

RECONCEPTUALIZING CLASSROOM ECOLOGY: SPATIAL SEATING DYNAMICS AND STUDENT ENGAGEMENT IN THE EFL TEACHING OF INDONESIAN SENIOR HIGH SCHOOL

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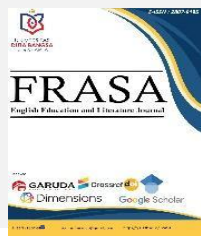
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Abstract

Student engagement is globally known as one of the crucial indicators of effective language learning, especially in English as a Foreign Language (EFL) classrooms, in which interaction and communication are the core pedagogical processes. While many studies have thoroughly examined teaching strategies for enhancing engagement, limited focus has been given to the role of classroom spatial organization in developing student engagement. Particularly, the pedagogical implications of seating arrangements are underexplored within the Indonesian high school EFL context. This conceptual paper develops a theoretical framework which links interactive seating arrangements and student engagement in Indonesian high school EFL classrooms. Drawing on Sociocultural and Ecological Theories, the paper utilizes the methodology of conceptual synthesis and integrative literature review to study the influence of classroom spaces on classroom engagement, collaborative learning, and participatory teaching and learning activities. The findings show that interactive seating arrangements should be seen not merely as physical classroom layouts but as pedagogical and ecological structures facilitating classroom interaction, collaboration, communication, and active participation. The review also recognizes contextual and theoretical gaps in existing research, especially the limited attention to classroom ecology in high school EFL education in the Indonesian context. According to the findings, the paper proposes a framework providing the reconceptualization of seating arrangements as a crucial component of language learning ecology. Furthermore, the paper contributes to the growing literature on student engagement by incorporating ecological perspectives into Indonesian EFL education and offers practical implications for educators and school stakeholders to design more interactive and student-centred language learning.



Keywords: *Seating Arrangements, Student Engagement, English Language Learning, Classroom Interaction, Conceptual Framework*

INTRODUCTION

Student engagement is widely considered a key indicator of effective learning and meaningful participation in classroom activities. In an English as a Foreign Language (EFL) classroom, engagement is crucial since language learning relies on students' active involvement in communication, interaction, and collaboration. Previous studies have shown that there is a strong relationship between student engagement and academic performance and learning outcomes, especially when students actively engage in classroom teaching rather than passively receive teachers' instruction (Lu & Cutumisu, 2022; Márquez et al., 2023). As a result, English teachers increasingly adopt interactive teaching methods that encourage students to communicate, negotiate meaning, and collaborate with peers.

However, effective interactive pedagogy is influenced not only by teaching methods but also by the physical and social educational settings. Among these factors, classroom seating arrangements become a significant yet often overlooked pedagogical element as they enable communication, teacher mobility, and peer interaction. Traditional row seating is closely relevant to teacher-centred instruction and limited opportunities for student interaction (Harvey & Kenyon, 2013), whereas U-shaped and group-based seating arrangements foster collaboration, participation, and communication among learners (Bergtold et al., 2019; Rands & Gansemer-Topf, 2017). Such interactive arrangements are strongly relevant in EFL classrooms, in which language acquisition relies heavily on communicative interaction.

Although previous studies have reported the benefits of interactive seating arrangements, they have primarily examined observable results, such as participation and student interaction, without providing sufficient explanation of the theoretical mechanisms through which classroom space influences student participation. For example (Aminah et al., 2021; Gao et al., 2022; Nurfaidah et al., 2021; Petagra, 2024) found that interactive seating arrangements promote an increase in communication, collaboration, and participation in learning activities. Nonetheless, these studies have viewed seating arrangements as technical classroom management strategies instead of ecological and sociocultural structures that produce interaction. Consequently, the relationship between classroom space, pedagogical practice, and student engagement remains conceptually fragmented, while theoretical explanation is limited, especially in the EFL classroom of the Indonesian senior high school context.

To address these theoretical and contextual gaps, this paper proposes a framework that reconceptualises classroom seating arrangements as ecological and pedagogical structures that facilitate interaction and collaborative learning. Drawing on Sociocultural Theory (Vygotsky, 1978) and Ecological System Theory (Bronfenbrenner, 1979), the paper synthesises international and Indonesian literature to explain how classroom arrangements influence classroom interaction, collaboration, and engagement in the Indonesian senior high school EFL context. By integrating these theories, the proposed framework contributes to the contemporary literature on classroom ecology and pedagogical space while offering practical implications for teachers, school leaders, and policymakers.

