

CHAPTER I INTRODUCTION

a. Background

Speaking is an essential skill for English language learners because it helps them to communicate ideas, develop meanings, and effectively engage in social interactions (Brown, 2004; Richards, 2008). In the context of EFL, speaking has been viewed as the most challenging skill for English language learners to master, especially for senior high school students. This is due to the complex cognitive processes involved in speaking, which require students to engage in conceptual planning, linguistic formulation, and articulation of words at the same time (Kormos, 2016). These complex cognitive processes may lead to cognitive overload if they are performed without proper preparation (Sweller, 1988), which may cause students to hesitate, frequently pause during speaking, be less fluent, be grammatically inaccurate, and use fewer words.

All these difficulties were observed during the researcher's teaching practicum at SMA Al-Islam. It has been found that the students at SMA Al-Islam experienced serious difficulties in expressing their ideas in English. For instance, students remained silent during speaking activities, frequently used code-switching to Indonesian due to a lack of vocabulary, were less fluent, were grammatically inaccurate, and used fewer words during speaking. In addition, students rarely participated voluntarily due to fear of making mistakes, which may lead to negative evaluation by their friends. Moreover, the teaching of speaking at SMA Al-Islam was more teacher-centered, which provided students with fewer opportunities to rehearse and develop their ideas, causing students more anxiety and difficulties in mastering the skill of speaking.

In addition, contextual factors have contributed significantly to these challenges. Although most students at SMA Al-Islam own smartphones, technology has not been effectively used for English speaking practice. The school lacks stable internet connectivity, making it difficult for students to use technology such as Zoom for English-speaking practice. Although technology-assisted learning

cannot be effectively carried out without stable internet connectivity, there are many mobile technology tools that can be used for English speaking practice even without an internet connection. For example, voice recording and note-taking apps can be used for English-speaking practice. These tools will provide students with an opportunity to practice English speaking in a private setting before they practice in a public setting. English-speaking anxiety is a common challenge among English learners.

From a theoretical point of view, this learning condition contradicts the current communicative language teaching approach and the CEFR, which emphasizes communicative competence in English speaking (Council of Europe, 2020). According to Task-Based Language Teaching (TBLT) theory, learners' English speaking performance can be improved through various stages such as planning, rehearsal, and performance because these stages reduce cognitive overload (Skehan, 1998; Kormos, 2016). According to Skehan's trade-off hypothesis, learners experience difficulties in English speaking due to cognitive overload because learners are required to balance fluency, accuracy, and complexity simultaneously (Skehan, 1998; Sweller 1988).

Moreover, affective factors play an equally important role in speaking performance. According to the Willingness to Communicate model, learners' willingness to communicate is affected by situational anxiety, classroom atmosphere, and learners' perception of peer judgment (MacIntyre et al, 1998). Without appropriate learning strategies, learners with low confidence might avoid opportunities for speaking even if they have adequate linguistic knowledge.

Finally, the Think-Pair-Share strategy is a learning strategy that can be used to overcome cognitive and affective limitations for learners to improve their speaking skills. In this strategy, learners think individually and then share their responses with their peers and finally with the class. If this strategy is supplemented with offline mobile technology, its effectiveness can be enhanced. In this regard, note-taking apps can be used for idea organization and vocabulary preparation for learners during the Think stage. Similarly, voice-recording apps can be used for

learners to rehearse and improve their responses during the Pair stage. On the other hand, some of their recordings or live performances can be shared with the class during the Share stage. Using voice-recording technology allows learners to improve their speaking accuracy by paying attention to grammatical correctness and fluency.

Empirical studies have demonstrated that Mobile-Assisted Language Learning (MALL) can effectively improve learners' speaking performance by providing opportunities for repeated speaking practice, rehearsal, and self-monitoring, which contribute to better speaking fluency and overall speaking competence (Li, 2024; Handikaningtyas et al., 2025). Likewise, previous studies have reported that the Think-Pair-Share (TPS) strategy effectively enhances students' participation, interaction, and speaking performance in EFL classrooms by encouraging learners to think individually, discuss ideas collaboratively, and communicate their responses confidently (Kaddoura, 2013; Khaeruddin et al., 2023). However, previous studies have mainly examined the effectiveness of Mobile-Assisted Language Learning and Think-Pair-Share separately. There is still limited quantitative research investigating the integration of offline mobile technology into the Think-Pair-Share strategy as a Technology-Enhanced Think-Pair-Share model and its influence on specific speaking components, particularly fluency, accuracy, and vocabulary, in Indonesian senior high school EFL contexts.

