarely incorporating digital tools due to limited training and institutional support.

Development of the PBFL Model to Address Identified Challenges

The PBFL model was developed to address these challenges by integrating Flipped Learning, Project-Based Learning (PBL), and Sociocultural Theory into a cohesive, learner-centered framework. Pre-class video lessons aimed to reduce teacher dominance and allowed students to engage with content at their own pace, which may have mitigated performance anxiety. In-class project-based activities, such as role-plays, peer interviews, and podcasts, provided opportunities for authentic

communicative practice, supporting both linguistic competence and motivation. Post-class reflection tasks reinforced learning and promoted metacognitive awareness.

The theoretical foundation supported both pedagogical and affective needs. Flipped Learning offered flexible content access and cognitive preparation, PBL encouraged sustained engagement, and Sociocultural Theory emphasized collaboration and scaffolding within the Zone of Proximal Development, potentially helping learners gradually build confidence. Expert validation indicated the model's feasibility, with all components achieving Index of Item-Objective Congruence (IOC) scores above 0.80.

Effectiveness of the PBFL Model on Speaking Skills

Implementation of the PBFL model was associated with improvements in English speaking performance. Quantitative analysis demonstrated gains across pronunciation, fluency, grammar, vocabulary, and interactive communication, with effect sizes suggesting meaningful educational impact. Qualitative feedback indicated that students experienced increased motivation, confidence, and active participation. Teachers observed higher engagement and willingness to communicate, which may be explained by the combination of pre-class preparation, structured in-class collaboration, and opportunities for low-stakes practice.

Students' Perceptions of the PBFL Model

Students' perceptions were generally positive. Questionnaire results indicated strong agreement that the model supported learning (mean scores 4.67–5.00). Participants valued interactive, collaborative, and technology-integrated aspects of the model, including structured opportunities for authentic communication. These findings suggest that the PBFL model may support both linguistic competence and learner motivation, providing a supportive, low-anxiety environment conducive to practicing English speaking skills.

5.3 Discussion of the Findings

The findings of this study suggest that the implementation of the Project-Based Flipped Learning (PBFL) model contributed to notable improvements in Burmese students' English speaking abilities. By integrating both quantitative and qualitative

data, the study provides a comprehensive understanding of how this instructional approach influenced students' linguistic, affective, and behavioral outcomes. Within the context of Myanmar's EFL classrooms, these findings may reflect the benefits of combining learner-centered, project-based, and digitally supported pedagogies.

Before the intervention, students faced considerable challenges in developing speaking skills, particularly in pronunciation, fluency, and interactive communication. Classrooms were predominantly teacher-centered, following the IRF pattern, which emphasized linguistic accuracy over communicative practice. Observations indicated that approximately 85% of instructional time was teacher-led, which likely limited students' opportunities for dialogue and peer collaboration, consistent with previous research on teacher-dominated discourse (Walsh, 2002).

The PBFL model sought to address these challenges by providing pre-class video lessons, in-class project-based activities, and post-class reflection tasks. The quantitative results showed significant gains across all speaking sub-skills, with effect sizes indicating educationally meaningful improvements. These findings may suggest that integrating flipped and project-based learning approaches can enhance learner autonomy and engagement, aligning with prior studies in similar EFL contexts (Hung, 2020; Basal & Cakir, 2021; Lee et al., 2023).

Qualitative evidence further supports the quantitative findings, as students reported increased confidence, motivation, and willingness to participate in speaking activities. This may be explained by the reduced performance pressure afforded by pre-class videos, which allowed learners to process content at their own pace and prepare for interactive tasks without the immediate presence of teacher evaluation.

Some sub-skills, such as pronunciation accuracy and sustained autonomous practice, showed slower progress compared to findings in technologically advanced settings. For example, studies in South Korea and Singapore indicate faster gains with AI-supported learning (Kim et al., 2022; Chen & Hsu, 2024). These differences may be attributed to contextual factors in Myanmar, including limited digital infrastructure, uneven access to reliable internet, and variable teacher facilitation.

Despite these constraints, the PBFL model provided structured scaffolding that supported gradual improvements. Guided peer interaction, feedback, and collaborative tasks likely mitigated some of the challenges associated with low-resource contexts.

This outcome aligns with Vygotsky's Sociocultural Theory, which emphasizes the importance of scaffolding and learning within the Zone of Proximal Development (ZPD).

The use of digital tools created additional opportunities for low-stakes speaking practice outside the classroom. Even without advanced AI support, asynchronous video and online practice may have contributed to learners' enhanced fluency, vocabulary use, and communicative confidence, suggesting that technology can be leveraged effectively even in resource-limited settings (Qassrawi et al., 2024; Han & Lee, 2024).

Affective and behavioral changes were also observed. Survey data indicated strong agreement that students experienced increased motivation, confidence, and willingness to take communicative risks, with mean scores ranging from 4.67 to 5.00. These changes may reflect the combined effect of self-paced pre-class preparation and collaborative in-class activities that foster supportive peer networks and reduce language anxiety.

Observations further revealed that students were more proactive, interactive, and engaged in communicative tasks. This may be explained by the task-based and project-oriented nature of the PBFL model, which provided authentic contexts for language use and encouraged sustained participation, even when face-to-face interaction outside class was limited.

Students' perceptions of the PBFL model were consistently positive. Many valued the clarity and brevity of pre-class videos, the authenticity of project-based tasks, and the opportunity to collaborate in class. This suggests that learner perceptions of autonomy, relevance, and structured support are critical factors in promoting engagement and effective language acquisition (Alharbi, 2021; Nguyen & Ho, 2022).

The integration of digital tools was also highlighted as enhancing the learning experience. Students appreciated opportunities for asynchronous practice and timely feedback from both peers and instructors, supporting evidence that technology-mediated instruction can benefit both cognitive and affective dimensions of language learning (Zhang & Li, 2023).

Comparison with global PBFL frameworks indicates both similarities and distinctions. Like international models, this study's PBFL approach combined pre-class input, interactive in-class tasks, and post-class projects, which appear to enhance learner

autonomy and motivation. However, the model was adapted for Myanmar's context by incorporating low-bandwidth digital resources and additional teacher scaffolding to compensate for limited student familiarity with self-directed learning.

These contextual adaptations may explain differences in learning outcomes compared to studies conducted in high-resource environments. Students in Myanmar required more guided support, particularly for pronunciation practice and pre-class preparation, suggesting that effective PBFL implementation must consider local infrastructure, learner habits, and access to authentic English exposure.

Overall, the PBFL model appears theoretically consistent with global evidence while practically tailored to local conditions. This alignment may explain why students experienced both skill improvements and affective gains, demonstrating that pedagogical frameworks can be effective when contextualized to learners' needs.

The study's findings also suggest that even without advanced AI tools, structured digital support can promote self-regulated learning and communicative confidence. This provides empirical support for the use of cost-effective, scalable, and learner-centered approaches in low-resource EFL contexts.

In summary, the PBFL model contributed to enhanced speaking performance, increased motivation, and positive student perceptions of collaborative and technology-enhanced learning. These outcomes, while consistent with previous research on flipped and project-based instruction, also highlight the importance of contextualized pedagogical design for Myanmar's EFL learners.

5.4 Implications

The results of this study contribute to both theoretical understanding and practical pedagogical design in EFL education, particularly in contexts with limited resources like Myanmar. Implications are discussed in three sub-sections:

Implications for Theory

The study supports and extends theoretical claims about learner-centered, socially mediated language learning within Sociocultural Theory (Vygotsky, 1978). The shift from teacher-centered instruction to a model in which learners engage autonomously and collaboratively suggests that sociocultural-informed pedagogies can

operate effectively even under resource constraints. Furthermore, affective variables such as anxiety, motivation, and learner confidence appear to be influential in second language acquisition and may be positively affected by structured, communicative, and task-based approaches (Horwitz et al., 1986). These findings provide empirical evidence for the role of learner autonomy and peer-supported scaffolding in language learning.

Implications for Practice

Pedagogically, the PBFL model offers a flexible and scalable framework for EFL instruction without reliance on extensive infrastructure. Pre-class video lessons enable self-paced content engagement, in-class project-based speaking tasks prioritize interaction and collaboration, and post-class reflection encourages metacognitive awareness and consolidation. Educators may consider adopting such structured approaches to maximize speaking opportunities, foster autonomy, and encourage sustained engagement.

The findings also indicate that low-bandwidth digital tools can scaffold learning effectively, particularly in contexts with limited teacher availability or authentic language exposure. Pre-class preparation, peer interaction, and reflection tasks may help students engage consistently with English speaking practice.

Implications for Future Research and Technology Integration

While this study did not measure the impact of AI-assisted tools, future research could explore their potential in enhancing individualized instruction, adaptive feedback, and speaking practice. AI-driven systems may help reduce performance pressure, provide immediate corrective feedback, and support continued engagement, particularly in resource-limited settings. Researchers should also investigate longitudinal effects to determine the sustainability of gains in speaking skills and the transferability of learned competencies to other contexts.

5.5 Limitations of the Study

While this study makes valuable contributions, several limitations must be acknowledged. First, the research was conducted in a limited number of school sites,

which may constrain the generalizability of the findings. Although the sample size was sufficient for the research design, it may not fully represent the diversity of learners across Myanmar, particularly in terms of regional, socioeconomic, and linguistic backgrounds. This limitation suggests that variations in student engagement, technological access, and teacher facilitation could influence the effectiveness of the PBFL model in different contexts.

Second, the study primarily focused on the short-term effects of PBFL on students' English speaking skills. While quantitative results demonstrated significant gains in fluency, pronunciation, vocabulary, grammar, and interactive communication, long-term retention and the continued application of these skills were not investigated. Without longitudinal follow-up, it remains unclear whether learners maintain their improvements over time or generalize them to other English language contexts.

Third, the successful implementation of the PBFL model relied heavily on teacher cooperation and technological infrastructure. Schools with limited digital resources or teachers with insufficient digital literacy may encounter challenges in adopting the model, potentially reducing its effectiveness. Variability in teacher motivation, familiarity with flipped or project-based pedagogies, and capacity to provide timely feedback may also affect student outcomes.

Fourth, while qualitative data provided insights into student perceptions and classroom interactions, the study did not extensively examine deeper aspects of learner identity transformation, classroom culture shifts, or the influence of collaborative learning dynamics over an extended period. More comprehensive ethnographic or longitudinal approaches would better capture these complex sociocultural processes.

Finally, although the study integrated digital tools to scaffold learning, the role of AI-assisted platforms in enhancing individualized instruction, adaptive feedback, and speaking practice was not fully explored. Limited access to such tools may have constrained the potential impact of technology on learner autonomy and engagement.

5.6 Recommendations for Future Research

Building on the identified limitations, several recommendations are proposed for future research. First, future studies should implement the PBFL model across a broader and more diverse range of educational contexts, including rural, under-resourced, and multilingual schools, to assess its scalability, adaptability, and contextual relevance. Longitudinal research is also recommended to evaluate the sustained effects of the model on speaking proficiency, learner autonomy, and transferability of skills to other language domains.

Second, teacher professional development programs are essential to support effective PBFL implementation. Future research should investigate structured training programs that develop teachers' flipped learning and project-based instructional skills, digital literacy, and classroom facilitation capabilities. This would address the identified cause of uneven teacher preparedness and enhance the consistency and quality of model implementation across diverse classrooms.

Third, integrating AI-driven and digital tools into PBFL warrants further exploration. Future studies could examine the use of AI-assisted pronunciation feedback, adaptive speaking exercises, and intelligent scaffolding platforms to support personalized learning, especially in contexts with limited face-to-face teacher interaction. Research in this area could identify how such technologies mitigate constraints caused by insufficient teacher availability or limited classroom exposure to authentic language.

Fourth, while the current study focused on English speaking, future research could explore the PBFL model's impact on integrated language skills, including listening, reading, and writing. Investigating the model in multi-skill or content-based contexts would provide a more comprehensive understanding of its pedagogical effectiveness.

Finally, additional qualitative research should examine the affective and sociocultural dimensions of PBFL, such as learner motivation, confidence, identity, and mindset. Studies could explore how collaboration, peer scaffolding, and digital-mediated learning environments influence students' agency, engagement, and long-

term learning behaviors. These insights would help address the underlying causes of speaking difficulties, such as anxiety and low self-confidence, and inform practical strategies to further optimize PBFL interventions.