REVIEW OF LITERATURE

Classroom Ecology, Spatial Pedagogy, and Student Engagement

Student engagement is understood as a key element of successful learning, especially in an English as a Foreign Language (EFL) classroom, in which language acquisition relies on interaction, participation, and collaboration. Although student-centred and communicative teaching methods foster active learning, engagement is also shaped by the broader classroom ecology where learning happens. Recent studies in classroom ecology and spatial pedagogy suggest that learning environments are socially and pedagogically meaningful spaces that influence participation, interaction, and knowledge development rather than serving only as physical settings (Byers et al., 2018). Classroom layout affects visibility, communication, and collaboration, therefore shaping students' cognitive, social, and emotional engagement.

Traditional row seating is closely relevant to teacher-centred instruction and classroom control but may minimize student interaction and opportunities for collaboration (Harvey & Kenyon, 2013). Conversely, U-shaped and group-based seating arrangements promote greater participation, communication, and peer collaboration by enhancing eye contact, teacher mobility, and interaction (Bergtold et al., 2019; Rands & Gansemer-Topf, 2017). Nonetheless, the relationship between seating arrangements and student engagement is context-dependent. Instead of functioning as universally effective teaching strategies, seating arrangements should be understood as ecological structures whose influence relies on teacher competence, classroom culture, and peer interaction.

Interactive Seating Arrangements as Pedagogical Structures

U-Shaped Seating and Interactional Visibility

Among classroom seating arrangements, the U-shaped seating layout has received considerable attention due to its potential to foster classroom interaction and student participation. An early study by (Rosenfield et al., 1985) found that U-shaped layouts increase eye contact and communication between students, while more recent studies claimed that there are improvements in verbal participation, collaboration, and visibility between classroom members (Gao et al., 2022; Petagra, 2024). The pedagogical value of this arrangement lies in its ability to facilitate reciprocal communication and dialogic learning instead of its physical structure alone. Similarly, (Pennington et al., 2022) and (Yang et al., 2022) pointed out that U-shaped seating balances teacher authority with collaborative learning, therefore supporting student engagement. Nevertheless, existing research often assumes a direct connection between seating arrangements and classroom participation without sufficiently explaining the sociocultural mechanisms involved. Furthermore, the effectiveness of U-shaped layouts depends on contextual factors, including class size, and teachers' ability to encourage meaningful interaction.

Group Seating and Collaborative Learning

Group seating arrangements are commonly associated with student collaboration and classroom interaction, making them suitable for cooperative learning and discussion-based teaching approaches (Maranca, 2024). Nehyba et al. (2023) found that flexible group seating positively influences student motivation and engagement, while Hilal (2014) claimed that there

are higher levels of peer collaboration than in traditional row seating. In EFL classrooms, group-based seating arrangements also foster communicative learning by enabling peer interaction and meaning negotiation between teachers and students (Astuti et al., 2020; Jannah & Nurfaidah, 2021; Simmons et al., 2015; Williams et al., 2021). However, their pedagogical effectiveness is not universal. Group seating layouts may increase distractions, off-task behaviours, and unequal participation among students, especially when classrooms are poorly managed (Olges & Cohen, 2025; Yang et al., 2022). Therefore, group seating is not the only determinant of classroom effectiveness. It should be seen as a pedagogical structure whose effectiveness also relies on teacher facilitation, task design, and classroom management.

Contextual Variability in Classroom Seating and Engagement

One main limitation of existing research on seating arrangements is their tendency to generalize findings across educational contexts without considering other contextual variables. Many studies have made assumptions that seating layouts directly lead to student engagement without looking at the influence of broader ecological factors. Class size, for instance, influences the effectiveness of interactive seating arrangements because larger classrooms often limit teacher mobility, increase classroom noise, and reduce opportunities for communication. Similarly, classroom infrastructure, including rigid furniture and limited space, may hinder the implementation of flexible seating layouts. Furthermore, cultural and pedagogical traditions also affect classroom interaction. In many Asian contexts, including Indonesia, a teacher-centred approach and hierarchical relationships between teachers and students may discourage active participation despite the existing interactive seating arrangements. In addition, teachers' competence in classroom management plays a critical role in ensuring that spatial layouts foster student engagement (Gremmen et al., 2016). Therefore, seating arrangements should be viewed as ecological structures whose effectiveness also relies on classroom context, teachers' classroom management, and pedagogical practice rather than physical layouts alone.