Thus, this research aims to fill this research gap by exploring the influence of a specific Technology-Enhanced Think Pair Share model on EFL learners' speaking skills, particularly fluency, accuracy, and vocabulary, in an Indonesian senior high school context where learners can easily access offline mobile technology compared to internet-based instructional media.

b. Research Questions

1. How are the students' speaking skills before the implementation of the technology-enhanced Think Pair Share strategy?
2. How are the students' speaking skills after the implementation of the technology-enhanced Think Pair Share strategy?
3. Is there any difference in the speaking skills of students before and after the implementation of the technology-enhanced Think Pair Share strategy?

c. Research Purposes

1. To identify the students' speaking skills before the implementation of the technology-enhanced Think Pair Share strategy.
2. To identify the students' speaking skills after the implementation of the technology-enhanced Think Pair Share strategy.
3. To determine whether there is a difference in the speaking skills of students before and after the implementation of the technology-enhanced Think Pair Share strategy.

d. Research Significance

1. Theoretical Significance

From the theoretical perspective, this research contributes to second language acquisition studies by bridging cognitive models of speech production, task-based second language instruction, and the Willingness to Communicate paradigm within the framework of technology-mediated learning. It expands existing knowledge with regard to structured interaction and technological interventions that diminish cognitive load and speaking anxiety in second language performance and enhance EFL-speaking fluency, accuracy, and vocabulary.

2. Practical Significance

Functioning in the practical sense, the results of this study are anticipated to offer English language teachers an effective teaching technique to enhance their students' oral performance to an optimal level through the integration of the Think-Pair-Share technique and the use of mobile-assisted learning materials. Finally, the results of this study are expected to inform curriculum developers/English language teachers on the design of speech tasks that are directed at dealing with the cognitive problems and the affective problems that EFL learners exhibit in speech production tasks.

e. Research Scope

To ensure the research stays focused and in-depth, its scope is maintained as limited. The research is targeted at high school students learning English as a foreign language, and the skill in focus is speaking. More specifically, the research focuses on fluency, accuracy, and vocabulary as important components of speaking. The teaching method being studied is Technology-Enhanced Think-Pair-Share, and its efficacy is assessed in terms of students' performance scores in pre-tests/post-tests done in the classroom.

f. Conceptual Framework

Speaking is a complex skill for learners to master because they must process and execute conceptual planning, linguistic formulation, and articulation at the same time. Speaking ability can be assessed through certain aspects, namely fluency, accuracy, and vocabulary, as stated by Brown (2004). For EFL beginners at SMA Al-Islam, these aspects are hard to balance because they need to process complex cognitive skills and face speaking anxiety, which causes hesitation and reduces speech productivity. Recent empirical studies in technology-mediated EFL classrooms confirm that regular mobile-assisted practice drastically enhances learners' oral fluency and constructs a crucial psychological safety net that significantly reduces speaking anxiety (Güçlü, 2025; Handikaningtyas et al., 2025).

The utilization of the Technology-Enhanced Think Pair Share (TPS) model features acts as a pedagogical support to help learners overcome these specific

problems. In my opinion, the integration of these digital features should not be viewed as a mere supplementary tool, but rather as core instructional scaffolding that actively mediates the learners' cognitive processing. In the 'Think' stage, the teacher plays authentic audio models through Bluetooth speakers and provides structured handouts for students containing sentence scaffolding and vocabulary lists. This stage is theoretically anchored in Vygotsky's Zone of Proximal Development (1978) and Krashen's (1985) Input Hypothesis, which argues that language acquisition occurs when students are exposed to 'comprehensible input' slightly above their current level ($i + 1$). In my assessment, these instructional handouts directly operationalize Krashen's Input Hypothesis by transforming abstract verbal demands into highly structured, digestible linguistic cues that align with the learners' immediate readiness. Simultaneously, the Bluetooth speaker broadcasting acts as a vital auditory bridge; it allows students to visually map complex sentence structures while absorbing standard phonological models like intonation and word stress, thereby managing early working memory load.

Furthermore, this multi-layered preparation helps learners overcome linguistic formulation complexity, allowing them to pay greater attention to accuracy and vocabulary usage. This cognitive balancing act is directly governed by Peter Skehan (1998) through his prominent Trade-off Hypothesis. Skehan explicitly theorizes that language learners operate under a limited attentional capacity, which introduces a fundamental formulaic tension among three competing linguistic dimensions: fluency, accuracy, and complexity. Under this formula, when a student forces their limited attention toward real-time grammar, their fluency naturally suffers. To provide a practical remedy to this tension, the handouts and pre-task planning time grant students the necessary processing buffer to organize their linguistic resources before live interaction begins.