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APPENDIX A

LIST OF EXPERTS VALIDATING RESEARCH INSTRUMENTS

1. **Semi-structured interview**
   1.1 Specialist in Curriculum and Instruction, Mae Fah Luang University
   1.2 Specialist in Curriculum and Instruction, Mae Fah Luang University
   1.3 Specialist in Educational Research, Yangon University

2. **PBFL Model**
   2.1 Specialist in Curriculum and Instruction, Mae Fah Luang University
   2.2 Specialist in Curriculum and Instruction, Mae Fah Luang University
   2.3 Specialist in Educational Research, Yangon University

3. **Lesson Plans and Instructional Manual**
   3.1 Specialist in Curriculum and Instruction, Mae Fah Luang University
   3.2 Specialist in Curriculum and Instruction, Mae Fah Luang University
   3.3 Specialist in Educational Research, Yangon University

4. **Pre and Post-tests**
   4.1 Specialist in Curriculum and Instruction, Mae Fah Luang University
   4.2 Specialist in Curriculum and Instruction, Mae Fah Luang University
   4.3 Specialist in Educational Research, Yangon University

5. **Questionnaire**
   5.1 Specialist in Curriculum and Instruction, Mae Fah Luang University
   5.2 Specialist in Curriculum and Instruction, Mae Fah Luang University
   5.3 Specialist in Educational Research, Yangon University

APPENDIX B

A PBFL MODEL

Research Topic

The Development of Project-Based Flipped Learning Model to Enhance Burmese Students' English Speaking Abilities

Background of the Instructional Model

English has become the predominant language for global communication, trade, and education, emphasizing the necessity for individuals to attain proficiency in English language skills (Crystal, 2003; Graddol, 2006). In an increasingly interconnected world, proficiency in English is essential for individuals to thrive in diverse international contexts (Jenkins, 2009).

In Myanmar, English language education faces unique challenges due to cultural, linguistic, and pedagogical factors (Canagarajah, 2006). While efforts have been made to incorporate English into the national education system, existing instructional models often prioritize grammar and vocabulary over communication skills, leading to deficiencies in speaking and listening proficiency among students (Kyaw, 2019).

Technology has emerged as a transformative force in education, offering opportunities to enhance language acquisition and provide access to authentic language resources (Bates, 2015). Despite advancements, the current instructional model in Myanmar struggles to fully leverage technology's potential in English language education (Dudeney & Hockly, 2012).

To address these challenges, integrating innovative and student-centred approaches into language education is vital. Project-Based Learning (PBL) and Flipped Learning (FL) have gained recognition as effective instructional methodologies in various educational contexts (Thomas, 2000; Bergmann & Sams, 2012). PBL engages students in real-world projects, fostering critical thinking and collaboration, while FL

facilitates personalized learning and increased student engagement (Bishop & Verleger, 2013).

The integration of PBL and FL, termed Project-Based Flipped Learning (PBFL), offers a comprehensive approach to language education. PBFL empowers students to take ownership of their learning journey, develop essential skills, and navigate linguistic challenges effectively (Martínez et al., 2017).

Previous research has highlighted the benefits of PBL and FL in enhancing language learning outcomes, particularly in speaking skills (Helle et al., 2006; Strayer, 2012). The integration of these methodologies in language education provides a robust framework for improving student proficiency and preparing them for success in a globalized world (Gorman, 2018).

While similarities exist with other EFL contexts, Myanmar's rich cultural heritage and unique sociopolitical factors necessitate tailored approaches to language education (Aye & Win, 2020). Understanding these contextual nuances is crucial in evaluating the adaptability and effectiveness of the proposed PBFL model in Myanmar. Addressing research gaps and assessing the effectiveness of the PBFL model in enhancing Burmese students' speaking abilities is pivotal. By providing evidence-based insights and empowering students for future success in English language proficiency, this research aims to contribute to the advancement of language education in Myanmar.

Theoretical Approach for the Development of the Instructional Model

The development of a Project-Based Flipped Learning (PBFL) model to enhance Burmese students' English speaking abilities draws upon several key theoretical frameworks and principles in education, language acquisition, and instructional design. These theoretical foundations inform the design, implementation, and evaluation of the proposed instructional model, ensuring its effectiveness in fostering English speaking proficiency among Burmese students.

Flipped Learning:

Flipped learning serves as the cornerstone of the instructional model, blending traditional face-to-face instruction with online learning experiences. As articulated by Bergmann and Sams (2012), in a flipped classroom, students engage with instructional content outside of class, such as lectures or multimedia resources, while in-class time is dedicated to interactive activities, discussions, and hands-on learning. By flipping the

traditional classroom model, the PBFL model prioritizes active student engagement, personalized learning experiences, and meaningful interaction with course content, thereby promoting deeper understanding and retention of English speaking skills.

Project-Based Learning (PBL):

The PBFL model incorporates principles of project-based learning, where students undertake real-world projects that demand effective verbal expression and collaboration. Rooted in constructivist learning theory, PBL emphasizes student-driven inquiry, problem-solving, and application of knowledge in authentic contexts (Thomas, 2000). Through project-based activities, students in the PBFL model have opportunities to develop critical thinking skills, explore diverse perspectives, and apply English speaking skills to practical, real-life situations, thereby enhancing their overall language proficiency.

Constructivism Learning Theory:

The PBFL model aligns with constructivist learning theory, which posits that knowledge is actively constructed by learners through meaningful interactions with their environment and peers. As emphasized by Sridevi (2008) and Ozer (2004), learners are viewed as active participants in the learning process, where they construct meaning and knowledge based on their experiences, background knowledge, and social interactions. In the PBFL model, students take ownership of their learning journey, collaborate with peers, and engage in reflective practices, thereby deepening their understanding of English language concepts and refining their speaking abilities.

ESL/EFL Speaking Instruction:

The PBFL model integrates principles of ESL/EFL speaking instruction, focusing on both the process and product of language acquisition. Drawing from experts such as Wallace (1992), Alderson and Urguhart (1984), and Gibbons (2002), the model emphasizes the dynamic and interactive nature of speaking skills development, wherein students actively engage with linguistic input, cultural nuances, and real-world contexts to construct meaning and communicate effectively. By scaffolding instruction before, during, and after speaking activities, the PBFL model equips students with the necessary strategies and tools to enhance their English speaking proficiency.

English Language Learning and Important Skills 3Cs (Communication, Collaboration, and Critical Thinking):

The significance of English language learning in Myanmar's 21st-century classrooms is paramount as the country seeks to integrate into the global community and capitalize on the opportunities presented by an interconnected world. English has become the dominant international language for communication, trade, and diplomacy (Crystal, 2003), making it a vital skill for Myanmar's citizens to participate in the global economy (Graddol, 2006). Emphasizing English language learning in classrooms equips students with the language proficiency necessary to access a vast array of educational resources and engage in cross-cultural interactions (Warschauer, 2004). Moreover, English language proficiency fosters critical thinking, creativity, and adaptability, empowering students to thrive in a rapidly changing global landscape (Cummins, 2009). The literature review emphasizes the need for effective language teaching methodologies, the integration of technology, and language policy reforms to elevate the role of English language learning and the 3Cs in Myanmar's education system and ensure that students are well-prepared for success in the 21st century."

By synthesizing these theoretical frameworks and principles, the PBFL model offers a comprehensive and student-centered approach to English speaking instruction, preparing Burmese students to thrive in a globalized world. Through project-based activities, flipped learning experiences, constructivist pedagogy, ESL/EFL speaking strategies, and 21st century learning skills, the model aims to empower students to become confident and proficient English speakers, capable of engaging meaningfully in cross-cultural communication and collaboration.

Components of the Instructional Model

The instructional model for developing Burmese students' English speaking abilities through Project-Based Flipped Learning (PBFL) encompasses several key components designed to facilitate effective learning experiences and promote language proficiency. These components include:

1. **Goals for English Speaking Proficiency:**

Within the PBFL model, students are provided with clearly defined terminal objectives to guide their development in English speaking. These objectives encompass achieving fluency, refining pronunciation and intonation, enriching vocabulary across diverse topics, enhancing conversational abilities, and adeptly articulating ideas and opinions in English-speaking environments. These objectives serve as definitive end points,

marking the culmination of students' language learning journey within the PBFL framework.

2. Creating Supportive Learning Spaces:

Creating supportive learning spaces within the PBFL model involves integrating physical and digital environments that facilitate collaborative and engaging learning experiences. In addition to traditional classroom settings, digital platforms play a crucial role in enhancing accessibility to learning materials and fostering student engagement. While digital platforms offer flexibility and convenience, the physical environment also plays a pivotal role in supporting students' learning. The classroom should be designed to encourage interaction and collaboration, with furniture arranged to facilitate group discussions and activities. Adequate learning resources should be readily available, and the atmosphere should be conducive to learning, promoting a sense of comfort and belonging. Utilizing online platforms, multimedia resources, and interactive tools, students can explore diverse content, participate in real-time discussions, and collaborate with peers beyond the confines of the physical classroom. The flexibility of digital environments enables students to access resources at their convenience, promoting independent exploration and self-directed learning. Moreover, personalized learning experiences tailored to individual needs and preferences empower students to take ownership of their learning journey. With built-in feedback and assessment mechanisms, instructors can monitor student progress, provide timely feedback, and support continuous improvement. Collaborative opportunities further enhance communication skills, critical thinking, and teamwork abilities essential for success in the PBFL model. By leveraging digital technologies effectively, teachers create inclusive and dynamic learning environments that foster student engagement, collaboration, and growth.

3. Active Participation in Language Development (Students' Role):

Active participation in language development within the PBFL model is not merely a passive endeavor; rather, it is a dynamic process that empowers students to become active agents in their language learning journey. By engaging in project-based tasks that necessitate verbal expression, collaborative problem-solving, and peer interaction, students actively apply language skills in authentic contexts. Through such engagement, students not only deepen their understanding of English language concepts but also

cultivate essential communication skills essential for effective speaking. Moreover, active participation fosters a sense of ownership and responsibility for one's learning, instilling a growth mindset and a willingness to take risks in using English for communication. As students actively participate in PBFL activities, they develop the confidence to express themselves fluently and coherently, thus enhancing their overall speaking abilities and proficiency in the English language.

4. Guiding Language Learning Experiences (Teacher's Role):

In the PBFL model aimed at enhancing students' speaking abilities, the teacher's role transcends traditional instruction to become that of a facilitator and mentor. Beyond delivering content, teachers guide language learning experiences by creating a supportive and inclusive classroom environment where students feel empowered to take risks and engage actively in speaking tasks. Through structured guidance and facilitation, teachers encourage meaningful interactions among students, promoting collaborative learning and the exchange of ideas. By modeling effective communication skills, teachers set examples for students to emulate, demonstrating proper pronunciation, intonation, and language use in various contexts. Additionally, teachers offer timely and constructive feedback to students, highlighting strengths and areas for improvement, and providing targeted support to address individual learning needs. Through scaffolded instruction, teachers break down complex language concepts into manageable tasks, supporting students as they navigate challenges and develop their speaking proficiency. Furthermore, teachers play a pivotal role in assessing student progress, using formative assessments and performance tasks to monitor language development and adjust instruction accordingly. Ultimately, by assuming a multifaceted role as guides, facilitators, and assessors, teachers empower students to become confident and effective speakers of the English language within the PBFL framework.

5. Essential Language Components:

Designing Speaking Content:

Identify Key Speaking Components:

Identify the essential elements necessary for effective speaking, including pronunciation, fluency, intonation, and discourse strategies.

Segmentation of Content:

Segment speaking content into stages suitable for both in-classroom and online instruction, encompassing pre-speaking, speaking practice, and post-speaking reflection stages.

Adaptation to PBFL Model:

Ensure that speaking activities are aligned with the PBFL model's emphasis on active learning, collaboration, and student engagement.

Designing Content Presentation:

Blended Learning Format:

Utilize a blended learning approach by offering a mix of online and offline tools to support speaking skill development. Digital platforms can facilitate online practice sessions, discussions, and feedback, while offline resources provide additional opportunities for practice and reflection.

Student-Centered Approach:

Prioritize student interaction and participation in content presentations by incorporating interactive elements such as speaking prompts, role-plays, and collaborative projects. This approach encourages active engagement and enhances learning outcomes.

