From Slides to Speech: A Mobile Learning Concept for ESL Speaking and Collaboration in Malaysian Diploma-Level Classrooms

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ABSTRACT

Slide Bridge ESL is proposed as a classroom-oriented design that extends slide-based teaching for Malaysian diploma level learners of English. The core problem concerns platform lock in and variable connectivity that constrain sustained speaking practice, while common slide interaction tools generate momentary engagement without durable gains in oral communication. The research design follows a design science approach comprising a synthesis of mobile and digital learning literature, a requirements analysis with Malaysian diploma level ESL educators, and a concept specification. The research output comprises a Phase one blueprint featuring a web first presenter and student clients, speaking focused activities such as timed discussion rounds, role play scenarios, short presentation drills and quick checks, persistent group workspaces that carry work across sessions, lightweight classroom safe analytics capturing participation counts, simple talk time indicators and contribution balance, and an offline tolerant cache then sync or export flow for low bandwidth classrooms. Anticipated implications include increased authentic speaking opportunities, fairer teamwork, and usable evidence of communicative progress under mixed device conditions. Recommendations include small pilot implementation, iterative usability refinement based on educator feedback, and alignment with program outcomes to support later evaluation and scaling.

Keywords: Digital Learning; Mobile Learning; ESL Oral Communication; Classroom Interactivity

INTRODUCTION

Speaking in English is one of the biggest challenges faced by many Malaysian diploma students. A study by Aziz and Kashinathan (2021) found that learners often feel nervous about speaking in front of others and harbour anxiety about making mistakes, which reduces their willingness to engage in oral communication. Even when speaking tasks are included, many students still report frequent hesitation, pauses, and difficulties producing fluent utterances because of limited vocabulary or grammar knowledge (Kho & Ting, 2024).

Outside the classroom, speaking receives even less attention. Ishak (2025) found that post-secondary ESL students in Malaysia tended to practise listening far more than speaking during their own time, suggesting that learners have few opportunities to build confidence and fluency beyond the classroom setting. While digital tools and blended learning environments have been introduced to create more interaction, students continue to cite unstable internet connections and low bandwidth as barriers that limit their ability to participate in oral tasks. For instance, in a study on online speaking activities, Malaysian undergraduates identified “connection speed” as one of the main issues that disrupted their learning (Saputra et al., 2023).

This concept paper proposes SlideBridge ESL as a response to these challenges. The idea is to reimagine slide-based teaching as a mobile-friendly design that makes space for more authentic, fair, and continuous speaking practice. By combining features such as timed discussions, role plays, short presentations, and persistent group workspaces with simple analytics and offline support, the design aims to give learners more consistent chances to speak and to help teachers observe their development more clearly. In doing so, the design aligns with

Malaysia's English Language Education Reform goals to strengthen communicative proficiency through classroom innovation (Ministry of Education Malaysia, 2015).

The aim of this study is to conceptualise a mobile learning design that extends slide-based teaching into sustained and collaborative speaking practice for Malaysian diploma-level ESL learners.

LITERATURE REVIEW

Mobile-Assisted Language Learning (MALL) and ESL Speaking in Higher Education

A growing body of work indicates that well-designed mobile-assisted language learning (MALL) can improve oral performance in tertiary settings. A recent meta-analysis of 57 studies reported positive, statistically significant effects of MALL on learners' speaking development, with design features such as structured speaking prompts, time-bounded tasks, and feedback mechanisms associated with stronger gains (Li, 2024). Collaborative MALL reviews further show rapid post-2019 growth in studies using smartphones and social-messaging tools to scaffold interaction, although many interventions are short in duration and small in scale, highlighting a need for longer trials in authentic classroom contexts (Guo et al, 2024). These strands collectively suggest that mobile tools can extend opportunities for oral production beyond whole-class teacher talk, provided activities are intentionally sequenced for interactional practice. Within Malaysia, similar emphases on communicative practice inform policy and curriculum discussions, but applications at diploma level remain under-examined, underscoring the need for a locally responsive design such as SlideBridge (Ministry of Education Malaysia, 2015).