In the Pair stage, the students participate in peer rehearsal activities using mobile-assisted language learning tools, specifically voice recording applications. Under the MALL concept, mobile devices are used as tools to enable flexible and personalized language learning (Kukulska-Hulme, 2009). Through the recording

and playing of the student's own speech, the student participates in self-monitoring activities that enable the implementation of Schmidt's Noticing Hypothesis (1990), wherein the student becomes aware of the discrepancy between the actual performance and the target performance. This process directly impacts the student's improvement in speaking accuracy and controlled fluency.

Moreover, the private rehearsal using voice recording technology and sentence scaffolding aids the student's development of Willingness to Communicate by providing a secure environment to correct errors before the actual public speaking performance (MacIntyre et al., 1998). In the Share stage, the student performs the speaking task as a form of task-based speaking production. The progressive development from scaffolded input, private rehearsal, to public speaking aligns with the principles of task-based language instruction and promotes the student's confident and fluent speaking performance.

The fact that this framework makes use of offline mobile technology, Bluetooth speakers, and printed handouts ensures that this operational model is highly feasible in the context of the school setting, especially where internet connectivity is unstable or limited. By utilizing readily available offline digital affordances, the teaching model bypasses structural infrastructure barriers commonly found in developing classrooms. Consequently, this resource-efficient setup ensures that the pedagogical intervention remains practical, sustainable, and easily replicable for teachers facing similar technological constraints.

Ultimately, this conceptual framework explicitly argues that by systematically integrating digital technology within each cooperative stage of the Think-Pair-Share framework, a highly effective pedagogical pathway is established. This technology-enhanced cooperative design serves as a comprehensive instructional solution to simultaneously mitigate cognitive overload and lower affective barriers. Through this structured synergy, the integrative model successfully drives the comprehensive development of EFL students' speaking micro-skills, specifically enhancing their oral fluency, grammatical accuracy, and vocabulary acquisition.