Alignment with Student Interests:

Select speaking topics and activities that resonate with students' interests, experiences, and cultural backgrounds. By aligning content with student preferences, motivation and relevance are enhanced, leading to deeper engagement and language acquisition.

Assessment and Feedback:

Integrate opportunities for formative assessment and feedback into content presentations. Provide structured feedback on speaking performance, focusing on improvement areas and language development strategies.

By adhering to these design principles, speaking content can be effectively tailored to meet the needs of students within the PBFL model, promoting meaningful language acquisition and communication skills development.

6. Engaging Learning Approaches:

Incorporating diverse and interactive teaching methods within the PBFL model enriches the language learning experience for students. Active learning strategies encourage hands-on participation and foster deeper understanding of linguistic concepts. Cooperative learning activities promote collaboration among students, enabling them to share ideas and learn from each other's perspectives. Experiential learning opportunities provide real-world context for language use, enhancing the practical relevance of language skills.

Multimedia presentations offer dynamic visual and auditory stimuli, catering to various learning preferences and enhancing comprehension. Role-plays and simulations immerse students in simulated language scenarios, allowing them to practice language skills in authentic contexts. Debates encourage critical thinking and argumentation skills while providing opportunities for language practice and expression.

Moreover, real-world projects engage students in meaningful, project-based learning experiences where they can apply language skills to solve authentic problems and explore topics of interest. By embracing a variety of instructional techniques, educators can create dynamic and stimulating learning environments that motivate students to actively engage with language content and foster their speaking abilities within the PBFL framework.

7. Enriching Learning Resources:

In addition to curating enriching learning resources, educators play a pivotal role in designing and selecting content that aligns with the objectives of the PBFL model. This involves carefully selecting authentic texts, digital tools, multimedia materials, and language learning apps that cater to students' linguistic proficiency levels and communicative needs.

Program selecting and instructional documents also contribute significantly to the richness of learning resources within the PBFL model. Educators must choose appropriate programs and platforms that facilitate online learning, collaboration, and interaction. The selection of instructional documents, including worksheets, lesson

plans, and project guidelines, provides structured guidance for students and supports the implementation of PBFL activities.

Moreover, instructional documents should be designed to be accessible and user-friendly, allowing students to navigate learning materials independently and engage in self-directed learning experiences. By integrating diverse and accessible resources into the PBFL model, educators empower students to explore language content, expand their vocabulary, and enhance their speaking proficiency both in and out of the classroom environment.

8. Structured Learning Sequences:

Structured learning sequences are fundamental to the success of language learning within the PBFL model as they provide a framework for students to navigate through different stages of the learning process effectively.

During the pre-learning preparation phase, students engage in activities that help them familiarize themselves with the upcoming materials and set clear learning objectives. This phase encourages students to activate prior knowledge, preview content, and establish goals for their learning journey. By setting clear objectives, students can focus their efforts and approach the learning materials with purpose and intentionality.

In-class participation forms the core of structured learning sequences within the PBFL model. Students collaborate with their peers, engage in hands-on activities, and apply language skills in authentic contexts. These collaborative projects and activities encourage active participation, critical thinking, and the application of language concepts in real-world scenarios. Teachers facilitate these activities, provide guidance, and create opportunities for meaningful interaction and dialogue among students.

Following in-class participation, the post-learning reflection phase allows students to consolidate their learning outcomes and reflect on their language acquisition experiences. Through reflection, students assess their progress, identify areas of strength and weakness, and set goals for future learning. This metacognitive process promotes self-awareness, self-regulation, and continuous improvement in language proficiency.

Structured learning sequences ensure that students' progress through the language learning journey in a systematic and scaffolded manner. By providing clear

guidelines and opportunities for active engagement at each stage, structured sequences support students' language development and contribute to meaningful learning experiences within the PBFL model.

9. Assessing Language Proficiency:

Systematic assessment strategies are crucial for evaluating language proficiency and monitoring progress within the PBFL model. The assessment framework includes pre-tests, post-tests, and in-class group presentations, resembling the format of IELTS speaking tests and collaborative activities.

Pre-tests serve as diagnostic tools, establishing baseline proficiency levels and identifying students' strengths and weaknesses in speaking skills. Post-tests, similar to IELTS speaking tests, assess students' speaking proficiency after completing the speaking activities and projects within the PBFL model. These tests measure fluency, pronunciation, vocabulary usage, and coherence in spoken language.

In-class group presentations provide opportunities for students to demonstrate their speaking abilities in a collaborative setting. Through group presentations, students engage in interactive speaking tasks, such as discussions, debates, and role-plays, showcasing their language skills in real-world contexts. Teachers assess students' speaking proficiency during these presentations, providing feedback on language accuracy, communication strategies, and presentation delivery.

By incorporating pre-tests, post-tests, and in-class group presentations into the assessment framework, teachers gain insights into students' language development and tailor instruction to meet individual learning needs effectively. This comprehensive approach to assessment fosters the development of English speaking abilities within the PBFL model and prepares students for real-world communication tasks, including standardized language proficiency tests like IELTS.

10. Supporting Language Growth:

To assess students' and teachers' perceptions of the PBFL model, a questionnaire can be administered to gather feedback on the effectiveness of PBFL in enhancing language growth, identifying areas for improvement, and exploring the overall learning experience. By soliciting input from both students and teachers, educators can gain valuable insights into the strengths and challenges of the PBFL approach and make informed decisions to optimize language learning outcomes within the classroom.

By focusing on these components, the PBFL model offers a holistic approach to enhancing Burmese students' English speaking abilities, fostering meaningful language acquisition experiences, and preparing students for effective communication in diverse contexts.

Each component of the instructional model is interconnected and contributes to the overall effectiveness of PBFL in enhancing Burmese students' English speaking abilities. By integrating these components cohesively, the instructional model aims to create a dynamic and student-centered learning environment that cultivates language proficiency, fosters critical thinking skills, and promotes effective communication in English.

Table B.1 : Implementation the PBFL model

Before and after Teaching PBFL model		
Pre-classroom ***Teacher Role:*** • Prepare pre-lesson materials, including lesson plans, handouts, and multimedia resources. • Design and deliver video lectures, audio recordings, and project lessons to introduce key concepts and topics. ***Student Role:*** • Engage with pre-lesson materials and resources provided by the teacher. Review assigned readings, watch video lectures, and	**In-classroom** ***Teacher Role:*** • Facilitate group presentations and discussions to encourage active participation and collaboration among students. • Conduct micro-teaching sessions where students have the opportunity to practice and refine their speaking skills in a controlled environment. • Implement a student-centered learning approach by providing	**Post-classroom** ***Teacher Role:*** • Facilitate follow-up discussions to recap key concepts, address any lingering questions or concerns, and reinforce learning objectives. • Administer post-class assessments to evaluate student understanding and mastery of the lesson content. ***Student Role:*** • Participate in follow-up discussions, reflecting on their

familiarize themselves with the upcoming lesson content.	opportunities for students to take ownership of their learning and explore topics of interest. ***Student Role:*** • Participate in group presentations and discussions, contributing ideas, asking questions, and sharing insights with peers. • Engage in micro-teaching activities, both as presenters and observers, to gain practical experience and receive constructive feedback. Take an active role in their learning process, asking questions, seeking clarification, and exploring topics independently or in groups.	learning experiences, and seeking clarification on any remaining doubts or questions. Complete post-class assessments to demonstrate their comprehension and application of the lesson material.

APPENDIX C

INSTRUCTIONAL MANUAL

Rationale:

The instructional manual proposed herein serves as a foundational guide for teachers seeking to implement a novel project-based flipped learning model aimed at enhancing Burmese students' English speaking abilities. Specifically crafted for teachers interested in adopting this innovative instructional approach, the manual offers a comprehensive roadmap beyond the conventional scope of the model itself.

By delineating meticulous step-by-step guidelines, the manual aims to address critical preparatory aspects integral to the successful implementation of the instructional model. It seeks to provide clarity and structure, equipping educators with the necessary tools to navigate and effectively execute the model in their English speaking classes.

It's essential to underscore that the instructional model delineated in the manual is custom-tailored for Burmese students' English speaking development, reflecting a project-based flipped learning approach. This contextual clarification is instrumental in streamlining comprehension and enhancing accessibility for educators engaged in English language instruction within the Burmese academic context.

Before implementing the instructional model aimed at enhancing Burmese students' English speaking abilities, it is imperative to adhere to the following guidelines:

Study of the Instructional Model:

- Familiarize yourself with the background and theoretical underpinnings of the instructional model.
- Understand the components of the model and the interrelationship between each component.
- Gain insight into the rationale behind the chosen pedagogical approach and its potential impact on students' speaking abilities.

Review of the Instructional Manual:

- Engage comprehensively with the instructional manual provided.

- Explore the overarching purpose and objectives of the manual in facilitating English speaking development among Burmese students.
- Grasp the significance of the project-based flipped learning model as a means to enhance students' speaking skills within the Burmese academic context.

Examination of Lesson Plans:

- Review the collection of detailed lesson plans designed to address various speaking topics or tasks.
- Pay close attention to the specified objectives, materials, procedures, and assessments outlined for each lesson.
- Ensure alignment between the lesson plans and the specific needs and abilities of Burmese students in developing their speaking abilities.

Understanding Flipped Learning Resources:

- Gain insight into the concept of flipped learning and its relevance to fostering speaking skills.
- Explore recommended pre-class resources such as online videos, audio recordings, and interactive exercises aimed at supporting students' independent learning and preparation for speaking tasks.

Guidelines for Project-Based Learning:

- Familiarize yourself with the guidelines and strategies for implementing project-based learning activities tailored to enhance speaking abilities.
- Explore examples of projects and collaborative tasks designed to promote active engagement and authentic language use among students.

Assessment and Feedback Procedures:

- Understand the various assessment methods and tools utilized to evaluate students' speaking abilities.
- Review guidelines for providing constructive feedback to students, including self-assessment and peer evaluation mechanisms.

Additional Resources and References:

- Access supplementary resources, references, and recommended readings pertinent to the development of speaking abilities among Burmese students.

- Explore a variety of sources including websites, books, articles, and scholarly materials to enrich understanding and inform instructional practices.

By adhering to these preparatory steps, teachers can effectively implement the project-based flipped learning model to enhance the speaking abilities of Burmese students, fostering a supportive and dynamic learning environment conducive to language acquisition and proficiency development.

APPENDIX D

SAMPLE OF LESSON PLANS

Subject: English Speaking

Topic: Improving English Speaking Skill

Duration: 10 Weeks (2 days per week, 45 minutes per day)

Objectives:

- By the end of the lesson, students will be able to demonstrate improved speaking abilities through effective communication, clarity, and fluency.

Materials:

- Tailored textbooks integrating speaking activities and project-based learning components.
- Customized handouts featuring speaking prompts, project guidelines, and reflective questions.
- Multimedia resources like recorded dialogues, podcasts, and instructional videos focusing on speaking skills and project themes.
- Essential classroom supplies such as whiteboards, markers, and flipchart paper for collaborative brainstorming and planning.
- Interactive learning platforms or apps supporting virtual collaboration, peer feedback, and project management.
- Classroom props enhancing role-play scenarios and adding authenticity to speaking tasks.
- Recording devices for students to record and review their speaking practice sessions and presentations.
- Reliable internet access enabling online research, resource access, and digital collaboration.
- Rubrics and assessment tools for evaluating speaking proficiency and project contributions.
- Relevant supplementary reading materials supporting project themes and language development.

Contents:

- Introduction to Effective Speaking:
    - Importance of clear communication.
    - Key elements of effective speaking: pronunciation, vocabulary, grammar, and non-verbal communication.
- Structured Speaking Activities:
    - Role-plays and dialogues.
    - Debates and discussions on various topics such as current events, societal issues, and academic themes.
    - Group presentations and speeches.
- Vocabulary Expansion and Language Structures:
    - Introduction to new vocabulary relevant to everyday conversations.
    - Practice with common language structures and expressions used in spoken English.
- Peer Evaluation and Feedback:
    - Establishing criteria for evaluating speaking performances.
    - Providing constructive feedback to peers to promote growth and improvement.
- Reflection and Self-Assessment:
    - Opportunities for students to reflect on their speaking performances.
    - Setting personal goals for ongoing skill development.

Course Structure:

Week 6: Pre-Test

- Conduct pre-test to assess students' baseline English speaking skills.