Conceptual Limitations in Existing Research

Although previous studies have demonstrated the benefits of interactive seating arrangements, the literature remains theoretically fragmented. Many studies put emphasis on observable outcomes, such as participation, communication, and motivation, without explaining further how classroom spatial structures develop student engagement (Gremmen et al., 2016; Jones & Jones, 2021; Nisa et al., 2025). Furthermore, engagement has been conceptualized inconsistently, with some studies focusing on behavioural participation and others on collaboration, emotional involvement, and classroom inclusion. These studies have also rarely integrated physical space, sociocultural interaction, and pedagogical practices into a comprehensive conceptual framework, leaving the relationship between classroom arrangements and student engagement underdeveloped. Similar limitations also exist in Indonesian EFL research (Al-Kansa et al., 2023; Amalia et al., 2024; Nurfaidah et al., 2021), which remain mostly practice-oriented. Hence, this paper proposes a conceptual framework that explains how spatial arrangements function as ecological structures that facilitate sociocultural interaction and student engagement.

Theoretical Integration: Sociocultural and Ecological Perspectives

Sociocultural Interaction and Learning

Sociocultural Theory (Vygotsky, 1978) explains that learning happens through social interaction, dialogue, and collaboration, with cognitive development supported by more capable peers within the Zone of Proximal Development (ZPD). In EFL classrooms, interactive seating arrangements may facilitate these processes by fostering peer accessibility and communication between classroom members. However, the theory limitedly explains how physical classroom environments enable or hinder these interactional opportunities, highlighting the need for an ecological perspective.

Ecological Classroom Structures

Ecological Systems Theory (Bronfenbrenner, 1979) explains that learning occurs within interconnected ecological systems, with the classroom serving as a microsystem where interaction happens. This view complements Sociocultural Theory by further explaining how classroom spatial arrangements influence students' visibility, movement, and participation. Accordingly, interactive seating arrangements play their roles as ecological environments that foster interaction between classroom members (Gremmen et al., 2016; Rands & Gansemer-Topf, 2017). However, ecological theory alone cannot provide a comprehensive explanation of how teacher competence and classroom management influence student engagement, supporting the need for an integrated theoretical framework.

Integrated Sociocultural-Ecological Framework

This paper proposes an integrated conceptual framework that explains student engagement as the output of interaction between sociocultural processes and ecological classroom structures. Instead of directly determining engagement, interactive seating arrangements shape conditions that encourage teacher-student visibility, accessibility, mobility, and collaboration. Accordingly, seating arrangements are conceptualized as ecological-pedagogical facilitators of interaction. The framework also considers that the effectiveness of seating arrangements depends on contextual factors, such as class size, classroom infrastructure, and teachers' competence in classroom management.