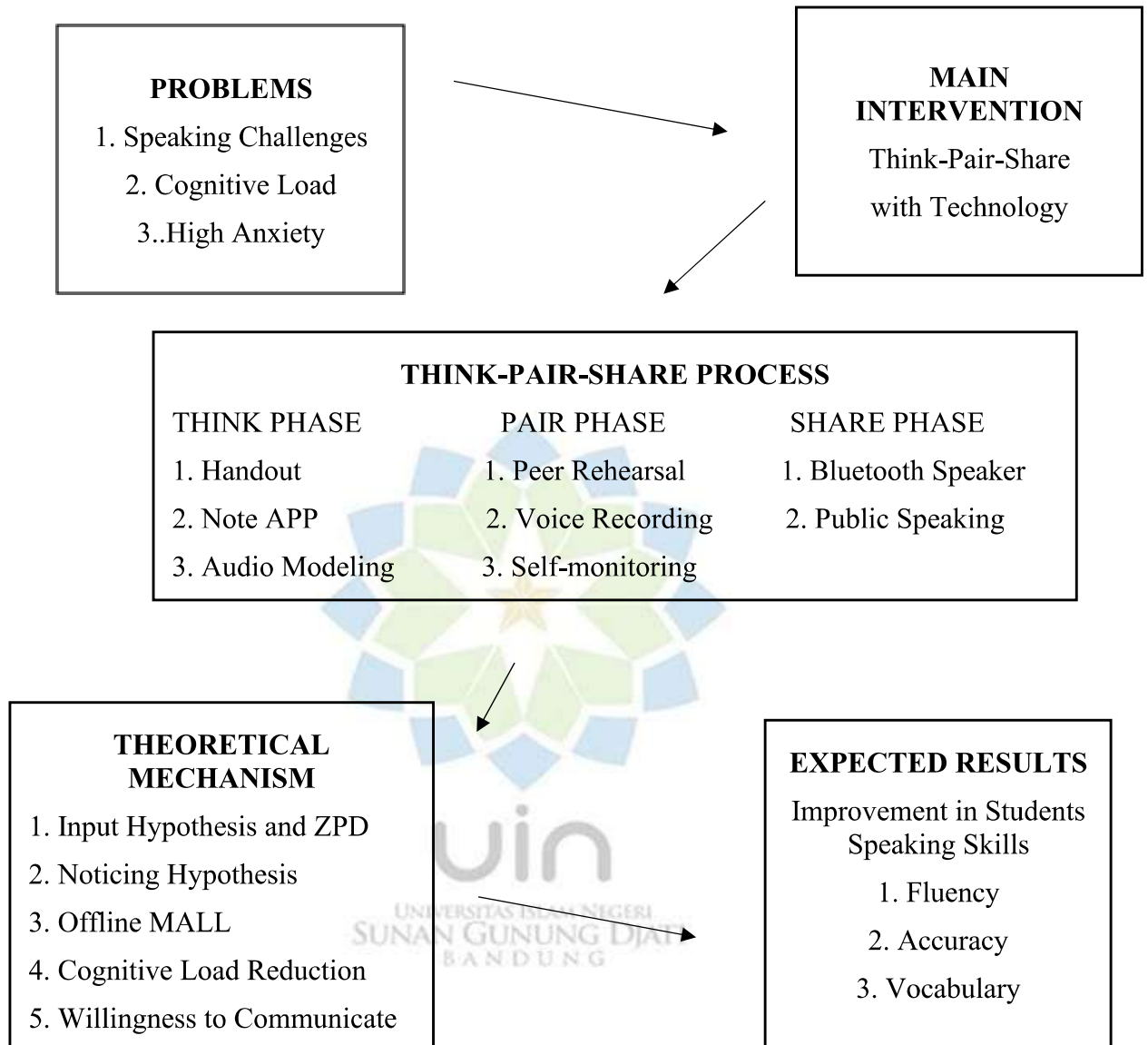


Figure 1. 1 Conceptual Framework.

g. Hypothesis

H_0 (Null Hypothesis): There is no significant effect of the Technology-Enhanced TPS strategy on students' speaking skills.

H_a (Alternative Hypothesis): There is a significant effect of the Technology-Enhanced TPS strategy on students' speaking skills.

h. Previous Studies

Previous research has already confirmed that TPS can have a positive impact on EFL learners' speaking competence. For instance, a study by Latifah (2022) in the eleventh grade of SMAN 2 Palopo proved that TPS can improve the speaking skills of high school students in Palopo City, especially regarding accuracy, fluency, and comprehensibility. Another study by Al Karim et al (2021) confirmed that TPS can improve EFL learners' speaking skills as well as their active speaking behavior. This study involved eleventh-grade students from SMAN 4 Jember City by applying Zoom Meeting and Google Classroom as media for the TPS activity. Another study by Abubakar (2023) confirmed that TPS can improve EFL learners' speaking skills, especially regarding pronunciation, grammar, vocabulary, fluency, and word order for university students majoring in English Education at STKIP Kie Raha Ternate.

Apart from the improvement in performance, some studies also explored the perception of the students towards TPS. For example, a study by Ma'arif and Ashlihah (2017) that was conducted in an English education program semester 2, explored the attitude of the students towards TPS in an EFL speaking class and found that TPS helped in developing a positive classroom environment, thus reducing the fear factor for the students. Moreover, Lascano (2021) found that the incorporation of TPS and the Flipgrid platform helped in enhancing the motivation level and a collaborative learning environment for the students at the university level in Ecuador.

However, most of the existing TPS studies were conducted in conventional or minimally technology-enhanced contexts. Although studies conducted by Latifah (2022) and Al Karim et al (2021) used technology, such as WhatsApp and Zoom, mainly for the purpose of communication, technology was not used in each phase of the TPS to facilitate the cognitive and affective aspects of the process. Besides, while the studies done in the above references improved speaking in general, the micro-skills of speaking, that is, fluency, accuracy, and vocabulary, were not the specific concern in the Indonesian context of senior high schools. Besides, while the study conducted by Abubakar (2023) was conducted at the university level, it leaves a gap regarding the applicability of technology-enhanced TPS for high school students who may face greater cognitive and affective challenges in speaking.

Thus, while prior research confirms the efficacy of TPS for speaking development, there remains a scarcity of quantitative studies examining the impact of a structured, technology-enhanced TPS model, one that incorporates note-taking, voice recording, and playback tools on specific speaking components (fluency, accuracy, vocabulary) in Indonesian high school EFL contexts. This study, therefore, aims to address this gap by investigating the effect of a technology-enhanced Think-Pair-Share strategy on students' speaking skills, with a focused analysis on fluency, accuracy, and vocabulary development.