Week 7: Introduction to Effective Speaking

- **Warm-up Activities:** Engage in discussions on the importance of communication skills.
- **Pre-Class Activity:** Introduce key elements of effective speaking through pre-class materials and resources.
- **In-Class Activity:** Participate in group speaking tasks, including self-introductions and discussions on familiar topics.

- **Peer Evaluation and Feedback:** Provide constructive feedback to peers on speaking tasks.
- **Reflection and Self-Assessment:** Reflect on personal speaking skills and set goals for improvement.

Week 8: Structured Speaking Activities

- **Structured Speaking Activities:** Discuss familiar topics and express opinions in structured formats.
- **Vocabulary Expansion:** Introduce new vocabulary relevant to everyday conversations through pre-class materials.
- **In-Class Activity:** Participate in role-plays and dialogues to practice language use in realistic scenarios.
- **Peer Evaluation and Feedback:** Offer feedback to peers on language use and communication strategies.
- **Reflection and Self-Assessment:** Reflect on language proficiency and identify areas for further development.

Week 9: Debates and Discussions

- **Debates and Discussions:** Participate in structured debates or discussions on current events or controversial topics.
- **Language Structures:** Practice common language structures and expressions in the context of debates and discussions.
- **In-Class Activity:** Engage in group debates to explore differing viewpoints and develop persuasive speaking skills.
- **Peer Evaluation and Feedback:** Provide feedback to peers on argumentation and presentation skills.
- **Reflection and Self-Assessment:** Reflect on debating and discussion skills, identifying strengths and areas for growth.

Week 10: Group Presentations

- **Group Presentations:** Collaborate on assigned group presentations on researched topics.
- **Language Fluency and Clarity:** Emphasize organization and clarity in presentations through pre-class materials.

- **In-Class Activity:** Deliver group presentations, focusing on language fluency, clarity, and content delivery.
- **Peer Evaluation and Feedback:** Offer feedback to peers on presentation skills and content.
- **Reflection and Self-Assessment:** Reflect on presentation experiences and set goals for future speaking tasks.

Week 11: Culminating Speaking Event and Reflection

- **Speaking Competition or Showcase:** Students showcase their enhanced speaking abilities through a competition or presentation event.
- **Celebration and Reflection:** Reflect on improvement in speaking skills and celebrate individual and group accomplishments.
- **Encouraging Continued Practice:** Emphasize ongoing practice and application of speaking skills beyond the classroom. Provide resources for continued development.

Weeks 12–15: Advanced Speaking Practice

- Extend and reinforce skills from Weeks 7–11.
- Engage in additional structured discussions, debates, role-plays, and peer-reviewed presentations.
- Emphasize fluency, vocabulary usage, pronunciation, and interaction in increasingly complex scenarios.
- Provide continued peer feedback, self-assessment, and goal setting.

Week 16: Post-Test

- Conduct post-test to measure improvements in English speaking skills.
- Compare pre- and post-test results to evaluate the effectiveness of the PBFL intervention.

Course Structure Summary:

- Weeks 6–16 provide a progressive framework to enhance students' speaking skills.
- Initial weeks focus on traditional methods to build foundational knowledge.
- Later weeks emphasize interactive, project-based, and peer-reviewed activities to reinforce and extend speaking proficiency.

APPENDIX E

A SEMI-STRUCTURED INTERVIEW FOR STUDENTS

Research Background:

The development of English speaking abilities among Burmese students presents a significant educational challenge, influenced by factors such as language barriers, cultural differences, and instructional methodologies. In response to these challenges, this research aims to explore the states and problems faced by Burmese students in developing their English speaking abilities. Through a semi-structured interview approach, the study seeks to uncover key insights that will inform the design of a project-based flipped learning (PBFL) model tailored to the specific needs of Burmese learners.

Research Objectives:

1. To identify the state and problems of Burmese students in developing their English speaking abilities.
2. To develop a project-based flipped learning model tailored to the Burmese students' English speaking abilities.
3. To examine the effectiveness of the developed project-based flipped learning model in improving the English speaking abilities of Burmese students.
4. To determine student's perception towards the project-based flipped learning model in enhancing their English speaking abilities.

Participant Selection:

From a pool of potential participants, a subset of fifteen Burmese students will be selected for the semi-structured interviews. The selection process will ensure representation from Burmese students of the same level and age, aiming to gather insights into the issues surrounding English speaking proficiency within this specific demographic.

Instructions

This semi-structured interview consists of interview topics examining the states and problems in English speaking. This information is used for designing the project-based flipped learning (PBFL) model to enhance English speaking abilities in Burmese students.

Please be certain to answer the questions with facts.

Speaking English proficiently is a vital skill for students, enabling effective communication and interaction in various contexts. As language learners, students recognize the importance of developing their speaking abilities to navigate academic settings and real-world situations. However, despite its significance, many students encounter difficulties in speaking English. These challenges arise from diverse factors such as language barriers, cultural differences, confidence levels, instructional approaches, and more.

Acknowledging the complexities surrounding English speaking proficiency, this semi-structured interview aims to delve into the problems students face in speaking English. By exploring these issues, we can gain valuable insights into the barriers that hinder language acquisition and identify strategies to support students in enhancing their speaking skills effectively.

Semi-Structured Interview Examining the States and Problems in English Speaking: 10 Questions Included

What is/are your opinions about these questions?

1. How do you feel when you speak English?
2. To what extent can you speak English?
3. What are your English speaking problems?
4. How do you overcome your problems in speaking skills?
5. How do you typically practise and engage in your speaking skills?
6. What are speaking tasks/ activities that you do in English class?
7. How much more time would you like to spend practising speaking in class? Please give an estimate in minutes (e.g., 15 minutes, 30 minutes).
8. What kinds of resources, materials, or support would be helpful for you to improve your speaking skills?

9. What learning strategies have you found most effective in helping you improve your speaking skills?
10. If you benefit from the learning strategies, explain how each of them helps you improve your speaking skills?
11. What do you expect the teacher to do to help you to speak English better?
12. What do you expect the university to do to help you speak English better?
13. What are your suggestions for the teacher and university?

    More comments:

_____

_____

Thank you.

APPENDIX F

A SEMI-STRUCTURED INTERVIEW FOR TEACHER

Research Background:

The development of English speaking abilities among Burmese students presents a significant educational challenge, influenced by factors such as language barriers, cultural differences, and instructional methodologies. In response to these challenges, this research aims to explore the states and problems faced by Burmese students in developing their English speaking abilities. Through a semi-structured interview approach, the study seeks to uncover key insights that will inform the design of a project-based flipped learning (PBFL) model tailored to the specific needs of Burmese learners.

Research Objectives:

1. To identify the state and problems of Burmese students in developing their English speaking abilities.
2. To develop a project-based flipped learning model tailored to the Burmese students' English speaking abilities.
3. To examine the effectiveness of the developed project-based flipped learning model in improving the English speaking abilities of Burmese students.
4. To determine student's perception with the project-based flipped learning model in enhancing their English speaking abilities.

Instructions

This semi-structured interview consists of interview topics examining the state and problems of teaching and learning in English speaking. This information is used for designing the project-based flipped learning (PBFL) model to enhance English speaking abilities in Burmese students.

Please be certain to answer the questions with facts.

In the realm of language education, teaching and learning in a speaking classroom are pivotal for fostering effective oral communication skills among students. As educators endeavor to enhance student achievement and support them in reaching their learning objectives, it becomes essential to address the state and challenges inherent in the teaching and learning process. Various instructional models have been developed by experts and researchers to cater to the diverse needs and goals of language learners, providing valuable frameworks for designing effective speaking classrooms. However, the effectiveness of these models is contingent upon their alignment with the objectives, appropriateness to the learning environment, and the identification of key challenges and needs.

Through this semi-structured interview, we aim to explore the experiences and perspectives of teachers regarding the state and problems of teaching and learning in a speaking classroom. By delving into these insights, we seek to gain a deeper understanding of the dynamics at play and identify strategies to address challenges effectively. Ultimately, our goal is to inform instructional practices and create an inclusive and supportive learning environment where students can develop their speaking skills with confidence.

Semi-Structured Interview Examining the States and Problems in English Speaking: Aimed at uncovering insights into the challenge's teachers encounter in facilitating English speaking proficiency. 11 Questions Included

What is/are your opinions about these questions?

1. In your opinion, what is the current level of English speaking skills among students, and how does this affect your teaching?
2. What specific challenges do you face when facilitating speaking activities in your English classes?
3. What are speaking tasks/ activities you generally use in English class?
4. How do you address the linguistic, cultural and learning diversity of different students in teaching English?
5. Based on your teaching experiences, how do you engage students to do speaking activities in the classroom?

6. What barriers or difficulties do students encounter during the speaking tasks?
7. What resources, materials, or technological tools are available to support the development of speaking skills among Burmese students?
8. How do you and your students access these resources?
9. Are there any challenges in accessing them?
10. Do students utilise them effectively?
11. Based on your teaching experiences, do you think students can check their learning speaking progress?
12. How do you support and contribute to your students' improvement in speaking skills?
13. What are recommendations or strategies you would suggest?

More comments:

_____

_____

Thank you

APPENDIX G

PRE-TEST AND POST-TEST CRITERIA

English Speaking Test (Pre-test)

The topics align with the format of the IELTS examination. The speaking test encompasses three topics, adhering to the structure and requirements of the IELTS examination. They are consisted of three topics as follows:

1. Introduction and Interview: The examiner asks the candidate general questions about themselves, their background, interests, and everyday life.
2. Long Turn: The candidate is given a topic card with a specific subject, and they have one to two minutes to speak about the topic. They may also be asked follow-up questions related to the topic.
3. Discussion: The examiner and candidate engage in a discussion related to the topic from the second section. This part allows for a more extended conversation and provides the candidate with an opportunity to express opinions and ideas in more detail.

Speaking Test Part 1: Introduction and Interview

Topic	**Questions**
Self-Introduction	What is your name?
	Can you tell me where you live?
	Do you work or study?
	What do you like about your school/job?
Exploring free time activities	Do you have a lot of free time? If yes, what do you do in your free time?
	Do you spend your free time outside?
	What sort of things do you like doing outside?
	Is there a free time activity you would like to try in the future?

Speaking Test Part 2: Candidate task card

Describe a special event or festival that you liked. You should say:

- what the event was
- where it was
- what happened
- And why you liked it

Students will have to talk about the topic for 1 to 2 minutes. They have one minute to think about what they're going to say. They can make some notes if they wish.

Rounding off questions

Tell me

- Did the other people also enjoy this event?
- How do you know?

Speaking Test Part 3: Discussion

Topic	**Questions**
A special event or festival that you liked	Why do you think celebrations are important in society?
	Do you think celebrations are experienced differently by the different generations?
International events	Do you agree with this statement "Celebrations are experienced differently by different generations"?

CRITERIA

Criteria: Pronunciation

- 4: Excellent pronunciation with clear articulation, accurate intonation, and appropriate stress
- 3: Good pronunciation with mostly clear articulation, minor errors in intonation and stress
- 2: Fair pronunciation with noticeable errors in articulation, intonation, and stress
- 1: Poor pronunciation with significant difficulties in articulation, intonation, and stress

Criteria: Vocabulary Usage

- 4: Wide range of vocabulary used accurately and appropriately, including specialized terms
- 3: Adequate vocabulary used with occasional errors or limited range
- 2: Basic vocabulary used with frequent errors and limited range
- 1: Limited vocabulary with significant errors and repetition

Criteria: Grammatical Accuracy

- 4: Consistently correct grammatical structures and usage
- 3: Mostly correct grammatical structures with occasional errors
- 2: Frequent errors in grammatical structures and usage
- 1: Persistent and significant errors in grammatical structures and usage

Criteria: Coherence and Fluency

- 4: Smooth and natural flow of speech with excellent coherence, clarity, and fluency
- 3: Adequate coherence and fluency with occasional hesitations or minor disruptions
- 2: Limited coherence and fluency with noticeable hesitations and disruptions
- 1: Poor coherence and fluency with frequent hesitations and disruptions

POST-TEST AND CRITERIA

English Speaking Test (Post-test)

The topics align with the format of the IELTS examination. The speaking test encompasses three topics, adhering to the structure and requirements of the IELTS examination. They are consisted of three topics as follows:

1. Introduction and Interview: The examiner asks the candidate general questions about themselves, their background, interests, and everyday life.
2. Long Turn: The candidate is given a topic card with a specific subject, and they have one to two minutes to speak about the topic. They may also be asked follow-up questions related to the topic.
3. Discussion: The examiner and candidate engage in a discussion related to the topic from the second section. This part allows for a more extended conversation and provides the candidate with an opportunity to express opinions and ideas in more detail.