Slide-Extended Interactivity and Collaborative Tools: Affordances and Limitations

Classroom response systems and interactive presentation platforms are widely adopted to activate prior knowledge, surface ideas, and provide rapid formative checks. Evidence syntheses and large-sample studies consistently associate such tools with increased engagement, participation, and small-to-moderate improvements in test performance and knowledge retention (Hunsu et al., 2016; Wang & Tahir, 2020; Shahba et al., 2023). Yet, the majority of outcome measures in this literature remain cognitive (scores, completion) or affective (motivation) rather than direct indicators of oral proficiency or fluency. Case studies of Mentimeter use similarly emphasize inclusion, participation, and real-time feedback as primary benefits, while noting practical constrains (licensing, content portability, connectivity) that can limit sustained, talk-heavy activities (Pichardo et al., 2021). For a slide-centred classroom to promote continuous speaking practice, interactive check-ins may therefore need to be complemented by structured speaking tasks, such as timed-rounds or role-plays, and mechanisms that persist group work across sessions. In Malaysian higher education specifically, comparative designs that integrate slides with extended speaking practice are limited, which clarifies SlideBridge's contribution beyond existing quiz-oriented tools.

Connectivity, Device Diversity, and the Equity Imperative in Malaysia

In the Malaysian higher-education context, uneven access to stable connections and capable devices continues to constrain participation in synchronous oral tasks, particularly for students from lower-income households. A national study of lower-income undergraduates found significant digital-use disparities linked to perceived norms and access factors, underscoring a persistent "usage" divide beyond basic access (Devisakti et al., 2023). Qualitative work with Malaysian undergraduates similarly reports connection speed and instability as recurrent barriers during online speaking activities (Saputra et al., 2023). These findings support offline-tolerant, cache-then-sync approaches that decouple classroom speaking practice from real-time bandwidth and device variation. They also highlight an equity imperative for solutions that function reliably across a range of devices without penalising students for connectivity constraints.

Emerging Offline-First Practices for Mixed-Bandwidth Classrooms

Offline-first platforms illustrate practical patterns for content caching, local synchronization, and later export that preserve interactivity in low-bandwidth environments. Kolibri, for instance, is designed to run locally

(device or LAN) with later sync to a coach server or data portal, enabling activity tracking and analytics without continuous internet connectivity, an approach increasingly adopted in institutional partnerships serving remote learners (Learning Equality, 2021; BCcampus-Learning Equality, 2024). Adapting these patterns to slide-based ESL classes would allow speaking tasks and group work to continue reliably on heterogeneous devices, with data synchronized when connectivity permits. By leveraging these patterns, SlideBridge aims to keep oral interaction central even under patchy connectivity, thereby supporting more equitable participation.

DISCUSSION

Problem Focus and Design Stance

Many diploma-level ESL classes in Malaysia remain slide-centred. Polls and quiz add-ons boost attention and quick checking, but they rarely create the extended, back-and-forth talk that actually builds speaking fluency. A recent review of Kahoot! shows consistently positive effects on engagement and test performance, yet its measures are mostly cognitive/affective rather than spoken-production outcomes, suggesting the need for speaking-first sequences alongside slides (Wang & Tahir, 2020). At the same time, device and bandwidth disparities in Malaysian higher education continue to constrain live, talk-heavy activities. Any classroom solution must therefore tolerate patchy connectivity and mixed devices. A growing body of MALL research indicates that when mobile designs structure frequent, purposeful speaking, learners' oral skills can improve, which justifies a classroom-first MALL concept aimed at sustained talk (Li, 2024; Guo et al., 2024). In contrast to widely used tools such as Mentimeter or Kahoot!, which centre quick polls and quizzes, SlideBridge is explicitly oriented to extended oral interaction while remaining usable under variable connectivity. The stance is to extend slide-based lessons rather than replacing them, embedding more speaking opportunities within a familiar teaching workflow.

Phase One Blueprint

Web-first presenter and student clients

All sessions run in the browser on modest devices, and core artefacts, such as prompts, notes, short audio responses, and participation logs, are saved locally first and then synchronised or exported when connectivity is available. This offline-first pattern mirrors established approaches in low-bandwidth learning platforms and allows lessons to continue even when the network drops. To support institutional adoption, optional integration with existing Learning Management Systems (LMS) can be explored so that access, enrolment, and basic reporting align with established workflows.

