

Lecturers' Transformational Leadership, Technology Use, and Student Engagement in Blended EFL Learning: A Literature Review

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Abstract: *Blended learning is now widely used in Chinese higher education EFL courses, yet sustaining student engagement—especially online—remains difficult. This literature review synthesizes theory and evidence on how lecturers' transformational leadership and technology-integrated teaching influence student engagement in blended EFL learning, with student interaction as a key mediating mechanism. Guided by the Community of Inquiry framework, Transformational Leadership Theory, and the TPACK model, the review explains how leadership and purposeful technology use can enhance teaching presence and promote learner–lecturer, learner–learner, and learner–content interaction, thereby supporting behavioral, emotional, and cognitive engagement. While existing studies generally report positive links between transformational teaching, pedagogically aligned technology use, and student outcomes, integrated evidence in Guangzhou's private universities remains limited. The review highlights key gaps and suggests future directions for mechanism-focused, context-sensitive research.*

Keywords: Blended learning, Transformational leadership, Technology use, Student engagement, Interaction.

1. Introduction

Blended learning (BL), combining face-to-face instruction with structured online learning, is increasingly institutionalized in Chinese higher education as part of broader ICT-driven educational modernization [1]. In College English contexts, BL is expected to support flexible learning pathways, richer resources, and more personalized learning experiences. However, the effectiveness of BL is often constrained by uneven student engagement—particularly in online components where self-regulation demands increase and distractions are more prevalent [2]. Engagement is widely recognized as a central predictor of learning persistence and achievement, and is commonly conceptualized as behavioral, emotional, and cognitive investment in learning activities [3].

Within BL, lecturers remain critical in shaping students' learning experiences, not only through instructional design but also through relational, motivational, and facilitative roles. Two lecturer-related factors have attracted growing attention: transformational leadership in teaching and technology-integrated teaching practice. Transformational leadership emphasizes inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration [4], which are increasingly applied to classroom and higher-education teaching contexts [5]. Meanwhile, research on technology integration suggests that learning benefits depend on aligning technology with pedagogy and content rather than merely adding tools [6].

A growing body of research further indicates that interaction—among students and lecturers, among peers, and with learning content—constitutes a core process through which instructional practices influence engagement in BL [7], and remains particularly salient in EFL learning where meaningful language use and feedback are essential. Building on these strands, this review synthesizes literature to explain how lecturers' transformational leadership and technology use may influence student engagement directly and indirectly

through interaction, with a focus on the underexplored setting of private universities in Guangzhou.

2. Theoretical Foundations

2.1 Community of Inquiry (CoI)

The CoI framework conceptualizes meaningful learning in online and blended settings as emerging from the interplay of teaching presence, social presence, and cognitive presence [8]. Teaching presence concerns design, facilitation, and direction of learning, while social presence supports interpersonal connection and communication, and cognitive presence reflects inquiry-based meaning construction [8], [9]. Because BL spans both online and face-to-face spaces, CoI is frequently used to explain why interaction quality becomes pivotal: teaching presence can structure and stimulate interaction; social presence can sustain participation and belonging; and cognitive presence can deepen engagement through inquiry and integration [8]. In EFL BL settings, interaction is not only a social process but also a learning requirement, enabling practice, scaffolding, and feedback across modalities.

2.2 Transformational Leadership Theory

Transformational leadership, originally theorized in organizational contexts, describes leadership that elevates followers' motivation and performance beyond transactional exchange [4]. Bass operationalized transformational leadership into the "Four I's": idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration [4]. In higher education, transformational instructor leadership has been linked to student motivation, satisfaction, credibility perceptions, and learning outcomes [5]. Recent evidence also indicates that transformational teaching can enhance students' engagement and related outcomes through relational mechanisms such as trust [10]. These findings suggest that transformational

lecturer behaviors may strengthen learners' willingness to participate, reduce anxiety, and foster a supportive climate—conditions that plausibly increase interaction and engagement in BL environments.

2.3 TPACK

The TPACK model argues that effective technology integration arises from the dynamic intersection of content knowledge, pedagogical knowledge, and technological knowledge; thus, technology use is educationally valuable when it is aligned with pedagogy and content [6]. This perspective helps distinguish surface-level use (e.g., slides for delivery) from meaningful integration that reshapes learning tasks, feedback processes, collaboration, and learner agency. In BL, where online and face-to-face components must be coherently connected, TPACK provides a rationale for examining technology use as a structured teaching practice that can enable richer interaction and support engagement.

3. Core Constructs in the Literature

3.1 Student Engagement in Blended EFL Learning

Student engagement is most commonly conceptualized in three dimensions: behavioral (participation and effort), emotional (interest, belonging, and affect), and cognitive (strategic investment and deep processing) [3]. In BL, engagement becomes more complex because learners navigate multiple spaces and must self-regulate across asynchronous and synchronous activities. Empirical work on BL engagement emphasizes that online environments can both enable autonomy and create conditions for disengagement if structure, feedback, or interaction are insufficient [2]. In EFL, engagement additionally depends on opportunities to use language meaningfully and receive timely feedback.

3.2 Student Interaction

Moore's influential typology distinguishes learner–instructor, learner–learner, and learner–content interaction [7]. These forms remain foundational in BL research, and subsequent theorizing argues that the “right mix” of interactions depends on context, pedagogy, and learning goals [11]. In EFL, learner–instructor interaction supports scaffolding and feedback, learner–learner interaction supports communicative practice and collaborative meaning-making, and learner–content interaction supports exposure, rehearsal, and comprehension development. Importantly, interaction is conceptually distinct from engagement: interaction refers to observable exchanges; engagement refers to the learner's investment. Yet, interaction can function as the mechanism through which instructional practices translate into engagement outcomes.