Speaking Test Part 1: Introduction and Interview

Topic	**Questions**
Self-Introduction	Can you tell us about something you've done recently that made you happy?
	How does where you live affect what you do every day?
	What job do you dream of having one day, and how will you get there?
	What makes a job or school enjoyable for you?
Exploring Free Time Activities	How do you decide what to do when you have free time?
	Why do you think it's important to have hobbies or activities you enjoy?
	Can you tell us about a fun time you spent outside recently?
	Is there something new you want to try in your free time?

Speaking Test Part 2: Candidate task card

Describe a memorable trip or journey you have taken. You should say:

- Where you went
- Who you went with
- What you did
- Why it was memorable

Students will have to talk about the topic for 1 to 2 minutes. They have one minute to think about what they're going to say. They can make some notes if they wish.

Rounding off questions

Tell me

- Do you think others would enjoy a similar trip?
- Why or why not?

Speaking Test Part 3: Discussion

Topic	**Questions**
A Special Event or Festival You Liked	Why do people like parties and festivals?
	Do older and younger people celebrate differently?
International Events	How do big events influence collaboration between countries?

CRITERIA

Criteria: Pronunciation

- 4: Excellent pronunciation with clear articulation, accurate intonation, and appropriate stress
- 3: Good pronunciation with mostly clear articulation, minor errors in intonation and stress
- 2: Fair pronunciation with noticeable errors in articulation, intonation, and stress
- 1: Poor pronunciation with significant difficulties in articulation, intonation, and stress

Criteria: Vocabulary Usage

- 4: Wide range of vocabulary used accurately and appropriately, including specialized terms
- 3: Adequate vocabulary used with occasional errors or limited range
- 2: Basic vocabulary used with frequent errors and limited range
- 1: Limited vocabulary with significant errors and repetition

Criteria: Grammatical Accuracy

- 4: Consistently correct grammatical structures and usage
- 3: Mostly correct grammatical structures with occasional errors
- 2: Frequent errors in grammatical structures and usage
- 1: Persistent and significant errors in grammatical structures and usage

Criteria: Coherence and Fluency

- 4: Smooth and natural flow of speech with excellent coherence, clarity, and fluency
- 3: Adequate coherence and fluency with occasional hesitations or minor disruptions
- 2: Limited coherence and fluency with noticeable hesitations and disruptions
- 1: Poor coherence and fluency with frequent hesitations and disruptions

APPENDIX H

QUESTIONNAIRE

Questionnaire for the Students' Perception and Attitudes towards the Project-Based Flipped Learning (PBFL) Model in Enhancing their English Speaking Abilities

Purpose:

The purpose of this questionnaire is to evaluate students' perception of the Project-Based Flipped Learning (PBFL) model in enhancing their English speaking abilities. The questionnaire aims to assess students' attitudes and perceptions towards teaching and learning using the PBFL model.

Source of Adaptation:

The questionnaire structure for this study draws inspiration from Bhandari, P. (2021). The adaptation process involves modifications tailored to the specific context of assessing students' perceptions with the Project-Based Flipped Learning (PBFL) model in enhancing their English speaking abilities. The adaptation sources include materials from various scholarly works and empirical studies related to language learning methodologies and educational interventions.

Questionnaire Structure:

Demographic Information: Gather basic details about the respondents, such as age, gender, academic level, and English proficiency level.

Perceptions towards PBFL Model: Assess students' attitudes and perceptions regarding various aspects of the PBFL model, including its effectiveness, relevance, engagement, and satisfaction.

Open-Ended Questions: Provide students with an opportunity to offer suggestions, feedback, and additional comments regarding their experiences with the PBFL model.

Instructions for Respondents:

Thank you for participating in this questionnaire. Your feedback is valuable in understanding the effectiveness of the Project-Based Flipped Learning (PBFL) model in enhancing your English speaking abilities. Please follow the instructions below:

Demographic Information: Please provide accurate details about yourself in the demographic section.

Perceptions towards PBFL Model: Please indicate your level of agreement with each statement regarding teaching and learning using the PBFL model by using the following criteria:

- 5 = Strongly Agree
- 4 = Agree
- 3 = Neutral
- 2 = Disagree
- 1 = Strongly Disagree

Open-Ended Questions: Feel free to express any additional thoughts, suggestions, or comments related to your experiences with the PBFL model.

Demographic Information

1. Gender:

- ☐ Male
- ☐ Female

2. Age: _____ years old

3. Academic Level:

- ☐ Year 1
- ☐ Year 2

- ☐

Year 3

- ☐

Year 4

- ☐

Year 5

4. Major:

- ☐

Bachelor of Business Administration

- ☐

Bachelor of Hospitality and Tourism Management

- ☐

Bachelor of Information Technology

5. English Proficiency Level:

- ☐

Beginner

- ☐

Elementary

- ☐

Pre-intermediate

- ☐

Intermediate

- ☐

Upper-intermediate

- ☐

Advanced

6. Number of Years Studying English:

- ☐ 1-3 years
- ☐ 4-6 years
- ☐ 7-9 years
- ☐ 10 years or more

Perception toward PBFL model

No	Evaluated Items	Degree of Agreement					Remarks
		5	4	3	2	1	
1	The resources provided in the PBFL model are helpful for learning English speaking.						
2	PBFL allows for personalized learning based on individual needs and pace.						
3	PBFL encourages active participation and involvement in English speaking learning.						
4	PBFL helps in applying theoretical knowledge to real-world situations.						
5	PBFL fosters critical thinking and problem-solving skills in English speaking learning.						

6	The assessment methods used in PBFL accurately reflect English speaking abilities.						
7	PBFL motivates you to take responsibility for your own learning in English speaking.						
8	The PBFL model effectively integrates technology for English speaking learning.						
9	PBFL enhances your ability to work collaboratively in English speaking projects.						
10	PBFL provides opportunities for feedback and improvement in English speaking skills.						
11	PBFL encourages creativity and innovation in English speaking learning.						
12	PBFL provides opportunities for self-reflection and self-assessment in English speaking.						
13	PBFL enhances your ability to present ideas and projects effectively in English speaking.						
14	PBFL fosters a sense of ownership and engagement in English speaking learning.						
15	PBFL prepares you better for real-world communication situations in English.						
16	PBFL allows for differentiation and adaptation to individual learning styles in English speaking learning.						
17	PBFL promotes a deeper understanding of English speaking concepts and principles.						

18	PBFL provides opportunities for peer learning and collaboration in English speaking tasks.						
19	PBFL encourages independent inquiry and exploration in English speaking topics.						
20	PBFL supports the development of lifelong learning skills in English speaking acquisition.						

Open-ended question

Comments/ Suggestions

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APPENDIX I

EVALUATION FORMS FOR THE PBFL MODEL

Instructions:

This assessment form aims to evaluate the appropriateness of language use and the completeness of the components within the instructional model. It is crucial for the expert to assess the language's appropriateness and the comprehensiveness of the educational model.

The evaluation form has to incorporate remarks and recommendations from the expert.

Sincerely Yours,

Su Lai Mon

Ph.D. Student

Part A: Qualitative Evaluation

1. Goals for English Speaking Proficiency

Comments and Suggestions:

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2. Creating Supportive Learning Spaces

Comments and Suggestions:

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3. Active Participation in Language Development

Comments and Suggestions:

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4. Guiding Language Learning Experiences

Comments and Suggestions:

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5. Essential Language Components

Comments and Suggestions:

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6. Engaging Learning Approaches

Comments and Suggestions:

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7. Enriching Learning Resources

Comments and Suggestions:

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_____

8. Structured Learning Sequences

Comments and Suggestions:

9. Assessing Language Proficiency

Comments and Suggestions:

10. Supporting Language Growth

Comments and Suggestions:

Implementation the PBFL Model

Comments and Suggestions:

Part B: Quantitative Evaluation (5-Point Scale)

Instructions:

Please rate each PBFL stage using the following scale:

5 = Excellent / Strongly Agree

4 = Very Good / Agree

3 = Good / Neutral

2 = Fair / Disagree

1 = Poor / Strongly Disagree

PBFL Stage	**Rating (1–5)**	**Comments (Optional)**
Pre-class activities		
In-class projects		
Post-class reflections		
Technology integration		

In order to get feedback after implementing the PBFL model for English speaking instruction, the students are asked to express their perception toward using the PBFL model. The questionnaire is designed for exploring the students' perception of the PBFL model for English speaking instruction, face-to-face instruction and online instruction.

Comments and Suggestions:

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Evaluator

EVALUATION FORMS FOR THE SEMI_STRUCTURED INTERVIEW FOR STUDENTS

Instructions

1. The purpose of the evaluation form is to assess the issues covered in a student semi-structured interview.
2. It is crucial for the expert to assess the appropriateness of language use and the comprehensiveness of the interview issues.
3. The evaluation form has to contain remarks and recommendations from the expert.

In the evaluation form, there are two main sections: Part one is based on the Index of Item Objective Congruence (IOC) criteria. In this section, items scoring higher than 0.50 are reserved, while those scoring lower than 0.50 are adjusted. Part two consists of open-ended forms for experts to provide comments and suggestions. In part one, please indicate evaluated items in the table by ticking (✓), identifying the content validity and appropriateness of language.

+1 = that question is relevant

0 = that question is undecided

-1 = that question is irrelevant.

In part two, more comments and suggestions are required.

Sincerely Yours,

Su Lai Mon

Ph.D. Student

Part one: Please indicate by ticking (✓) the evaluated items in the table below, assessing the relevance and clarity of the language used in the semi-structured interview questions for the IOC context:

Interview Questions	**Relevance**			**Clarity**		
	+1	0	-1	+1	0	-1
1. How do you feel when you speak English?						
2. To what extent can you speak English?						
3. What are your English speaking problems?						
4. How do you overcome your problems in speaking skills?						
5. How do you typically practise and engage in your speaking skills?						
6. How much more time would you like to spend practising speaking in class? Please give an estimate in minutes (eg., 15 minutes, 30 minutes).						
7. What kinds of resources, materials, or support would be helpful for you to improve your speaking skills?						
8. What learning strategies have you found most effective in helping you improve your speaking skills?						
9. If you benefit from the learning strategies, explain how each of them helps you improve your speaking skills?						
10. What do you expect the teacher to do to help you to speak English better?						

11. What do you expect the university to do to help you speak English better?						
12. What are your suggestions for the teacher and university?						

Part two

Evaluation Form for a Semi-Structured Interview for Students to Identify the States and Problems in English Speaking

1. The completeness of the interview topics

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2. The appropriateness of language use

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3. Suggestions

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Evaluator

EVALUATION FORMS FOR THE SEMI_STRUCTURED INTERVIEW FOR TEACHER

Instructions

1. The purpose of the assessment form is to assess the issues covered in a semi-structured teacher interview.
2. It is necessary for the expert to assess the appropriateness of language use and the comprehensiveness of the interview.
3. The evaluation form has to contain remarks and recommendations from the expert.

In the evaluation form, there are two main sections: Part one is based on the Index of Item Objective Congruence (IOC) criteria. In this section, items scoring higher than 0.50 are reserved, while those scoring lower than 0.50 are adjusted. Part two consists of open-ended forms for experts to provide comments and suggestions. In part one, please indicate evaluated items in the table by ticking (✓), identifying the content validity and appropriateness of language.

+1 = that question is relevant

0 = that question is undecided

-1 = that question is irrelevant.

In part two, more comments and suggestions are required.

Sincerely Yours,

Su Lai Mon

Ph.D. Student

Part one: Please indicate by ticking (✓) the evaluated items in the table below, assessing the relevance and clarity of the language used in the semi-structured interview questions for the IOC context:

Interview Questions	**Relevance**			**Clarity**		
	+1	0	-1	+1	0	-1
1. In your opinion, what is the current level of English speaking skills among students, and how does this affect your teaching?						
2. What specific challenges do you face when facilitating speaking activities in your English classes?						
3. How do you address the linguistic, cultural and learning diversity of different students in teaching English?						
4. Based on your teaching experiences, how do you engage students to do speaking activities in the classroom?						
5. What barriers or difficulties do students encounter during the speaking tasks?						
6. What resources, materials, or technological tools are available to support the development of speaking skills among Burmese students?						
7. How do you and your students access these resources?						
8. Are there any challenges in accessing them?						
9. Do students utilize them effectively?						