Speaking-focused activity sequences

Each lesson centres on structured oral work through timed discussion rounds, role-play scenarios, and micro-presentation drills, with one-question quick checks inserted between speaking segments to surface positions without displacing talk. This design targets the primary mechanism for growth, more learners speaking, more often, in fair turns, and aligns with evidence that mobile-assisted designs yield stronger speaking gains when tasks are purposeful and sustained (Li, 2024). Relative to quiz-oriented slide add-ons, these sequences keep speaking as the primary activity, not clicking.

Persistent group workspaces

Teams retain their notes, scripts, rotating roles, and feedback across weeks so that collaboration does not reset each class meeting. This continuity reflects trends in collaborative mobile-assisted language learning, which increasingly scaffold ongoing interaction via mobile and social affordances (Guo et al., 2024). At the same time, continuity across sessions can surface challenges in group dynamics, including uneven participation or dominance by particular members. To mitigate these risks, the design anticipates role-rotation prompts and lightweight participation views to support equitable turn-taking. Since continuity can add to teacher workload,

the blueprint also assumes simple management features, such as reusable team templates and quick progress snapshots, to reduce overhead while preserving pedagogical benefits.

Classroom-safe analytics

The interface provides participation counts, simple talk-time indicators, and within-team contribution balance as light-touch cues intended to nudge fairer turn-taking without heavy surveillance. Experimental evidence indicates that feedback on talk ratios can increase student talk, supporting this minimal analytics approach (Demszky et al., 2024). These indicators are scoped to classroom use, primarily visible to instructors or within teams, to avoid public shaming while enabling timely, low-stakes adjustments to facilitation. By focusing on coarse patterns rather than high-granularity tracking, the analytics are designed to inform teaching without creating privacy or workload burdens.

The blueprint answers three constrains surfaced in the literature. First, speaking requires structured, repeated turns, not just momentary slide interactivity (Wang & Tahir, 2020). Second, mobile-supported routines can move oral performance when they are task-rich and sustained (Li, 2024). Third, connectivity/device gaps are a practical barrier in Malaysia, so cache-then-sync is not optional but essential for equitable participation (Devisakti et al., 2023).

If feasible, the design should yield more frequent and more evenly distributed talk, proximal mechanisms linked to speaking development in MALL contexts, while giving teachers usable, classroom-safe evidence of progress. It is also important to acknowledge that the proposal remains untested and assumes a degree of instructor adoption and student engagement that will need to be established empirically in pilot implementations.

CONCLUSION

This concept paper set out to address a familiar classroom reality, slide-centred lessons that energise recall yet leave limited room for sustained speaking, compounded by platform lock-in and uneven connectivity in Malaysian diploma-level contexts. In response, SlideBridge ESL proposes a classroom-first, mobile-supported design that extends slide teaching into structured, collaborative oral work. The Phase One blueprint specifies a web-first presenter and student client, speaking-focused activity sequences, such as timed rounds, role-plays, micro-presentations with brief quick checks, persistent group workspaces, and classroom-safe analytics, including participation counts, simple talk-time indicators, and contribution balance, running on an offline-tolerant cache-then-sync or export flow. Taken together, these choices aim to create more authentic speaking opportunities, fairer teamwork, and usable evidence of communicative progress under mixed device and bandwidth conditions.

Future work will follow in small, iterative pilots to test feasibility at scale, refine usability from teacher feedback and align workflows with programme goals for long-term study and scaling. In these pilots, close collaboration with instructors will be central to ensuring that the design fits local practices and curricular outcomes, improving both relevance and sustainability. To strengthen evaluation, longitudinal studies will be planned to track speaking proficiency gains over time, and comparative trials with interactive slide tools, such as Mentimeter and Kahoot!, may be used to clarify SlideBridge's distinct contribution to oral skills development. Additionally, exploring integration with existing LMS platforms can reduce adoption friction by embedding access and basic reporting within established institutional systems. By grounding the design in day-to-day classroom constraints, SlideBridge ESL provides a feasible technique for enhancing oral communications without requiring an overhaul of existing slide-based practices. The forthcoming pilots will determine the practicality and impact of the concept under mixed device and bandwidth conditions in Malaysian diploma-level classrooms.

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