3.3 Lecturer Technology Use in Blended Learning

Technology use in BL is increasingly conceptualized not as tool frequency but as pedagogical function and design logic. Recent work proposes classifications that differentiate technology used for delivering content, enriching learning experiences, and transforming pedagogy by enabling new

forms of learner agency and collaboration [12]. Such typologies align closely with TPACK's emphasis on purposeful integration. In Chinese higher education, policy pushes have accelerated adoption, but the literature repeatedly cautions that adoption does not guarantee engagement gains unless technology use supports interaction, feedback, and meaningful tasks [1], [6].

3.4 Lecturers' Transformational Leadership in Higher Education

A substantial literature supports transformational leadership's positive associations with motivation and performance in organizations [4]. In higher education teaching, a meta-analytic review reports that transformational instructor leadership is positively related to a range of student outcomes and calls for more mechanism-focused work [5]. Empirical studies also suggest that transformational teaching can increase engagement over time through relational mediators (e.g., trust) rather than solely through competence beliefs [10]. These findings imply that leadership behaviors may be especially relevant in BL contexts where students may experience relational distance and require motivational support to engage consistently across modalities.

4. Interaction as the Mediating Mechanism

4.1 Why Interaction Mediates Leadership → Engagement

Transformational lecturers are expected to increase student interaction by (a) inspiring participation through vision and encouragement (inspirational motivation), (b) creating psychologically supportive relationships (individualized consideration), (c) modeling commitment and credibility (idealized influence), and (d) stimulating inquiry and discussion (intellectual stimulation) [4], [10]. These leadership behaviors plausibly strengthen learner–instructor interaction (more approachability, feedback seeking), learner–learner interaction (encouraged collaboration), and learner–content interaction (more cognitive challenge and meaning-making tasks). When interaction increases in both frequency and quality, students are more likely to show behavioral participation, emotional connection, and cognitive investment—core features of engagement [3], [8].

4.2 Why Interaction Mediates Technology Use → Engagement

From a TPACK lens, technology-integrated teaching should enhance engagement when it produces clearer structure, richer resources, and stronger communication/feedback loops [6]. Functionally, technology that supports discussion, peer collaboration, iterative feedback, and authentic tasks can directly intensify learner–learner and learner–instructor interaction. Technology can also increase learner–content interaction by enabling repeated access, multimodal input, adaptive practice, and interactive learning objects. However, the literature also indicates that online spaces can lead to distraction and disengagement when learning design is weak or when interaction is insufficiently supported [2]. Thus, interaction is a theoretically coherent and practically observable mechanism linking technology use to engagement outcomes.

4.3 CoI as the “Bridge” Framework

The CoI model helps integrate leadership and technology use by positioning both as drivers of teaching presence: leadership behaviors shape facilitation and relational climate, while technology integration shapes design and communication infrastructure [8]. Interaction corresponds to social presence processes and can enable cognitive presence development, offering a pathway to engagement as a learning outcome. This integrative framing is especially useful for blended EFL classrooms, where interaction is simultaneously a pedagogical method, a social process, and a language-learning necessity.

5. Contextual Focus: Private Universities in Guangzhou

Guangzhou’s position within the Greater Bay Area makes English proficiency salient for graduate employability and international orientation. Private universities in Guangzhou often enroll diverse student populations with varied language proficiency and learning habits, which may amplify engagement challenges in BL—especially online components requiring autonomy. Yet, the current literature base is still dominated by studies in general higher education or non-Chinese settings, and many China-focused studies emphasize adoption trends rather than mechanism-based explanations of engagement. Given policy-driven BL adoption [1], the private-university context calls for closer examination of how lecturer practices translate into interaction and engagement, and whether the same mechanisms found in other contexts generalize to Guangzhou’s private higher education ecosystem.

6. Research Gaps and Directions

Three gaps emerge from the reviewed literature:

Integrated modeling remains limited. Many studies examine leadership or technology use separately, but fewer test an integrated model that includes both predictors with interaction as a mediator in BL EFL contexts [5], [12].

Mechanism quality is under-specified. Interaction is often measured as frequency or general perception; fewer studies differentiate interaction quality (e.g., depth of dialogue, feedback usefulness, collaborative knowledge construction) across the three interaction types [7], [11].

Context-sensitive evidence in Chinese private universities is scarce. Policy documents encourage ICT and BL [1], yet evidence on how lecturer leadership and technology integration jointly drive engagement through interaction in private universities—particularly in Guangzhou—remains insufficiently developed.

Future research should therefore (a) adopt theory-driven structural models linking leadership and technology use to engagement through interaction, (b) operationalize interaction with multi-type and quality-sensitive indicators, and (c) validate measures and mechanisms in Guangzhou private-university BL EFL settings.

7. Conclusion

This review synthesizes theoretical and empirical literature to explain why lecturers’ transformational leadership and technology-integrated teaching practices are likely to influence student engagement in blended EFL learning, and why student interaction is a compelling mediating mechanism. CoI provides the overarching learning-process framework, TLT explains motivational and relational drivers of participation, and TPACK clarifies the pedagogical nature of effective technology use. Across these lenses, interaction emerges as the central pathway translating lecturer practices into engagement outcomes. However, integrated and context-specific evidence—particularly within Guangzhou private universities—remains limited, justifying further empirical investigation into the proposed mediated relationships.

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