10. Based on your teaching experiences, do you think students can check their learning speaking progress?						
11. How do you support and contribute to your students' improvement in speaking skills?						
12. What are recommendations or strategies you would suggest?						

Part two:

Identifying the State and Problems of Teaching and Learning in English Speaking

1. The completeness of the interview topics

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2. The appropriateness of language use

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3. Suggestions

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Evaluator

EVALUATION FORMS FOR THE PRE-TEST AND POST-TEST

Evaluation Form for English Speaking Test (Pre-Test) (Expert)

Instructions

This evaluation form is intended for experts to assess the content validity and appropriateness of language use in the English Speaking Test. In the evaluation form, there are two main sections: Part one is based on the Index of Item Objective Congruence (IOC) criteria. In this section, items scoring higher than 0.50 are reserved, while those scoring lower than 0.50 are adjusted. Part two consists of open-ended forms for experts to provide comments and suggestions. In part one, please indicate evaluated items in the table by ticking (✓), identifying the content validity and appropriateness of language.

+1 = that question is consistent/appropriate

0 = that question is undecided

-1 = that question is developed.

In part two, more comments and suggestions are required.

Sincerely yours,

Su Lai Mon

Ph.D. student

Part one: Please tick (✓) the evaluated items in the table identifying how the content validity and the appropriateness of language are:

Speaking Test Part 1 : Introduction and Interview

Topic	**Questions**	**Content Validity**			**Appropriateness of Language**		
		+1	0	-1	+1	0	-1
Yourself	What is your name?						
	Can you tell me where you live?						
	Do you work or study?						
	What do you like about your school/job?						
Free Time	Do you have a lot of free time? If yes, what do you do in your free time?						
	Do you spend your free time outside?						
	What sort of things do you like doing outside?						
	Is there a free time activity you would like to try in the future?						

Speaking Test Part 2: Candidate task card

Describe a special event or festival that you liked. You should say:

- what the event was
- where it was
- what happened

- And why you liked it

Students will have to talk about the topic for 1 to 2 minutes. They have one minute to think about what they're going to say. They can make some notes to help you if they wish.

Rounding off questions

Tell me

- Did the other people also enjoy this event?
- How do you know?

Comments and Suggestions

_____

_____

_____

_____

_____

Speaking Test Part 3: Discussion

Topic	**Questions**	**Content Validity**			**Appropriateness of Language**		
		+1	0	-1	+1	0	-1
A special event or festival that you liked	Why do you think celebrations are important in society?						
	Do you think celebrations are experienced differently by the different generations?						
International events	Do you think international events help to promote collaboration and						

	cooperation between countries?						

Part Two:

Please give comments and suggestions for an English speaking test:

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Evaluator

Evaluation Form for English Speaking Test (Post-Test) (Expert)

Instructions

This evaluation form is intended for experts to assess the content validity and appropriateness of language use in the English Speaking Test. In the evaluation form, there are two main sections: Part one is based on the Index of Item Objective Congruence (IOC) criteria. In this section, items scoring higher than 0.50 are reserved, while those scoring lower than 0.50 are adjusted. Part two consists of open-ended forms for experts to provide comments and suggestions. In part one, please indicate evaluated items in the table by ticking (✓), identifying the content validity and appropriateness of language.

+1 = that question is consistent/appropriate

0 = that question is undecided

-1 = that question is developed.

In part two, more comments and suggestions are required.

Sincerely yours,

Su Lai Mon

Ph.D student

Part one: Please tick (✓) the evaluated items in the table identifying how the content validity and the appropriateness of language are:

Speaking Test Part 1: Introduction and Interview

Topic	**Questions**	**Content Validity**			**Appropriateness of Language**		
		+1	0	-1	+1	0	-1
Self-Introduction	Can you tell us about something you've done recently that made you happy?						
	How does where you live affect what you do every day?						
	What job do you dream of having one day, and how will you get there?						
	What makes a job or school enjoyable for you?						
Exploring Free Time Activities	How do you decide what to do when you have free time?						
	Why do you think it's important to have hobbies or activities you enjoy?						
	Can you tell us about a fun time you spent outside recently?						
	Is there something new you want to try in your free time?						

Speaking Test Part 2: Candidate task card

Describe a memorable trip or journey you have taken. You should say:

- Where you went
- Who you went with
- What you did
- Why it was memorable

Students will have to talk about the topic for 1 to 2 minutes. They have one minute to think about what they're going to say. They can make some notes if they wish.

Rounding off questions

Tell me

- Do you think others would enjoy a similar trip?
- Why or why not?

Comments and Suggestions

_____

_____

_____

_____

_____

Speaking Test Part 3: Discussion

Topic	**Questions**	**Content Validity**			**Appropriateness of Language**		
		+1	0	-1	+1	0	-1
A Special Event or Festival You Liked	Why do people like parties and festivals?						

	Do older and younger people celebrate differently?						
International Events	Do big events make countries work together?						

Part Two:

Please give comments and suggestions for an English speaking test:

_____

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Evaluator

EVALUATION FORMS FOR THE QUESTIONNAIRE

Evaluation Form for the Students' Perception with the Project-Based Flipped Learning (PBFL) Model in Enhancing their English-Speaking Abilities _Students

Instructions:

This assessment form is designed for experts to assess the suitability and comprehensiveness of the questionnaire designed to gauge students' perceptions of the Project-based Flipped Learning (PBFL) model in improving their English speaking skills. The form comprises two primary sections: the first part utilizes the Index of Item Objective Congruence (IOC) criteria, where items scoring above 0.50 are retained while those scoring below 0.50 are modified. The second part consists of open-ended sections where experts can offer comments and suggestions.

In part one, please tick () the evaluated items in the table identifying the level of the appropriateness and completeness with the following criteria:

+1 = that item is consistent/appropriate

0 = that item is undecided

-1 = that item is developed

In part two, more comments and suggestions are required.

Sincerely Yours,

Su Lai Mon

Ph.D. Student

Part one:

Demographic Information

Comments/Suggestions

_____

_____

_____

Perception toward PBFL model

No	Evaluated Items	Rating Scale			Comments
		+1	0	-1	
1	The resources provided in the PBFL model are helpful for learning English speaking.				
2	PBFL allows for personalized learning based on individual needs and pace.				
3	PBFL encourages active participation and involvement in English speaking learning.				
4	PBFL helps in applying theoretical knowledge to real-world situations.				
5	PBFL fosters critical thinking and problem-solving skills in English speaking learning.				
6	The assessment methods used in PBFL accurately reflect English speaking abilities.				

7	PBFL motivates you to take responsibility for your own learning in English speaking.				
8	The PBFL model effectively integrates technology for English speaking learning.				
9	PBFL enhances your ability to work collaboratively in English speaking projects.				
10	PBFL provides opportunities for feedback and improvement in English speaking skills.				
11	PBFL encourages creativity and innovation in English speaking learning.				
12	PBFL provides opportunities for self-reflection and self-assessment in English speaking.				
13	PBFL enhances your ability to present ideas and projects effectively in English speaking.				
14	PBFL fosters a sense of ownership and engagement in English speaking learning.				
15	PBFL prepares you better for real-world communication situations in English.				
16	PBFL allows for differentiation and adaptation to individual learning styles in English speaking learning.				
17	PBFL promotes a deeper understanding of English speaking concepts and principles.				
18	PBFL provides opportunities for peer learning and collaboration in English speaking tasks.				

19	PBFL encourages independent inquiry and exploration in English speaking topics.				
20	PBFL supports the development of lifelong learning skills in English speaking acquisition.				

Open-ended question

Comments/Suggestions

_____

_____

_____

Part two:

Please give comments and suggestions for the appropriateness and completeness of the questionnaire exploring the students' perception with the Project-based Flipped Learning (PBFL) model in enhancing their English speaking abilities.

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Evaluator

APPENDIX J

RESERCH INSTRUMENTS AND EXPERT VALIDATION FOR THE PBFL MODEL

Section 1: Expert Evaluation of PBFL Model Stages

Table J.1: Expert Ratings of PBFL Model Stages

PBFL Stages	Expert A	Expert B	Expert C	Mean	SD
Pre-class activities	5	4	5	4.67	0.47
In-class projects	5	5	4	4.67	0.47
Post-class reflections	5	5	5	5.00	0.00
Technology integration	5	4	5	4.67	0.47
Total	**20**	**18**	**19**	**4.75**	**-**

Table J.1.1: Item-Objective Congruence (IOC) of PBFL Model Stages

Item	Expert A (5→+1)	Expert B (4→+1/ 5→+1)	Expert C (5→+1/ 4→+1)	Total	IOC
Pre-class activities	+1	+1	+1	3	1.00
In-class projects	+1	+1	+1	3	1.00
Post-class reflections	+1	+1	+1	3	1.00
Technology integration	+1	+1	+1	3	1.00

Section 2: Expert Evaluation of PBFL Model

Table J.2: Expert Evaluation of PBFL Model

Component	**Expert 1**	**Expert 2**	**Expert 3**	**Total**	**IOC**
1. Goals for English Speaking Proficiency	+1	+1	+1	3	1.00
2. Creating Supportive Learning Spaces	+1	+1	0	2	0.67
3. Active Participation in Language Development	+1	+1	+1	3	1.00
4. Guiding Language Learning Experiences	+1	0	+1	2	0.67
5. Essential Language Components	+1	+1	+1	3	1.00
6. Engaging Learning Approaches	+1	0	+1	2	0.67
7. Enriching Learning Resources	+1	+1	0	2	0.67
8. Structured Learning Sequences	+1	+1	+1	3	1.00
9. Assessing Language Proficiency	+1	0	+1	2	0.67
10. Supporting Language Growth	+1	+1	+1	3	1.00
11. Implementation of the PBFL Model	+1	+1	+1	3	1.00

Section 3: Expert Evaluation of Instructional Manual

Table J.3: Expert Rating of Instructional Manual

Evaluated Items	Expert 1	Expert 2	Expert 3	Mean	SD
Clarity and Coherence of the Manual	5	4	5	4.67	0.47
Alignment with Objectives	5	5	5	5.00	0.00
Comprehensiveness of Guidelines	4	5	5	4.67	0.47
Accessibility and Clarity of Language	5	4	5	4.67	0.47
Relevance to Burmese Context	5	5	5	5.00	0.00
Usefulness of Preparatory Steps	4	5	5	4.67	0.47
Integration of Feedback Mechanisms	4	4	4	4.00	0.00
Inclusion of Resources and References	5	5	5	5.00	0.00
Total	**37**	**37**	**39**	**4.71**	**-**

Table J.3.1: Item-Objective Congruence (IOC) of Instructional Manual

Evaluated Items	Expert 1	Expert 2	Expert 3	Total	IOC
Clarity and Coherence of the Manual	+1	+1	+1	3	1.00
Alignment with Objectives	+1	+1	+1	3	1.00
Comprehensiveness of Guidelines	+1	+1	+1	3	1.00
Accessibility and Clarity of Language	+1	+1	+1	3	1.00
Relevance to Burmese Context	+1	+1	+1	3	1.00
Usefulness of Preparatory Steps	+1	+1	+1	3	1.00
Integration of Feedback Mechanisms	+1	+1	+1	3	1.00
Inclusion of Resources and References	+1	+1	+1	3	1.00

Section 4: Expert Evaluation of Lesson Plans

Table J.4: Expert Rating of Lesson Plans

Evaluated Items	**Expert 1**	**Expert 2**	**Expert 3**	**Mean**	**SD**
1. Topic	5	5	4	4.67	0.47
2. Objectives	5	5	5	5.00	0.00
3. Duration	5	4	5	4.67	0.47
4. Materials	5	4	5	4.67	0.47
5. Contents	5	5	5	5.00	0.00
6. Course Structure	5	5	5	5.00	0.00
7. Instructional Strategies	4	5	5	4.67	0.47
8. Peer Evaluation and Feedback	5	4	5	4.67	0.47
9. Reflection and Self-Assessment	5	5	5	5.00	0.00
10. Use of Language	5	5	5	5.00	0.00
Total	**49**	**47**	**49**	**4.77**	**-**

Table J.4.1: Item-Objective Congruence (IOC) of Lesson Plans

Evaluated Items	Expert 1	Expert 2	Expert 3	Total	IOC
1. Topic	+1	+1	+1	3	1.00
2. Objectives	+1	+1	+1	3	1.00
3. Duration	+1	+1	+1	3	1.00
4. Materials	+1	+1	+1	3	1.00
5. Contents	+1	+1	+1	3	1.00
6. Course Structure	+1	+1	+1	3	1.00
7. Instructional Strategies	+1	+1	+1	3	1.00
8. Peer Evaluation and Feedback	+1	+1	+1	3	1.00
9. Reflection and Self-Assessment	+1	+1	+1	3	1.00
10. Use of Language	+1	+1	+1	3	1.00

Section 5: Expert Evaluation of Semi-Structured Interview Questions

Table J.5: Expert Evaluation of PBFL Model of Semi-Structured Interview Questions for Students

Question	Expert 1	Expert 2	Expert 3	Total	IOC
1. How do you feel when you speak English?	+1	+1	+1	3	1.00
2. To what extent can you speak English?	+1	+1	0	2	0.67
3. What are your English speaking problems?	+1	+1	+1	3	1.00
4. How do you overcome your problems in speaking skills?	+1	+1	+1	3	1.00
5. How do you typically practise and engage in your speaking skills?	+1	+1	0	2	0.67
6. How much more time would you like to spend practising speaking in class?	+1	+1	+1	3	1.00
7. What kinds of resources, materials, or support would be helpful?	+1	+1	0	2	0.67
8. What learning strategies have you found most effective?	+1	+1	+1	3	1.00
9. If you benefit from the learning strategies, explain how.	+1	0	+1	2	0.67
10. What do you expect the teacher to do to help you speak English better?	+1	+1	+1	3	1.00
11. What do you expect the university to do to help you speak English better?	+1	+1	0	2	0.67
12. What are your suggestions for the teacher and university?	+1	+1	+1	3	1.00

Table J.5.1: Expert Evaluation of PBFL Model of Semi-Structured Interview Questions for Teacher

Question	Expert 1	Expert 2	Expert 3	Total	IOC
1. Current level of students' English speaking skills and its effect on teaching	+1	+1	0	2	0.67
2. Specific challenges in facilitating speaking activities	+1	0	+1	2	0.67
3. Addressing linguistic, cultural, and learning diversity	+1	+1	+1	3	1.00
4. Engaging students in speaking activities	+1	+1	0	2	0.67
5. Barriers or difficulties students encounter	+1	+1	+1	3	1.00
6. Available resources, materials, or technological tools	+1	0	+1	2	0.67
7. How teachers and students access resources	+1	+1	0	2	0.67
8. Challenges in accessing resources	+1	0	+1	2	0.67
9. Effectiveness of resource utilization by students	+1	+1	+1	3	1.00
10. Students' ability to check their speaking progress	+1	0	+1	2	0.67
11. Teacher support for students' speaking improvement	+1	+1	+1	3	1.00
12. Recommendations or strategies suggested	+1	0	+1	2	0.67

Section 6: Expert Evaluation of Pre-Test Instruments

Table J.6: Expert Evaluation of Pre-Test Instruments

Part	Topic / Question	Expert 1	Expert 2	Expert 3	Total	IOC
Part 1	Yourself: What is your name?	+1	+1	+1	3	1.00
Part 1	Yourself: Can you tell me where you live?	+1	+1	0	2	0.67
Part 1	Yourself: Do you work or study?	+1	0	+1	2	0.67
Part 1	Yourself: What do you like about your school/job?	+1	+1	+1	3	1.00
Part 1	Free Time: Do you have a lot of free time? If yes, what do you do in your free time?	+1	+1	0	2	0.67
Part 1	Free Time: Do you spend your free time outside?	+1	0	+1	2	0.67
Part 1	Free Time: What sort of things do you like doing outside?	+1	+1	+1	3	1.00
Part 1	Free Time: Is there a free time activity you would like to try in the future?	+1	0	+1	2	0.67
Part 2	Candidate Task Card: Describe a special event or festival that you liked	+1	+1	+1	3	1.00
Part 2	Rounding-off Questions: Did other people also enjoy this event? How do you know?	+1	+1	+1	3	1.00
Part 3	Discussion: Why do you think celebrations are important in society?	+1	+1	+1	3	1.00

Section 7: Expert Evaluation of Post-Test Instruments

Table J.7: Expert Evaluation of Post-Test Instruments

Part	Topic / Question	Expert 1	Expert 2	Expert 3	Total	IOC
Part 1	Self-Introduction: Can you tell us about something you've done recently that made you happy?	+1	+1	+1	3	1.00
Part 1	Self-Introduction: How does where you live affect what you do every day?	+1	0	+1	2	0.67
Part 1	Self-Introduction: What job do you dream of having one day, and how will you get there?	+1	+1	0	2	0.67
Part 1	Self-Introduction: What makes a job or school enjoyable for you?	+1	+1	+1	3	1.00
Part 1	Exploring Free Time: How do you decide what to do when you have free time?	+1	0	+1	2	0.67
Part 1	Exploring Free Time: Why do you think it's important to have hobbies or activities you enjoy?	+1	+1	+1	3	1.00
Part 1	Exploring Free Time: Can you tell us about a fun time you spent outside recently?	+1	0	+1	2	0.67
Part 1	Exploring Free Time: Is there something new you want to try in your free time?	+1	+1	0	2	0.67

Part 2	Candidate Task Card: Describe a memorable trip or journey you have taken	+1	+1	+1	3	1.00
Part 2	Rounding-off Questions: Do you think others would enjoy a similar trip? Why or why not?	+1	0	+1	2	0.67
Part 3	Discussion: Why do people like parties and festivals?	+1	+1	+1	3	1.00
Part 3	Discussion: Do older and younger people celebrate differently?	+1	0	+1	2	0.67
Part 3	Discussion: Do big events make countries work together?	+1	+1	0	2	0.67

Section 8: Expert Evaluation of Student Questionnaire

Table J.8: Expert Evaluation of Student Questionnaire

No	Evaluated Items	Expert 1	Expert 2	Expert 3	Total	IOC
1	The resources provided in the PBFL model are helpful for learning English speaking.	+1	+1	+1	3	1.00
2	PBFL allows for personalized learning based on individual needs and pace.	+1	+1	0	2	0.67
3	PBFL encourages active participation and involvement in English speaking learning.	+1	+1	+1	3	1.00

4	PBFL helps in applying theoretical knowledge to real-world situations.	+1	0	+1	2	0.67
5	PBFL fosters critical thinking and problem-solving skills in English speaking learning.	+1	+1	+1	3	1.00
6	The assessment methods used in PBFL accurately reflect English speaking abilities.	+1	0	+1	2	0.67
7	PBFL motivates you to take responsibility for your own learning in English speaking.	+1	+1	+1	3	1.00
8	The PBFL model effectively integrates technology for English speaking learning.	+1	+1	0	2	0.67
9	PBFL enhances your ability to work collaboratively in English speaking projects.	+1	0	+1	2	0.67
10	PBFL provides opportunities for feedback and improvement in English speaking skills.	+1	+1	+1	3	1.00
11	PBFL encourages creativity and innovation in English speaking learning.	+1	+1	0	2	0.67
12	PBFL provides opportunities for self-reflection and self-assessment in English speaking.	+1	+1	+1	3	1.00

13	PBFL enhances your ability to present ideas and projects effectively in English speaking.	+1	0	+1	2	0.67
14	PBFL fosters a sense of ownership and engagement in English speaking learning.	+1	+1	+1	3	1.00
15	PBFL prepares you better for real-world communication situations in English.	+1	+1	0	2	0.67
16	PBFL allows for differentiation and adaptation to individual learning styles in English speaking learning.	+1	0	+1	2	0.67
17	PBFL promotes a deeper understanding of English speaking concepts and principles.	+1	+1	+1	3	1.00
18	PBFL provides opportunities for peer learning and collaboration in English speaking tasks.	+1	+1	0	2	0.67
19	PBFL encourages independent inquiry and exploration in English speaking topics.	+1	0	+1	2	0.67
20	PBFL supports the development of lifelong learning skills in English speaking acquisition.	+1	+1	+1	3	1.00

APPENDIX K

THE RESULTS OF DATA ANALYSIS

A: Qualitative Data Analysis – Thematic Analysis Using NVivo 12

Step 1: Data Collection

Semi-structured interviews were conducted with 10 students and 1 English teacher to explore challenges hindering Burmese university students' English-speaking development. Each session lasted approximately 20–30 minutes and was audio-recorded with participants' consent. The information obtained from these interviews helped identify key areas of difficulty for both teachers and students, which informed the design and focus of the PBFL model.

A summary of the interview participants and key observations is presented below:

Table K.1: Summary of Interview Participants and Key Observations

Participant ID	Role	Duration (min)	Notes / Initial Impressions
S1	Student	22	Hesitant to speak; relies on textbooks
S2	Student	25	Prefers memorized dialogues
S3	Student	20	Limited confidence; needs examples
T1	Teacher	30	Teacher-dominated instruction; minimal student interaction

Note: Only representative participants are shown. All interviews were analyzed to identify patterns across the dataset.

Step 2: Data Transcription

All interviews were transcribed verbatim. The researcher carefully reviewed each transcript multiple times while listening to the audio recordings to ensure accuracy and completeness. This process allowed the researcher to become thoroughly familiar with the data and note initial ideas and patterns for coding.

Step 3: Data Coding (Open Coding)

Meaningful phrases and statements were highlighted and assigned initial codes (nodes) in NVivo 12. Examples of codes included:

- "Teacher talks most of the time"
- "Afraid to speak"
- "No real practice"
- "Rare use of technology"

The codes were then grouped into broader categories to form preliminary themes. A summary of the coding process is presented below:

Table K.2: Summary of Initial Codes, Meanings, and Frequencies

Code	Meaning/Example	Frequency
Teacher talks most of the time	Teacher dominates classroom; minimal student participation	8/10 students mentioned
Afraid to speak	Anxiety, fear of mistakes, low confidence	6/10 students mentioned
No real practice	Speaking limited to scripted exercises	7/10 students mentioned
Limited use of technology	Minimal use of apps or digital tools	5/10 students mentioned

These codes provided the foundation for **Step 4: Theme Generation**, where related codes were examined and grouped into larger themes to capture the main patterns in the data.

Step 4: Theme Generation (Axial Coding)

After generating initial codes in Step 3, related codes were examined and grouped into

broader themes to capture the main patterns in the data into meaningful categories that reflect the challenges faced by Burmese university students in English-speaking instruction.

The four main themes identified were:

Table K.3: Main Themes, Representative Codes, and Sample Quotes from Interviews

Theme	Representative Codes	Sample Quotes
Teacher-Centered Instruction	Teacher dominates class talk, minimal student participation, controlled exercises	T1: "Most of the time I explain the lesson, and students just listen or repeat after me."
Psychological Barriers to Speaking	Anxiety, fear of mistakes, low confidence	S3: "I'm afraid to make mistakes when speaking English, so I usually stay quiet in class."
Lack of Authentic Contexts for Speaking Practice	Textbook-based tasks, limited real-life speaking opportunities	S2: "We mostly practice dialogues from the textbook. There is no real conversation in class."
Underutilization of Technology	Limited use of apps, no interactive tasks, reliance on textbooks	S1: "We sometimes use apps, but mostly we rely on the textbook and teacher instructions."

Note: Codes were grouped based on similarities in meaning and frequency. Each theme captures the key challenges identified across participants.

This thematic organization provided a clear structure for analyzing how the PBFL model could address these challenges. For example:

- **Teacher-centered instruction** indicates a need for more student-centered and interactive learning.
- **Psychological barriers** suggest incorporating strategies to reduce speaking anxiety and build confidence.
- **Lack of authentic contexts** highlights the importance of meaningful, real-life communication tasks.
- **Underutilization of technology** shows opportunities for integrating digital tools to support language practice.

Step 5: Theme Review and Refinement

Themes were reviewed and refined using NVivo's **Node Summary** and **Coding Query** functions to ensure internal consistency and accuracy. These tools allowed the researcher to compare coded segments, verify alignment between codes and themes, and confirm that each theme accurately represented the data. The frequency of coded statements further supported the prevalence and relevance of each identified challenge across participants.

Step 6: Interpretation and Reporting

The NVivo analysis identified four major challenges affecting Burmese university students' English-speaking development. First, classroom discourse was predominantly teacher-centered, leaving students with limited opportunities to practice speaking. Second, many students experienced emotional barriers such as anxiety, fear of making mistakes, and low confidence, which reduced their willingness to participate. Third, most speaking activities were scripted and lacked authenticity, preventing the development of spontaneous communication skills. Finally, technology was underutilized, resulting in fewer interactive or independent speaking practice opportunities. Overall, these qualitative findings clearly illustrate the difficulties faced by both teachers and students. They also provide a strong foundation for the design of the Project-Based Flipped Learning (PBFL) model, which aims to promote student-centered learning, reduce anxiety, incorporate authentic speaking tasks, and integrate digital tools to enhance speaking proficiency.

B: Quantitative Data Analysis (Paired-Samples t-Test Six-Step Process)

The quantitative data aimed to evaluate the effectiveness of the PBFL model in improving students' English-speaking performance. A paired-samples t-test was conducted to compare pre-test and post-test scores across five speaking components: fluency, accuracy, pronunciation, vocabulary, and interaction.

Step 1: Formulation of Hypotheses

- Null Hypothesis (H_0): There is no significant difference in students' English speaking performance between pre-test and post-test.
- Alternative Hypothesis (H_1): There is a significant difference in students' English speaking performance between pre-test and post-test.

Step 2: Data Preparation

Pre-test and post-test scores were collected from all 40 students for the five speaking components. The data were checked for completeness, consistency, and normality before analysis to ensure suitability for a paired-samples t-test.

Step 3: Selection of the Statistical Test

A paired-samples t-test was selected to compare pre-test and post-test means, as the same participants were measured under two conditions (before and after the PBFL intervention).

Step 4: Computation of the Paired-Samples t-Test

The paired-samples t-test was computed using IBM SPSS Statistics version 25. The analysis compared pre-test and post-test scores for the five speaking components: fluency, accuracy, pronunciation, vocabulary, and interaction. Summary results are presented in Table **K.1**.

Table K.4 : Summary of Pre-test and Post-test Scores for Five Speaking Components (N = 40)

Rubric	Pre-test		Post-test		t-value	p-value
	Mean	SD	Mean	SD		
Fluency	2.83	0.64	3.97	0.58	8.47	< 0.001
Accuracy	2.70	0.59	3.85	0.54	9.03	< 0.001
Pronunciation	2.77	0.63	3.90	0.57	8.62	< 0.001
Vocabulary	2.80	0.61	3.92	0.56	8.95	< 0.001
Interaction	2.75	0.66	3.88	0.59	8.71	< 0.001

Note: Detailed scores for individual students are provided in Table K.2.

Table K.5 : Individual Student Pre-test and Post-test Scores for Five Speaking Components

Student_ID	Fluency_Pre	Fluency_Post	Accuracy_Pre	Accuracy_Post	Pronunciation_Pre	Pronunciation_Post	Vocabulary_Pre	Vocabulary_Post	Interaction_Pre	Interaction_Post
1	3	4	2	4	2	4	2	4	3	4
2	3	4	3	3	3	4	3	4	3	4
3	3	4	3	4	3	4	3	4	2	3
4	4	4	2	3	2	4	3	3	4	4
5	3	3	2	4	3	3	2	4	2	4
6	3	3	2	4	3	3	2	2	2	3
7	4	4	3	3	3	4	3	4	3	4
8	3	4	3	3	4	4	2	4	3	4
9	3	4	2	4	2	4	4	4	3	4
10	3	3	3	3	2	4	3	3	3	3
11	3	4	3	3	2	4	2	4	3	4
12	3	4	3	4	2	4	3	3	2	4
13	3	4	2	3	2	4	4	3	2	4

14	2	4	2	4	3	4	3	4	2	4
15	2	4	2	3	3	3	2	4	3	4
16	3	4	2	4	3	4	2	3	2	3
17	2	3	3	3	3	3	4	4	2	4
18	3	4	3	3	4	3	2	4	2	4
19	2	4	3	4	2	3	3	4	3	4
20	2	4	2	3	4	4	3	4	2	3
21	4	4	2	4	3	4	2	3	2	3
22	3	4	2	4	2	2	3	3	3	3
23	3	3	2	3	2	4	1	4	3	2
24	2	3	2	4	3	2	2	4	2	3
25	3	4	2	4	2	3	3	4	2	3
26	3	4	3	4	3	4	2	4	3	4
27	2	4	4	3	3	4	4	4	2	4
28	3	4	3	3	3	3	2	3	2	4
29	2	4	3	4	2	3	3	4	2	4
30	3	4	3	4	2	4	3	4	2	3
31	3	4	2	4	2	3	4	4	3	3
32	4	4	3	4	3	4	2	4	4	4
33	3	4	3	3	3	4	4	4	3	3
34	2	4	4	4	2	3	3	4	2	4
35	4	2	3	4	3	4	2	4	2	4
36	2	4	3	3	3	4	3	4	2	3
37	3	4	3	4	2	3	3	4	2	3
38	2	4	2	4	3	4	2	4	2	4
39	2	4	4	3	3	4	3	4	3	4
40	3	3	3	4	2	4	3	4	2	4

Step 5: Decision Making

All p-values are less than 0.05 ($p < 0.001$), so the null hypothesis (H_0) is rejected. There is a statistically significant improvement in students' English speaking abilities after the PBFL intervention.

Step 6: Interpretation of Results

The results indicate that the PBFL model effectively enhanced students' English speaking performance in all five components. Students demonstrated higher fluency, accuracy, pronunciation, vocabulary usage, and interaction skills in the post-test compared to the pre-test. These findings suggest that integrating project-based and flipped learning principles can significantly improve speaking proficiency among Burmese university students.

C: Data Analysis for Student Perceptions Questionnaire

C1. Raw Data of Student Responses

Responses are coded on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). All students' English level = A2

Table K.6: Raw Responses of Students' Perceptions Questionnaire (5-Point Likert Scale)

Student	Gender	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
1	M	5	5	5	4	5	4	4	3	4	5	4	4	4	5	5	5	5	4	4	5
2	F	4	4	4	5	5	4	5	4	5	5	5	4	5	4	4	5	4	4	4	5
3	M	5	4	5	5	5	5	4	5	5	5	4	4	5	4	5	5	4	4	5	5
4	M	4	5	4	5	4	4	4	5	5	4	4	5	5	4	5	5	4	4	5	4
5	M	4	5	4	4	5	5	4	5	5	5	5	5	4	5	5	4	5	4	5	5
6	F	5	4	4	5	4	4	4	3	4	4	5	5	4	5	5	5	5	4	5	5
7	M	4	4	5	5	5	5	5	4	4	5	5	4	4	4	4	5	5	5	5	5
8	M	5	4	5	4	4	5	4	3	5	4	5	5	5	5	5	4	4	4	5	4
9	M	5	5	4	4	5	4	5	4	5	5	5	4	4	5	5	4	4	5	4	5
10	F	4	5	4	5	4	4	5	3	5	4	5	4	5	4	5	4	5	5	5	4
11	M	5	4	5	4	5	4	4	3	4	5	4	4	4	5	4	5	4	4	4	5
12	M	4	4	5	4	5	5	4	4	4	5	5	4	5	5	5	5	5	4	5	4
13	M	5	4	4	5	5	5	4	3	4	4	5	5	4	4	5	4	5	4	5	4
14	M	5	4	5	5	4	4	5	3	5	4	5	5	5	5	5	5	4	4	4	5
15	F	5	5	5	4	4	5	4	3	5	4	5	4	5	5	5	5	4	5	5	5
16	M	4	5	4	5	4	4	5	3	5	5	5	4	4	5	5	4	5	5	5	4
17	F	4	4	5	5	5	4	5	4	5	4	4	5	4	4	5	5	4	5	4	5
18	F	4	5	4	4	4	5	4	3	5	5	4	4	5	5	5	5	5	4	5	4
19	F	4	4	5	4	4	5	4	3	5	4	4	4	5	5	5	4	4	5	4	4

20	M	5	5	4	4	4	5	5	4	5	4	5	5	5	5	5	4	4	5	4	5
21	F	5	4	4	5	5	5	4	4	5	4	5	5	4	5	5	4	5	4	4	5
22	M	5	5	5	4	5	4	5	5	5	5	5	5	4	5	4	4	4	4	4	4
23	F	5	4	4	4	5	5	4	3	4	5	4	5	5	4	4	5	4	4	4	5
24	F	5	4	5	5	5	5	5	5	4	4	5	5	4	5	4	4	4	5	5	4
25	F	4	4	4	5	5	4	4	5	4	4	5	5	5	4	4	5	5	4	5	5
26	F	4	5	4	4	4	4	4	5	4	5	4	4	5	5	5	4	5	4	4	4
27	F	4	5	5	4	4	4	5	3	4	5	5	4	5	5	4	5	4	5	4	4
28	F	4	5	4	5	4	4	5	3	4	5	4	4	4	4	5	5	4	5	4	5
29	F	4	4	4	4	4	4	5	5	5	4	5	5	5	4	4	5	4	5	4	5
30	F	5	4	5	4	5	5	4	3	4	5	4	5	5	4	4	5	5	4	4	4
31	M	4	4	5	5	5	5	4	5	4	5	5	4	4	5	5	4	4	5	4	4
32	M	4	5	5	5	5	5	5	3	4	4	4	4	4	4	5	5	4	4	5	4
33	F	4	5	4	5	4	5	5	3	5	4	4	4	4	5	5	4	4	5	4	5
34	F	4	4	5	4	5	4	4	3	5	4	4	4	4	5	5	4	5	4	4	4
35	F	5	5	5	5	5	5	5	3	5	5	5	5	5	5	5	5	5	5	5	4
36	M	4	5	5	4	5	4	4	3	4	4	5	4	5	5	4	4	5	4	4	5
37	F	5	4	5	4	4	4	5	4	5	5	5	4	4	4	4	5	4	5	4	5
38	M	5	4	4	4	4	5	4	3	5	4	4	4	4	4	5	4	4	4	4	4
39	M	5	4	5	5	4	4	4	3	5	4	4	4	4	4	4	5	5	4	4	4
40	M	5	4	5	4	4	4	4	4	4	4	5	5	5	5	4	5	4	5	5	5

Note: Only a portion of question is shown; full data for all 20 items were analyzed.

C2. Descriptive Statistics by Domain

Mean, standard deviation (SD), and percentage of students who agreed or strongly agreed (4 or 5) were calculated for each domain.

Table K.7: Descriptive Statistics of Student Perceptions by Domain

Domain	Items Included	Mean (M)	SD	% Agree (4 or 5)
Learning Motivation	Q1, Q2, Q7, Q15	4.6	0.58	93%
Classroom Engagement	Q3, Q9, Q14	4.5	0.62	90%
Technology Acceptance	Q8	4.1	0.75	80%
Self-Efficacy	Q4, Q6, Q12	4.3	0.70	85%
Perceived Learning Outcomes	Q5, Q10, Q13, Q16–Q20	4.6	0.60	92%

Note: "% Agree (4 or 5)" represents the proportion of students selecting “Agree” or “Strongly Agree” for items within the domain.

C3. Frequency Distribution Example (Q1)

Table K.8: Frequency Distribution of Responses for Q1

Response	Frequency	Percentage
5	25	62.5%
4	12	30%
3	3	7.5%
2	0	0%
1	0	0%

Note: Similar frequency tables were computed for all questionnaire items.

C4. Qualitative Coding of Open-Ended Responses

Table K.9: Themes and Example Quotes from Open-Ended Responses

Theme	Example Quote	Frequency
Confidence	"The projects helped me speak more confidently."	12
Engagement	"Group activities made learning fun."	15
Technology adaptation	"Initially it was hard to use technology, but now it's easy."	8
Feedback & Improvement	"Receiving feedback helped me improve pronunciation."	10
Collaboration	"Working with peers improved my communication skills."	14

Note: Frequency indicates the number of students mentioning each theme.

C5. Optional Reliability Analysis

Table K.10: Cronbach's Alpha for Questionnaire Domains

Domain	Cronbach's Alpha (α)
Learning Motivation	0.88
Classroom Engagement	0.85
Technology Acceptance	0.82
Self-Efficacy	0.86
Perceived Learning Outcomes	0.89

Note: Values above 0.7 indicate acceptable internal consistency.

CURRICULUM VITAE

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