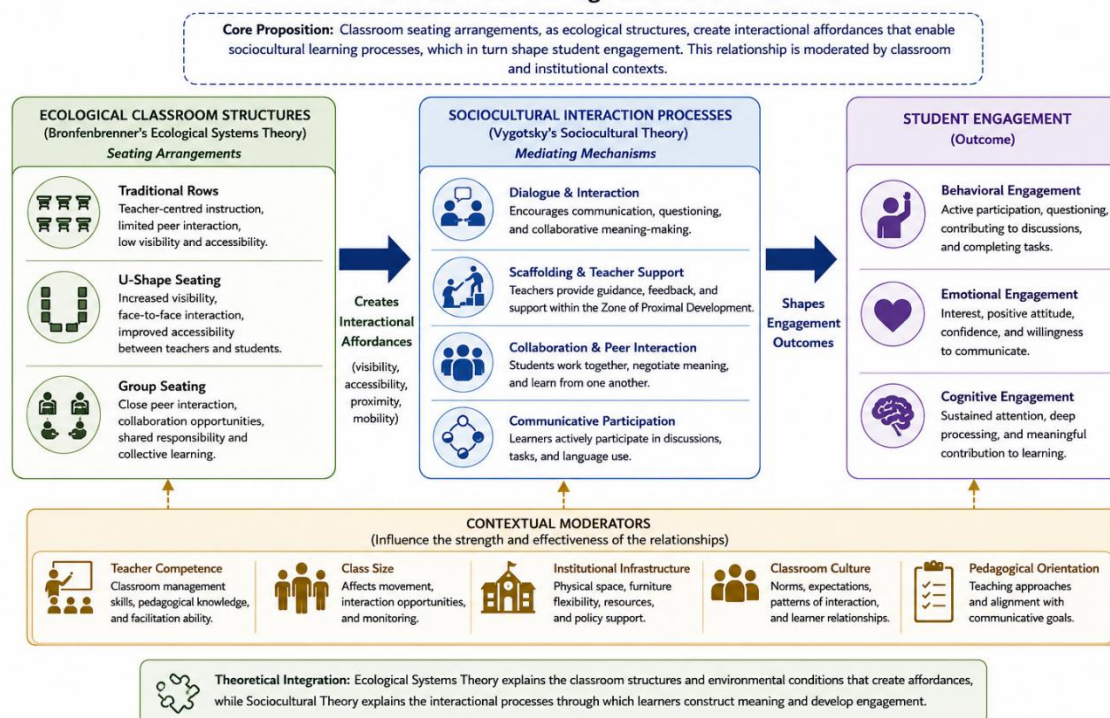
Conceptual Propositions

The proposed framework suggests that interactive seating arrangements enhance student engagement by creating ecological conditions that enable visibility, peer accessibility, and collaboration. Unlike traditional row seating, U-shaped and group-based layouts foster interaction and participation among classroom members. Accordingly, classroom space is seen as a pedagogical structure that facilitates communicative engagement rather than merely a physical setting.

Furthermore, the framework proposes that the relationship between seating arrangements and student engagement is not direct. It is, instead, mediated through sociocultural interaction processes occurring within the classroom contexts. Drawing on the Sociocultural Theory (Vygotsky, 1978), engagement develops through dialogue, scaffolding, and collaboration between teachers and students. Interactive seating arrangements do not lead to student engagement in a straightforward way; rather, they create conditions that mediate social interaction essential for the student learning. Hence, this paper argues that the

influence of seating layouts on engagement is mediated by sociocultural processes, such as communication, collaboration, and dialogue between classroom members.

Conceptual Framework: How Seating Arrangements Influence Student Engagement in Indonesian Senior High School EFL Classrooms



Eventually, the framework further recommends that the effectiveness of interactive seating arrangements is context-dependent. It means that there are accompanying factors, such as teacher competence, class size, and classroom infrastructure, that may either facilitate or hinder the implementation of interactive teaching practices. On the one hand, interactive seating arrangements may effectively promote participation and collaboration. On the other hand, insufficient classroom management, limited teacher competence in classroom management, and poor classroom infrastructure can negatively impact this effectiveness. Therefore, this paper proposes that the relationship between the classroom arrangements and student engagement is moderated by contextual and pedagogical factors within education settings.

METHOD

Research Design

This conceptual paper employed an integrative literature review and conceptual synthesis to build a theoretical framework which explains the connection between classroom seating arrangements and student engagement in the EFL classes of Indonesian senior high schools. The PRISMA 2020 statement (Page et al., 2021) was used to guide the literature identification and screening processes to enhance methodological transparency. The peer-reviewed studies published between 2011 and 2026 were retrieved using keywords, such as seating arrangements, student engagement, classroom ecology, spatial pedagogy, and EFL from academic databases. Beside these peer reviewed articles published between 2011 and

2026, there were also some theoretical works (e.g., (Bronfenbrenner, 1979; Vygotsky, 1978) included in the search due to their foundational relevance to the conceptual framework.

Table 1. The characteristics of Reviewed Literature

No	Characteristics	Category	Numbers
1	Total Literature Reviewed	Unique Sources	38
2	Publication Type	Peer reviewed Journal Articles	30
		Books	4
		Thesis	2
		arXiv Preprints	2
3	Geographical Context	International	25
		Indonesian	13
4	Research Orientation	Empirical	30
		Conceptual/ Theoretical	8

In table 1, the conceptual synthesis was based on 38 unique sources which consist of peer-reviewed journal articles (30). Then, it is complemented by books (4), thesis (2), and preprints (2). The reviewed literature also consists of 25 international and 13 Indonesian published articles. It is also according to 30 empirical and 8 conceptual sources, thereby, providing a comprehensive basis for the construction of proposed conceptual framework.

Table 2. The Themes of the Reviewed Literature

No	Primary Theme	Representative Focus of the Literature	Number of Studies
1	Seating Arrangements	Effects of Seating arrangements on learning, interaction, and participation	14
2	Student Engagement	Behavioural, emotional, cognitive engagement in classroom learning	7
3	Classroom Ecology	Influence of physical and social learning environments on classroom interaction	5
4	Spatial Pedagogy	Classroom space as a pedagogical resource supporting learning processes	4
5	Sociocultural Learning	Interaction, collaboration, and scaffolding in learning activities	4
6	Classroom Management	Teacher strategies for organizing classroom learning	4
	Total		38

After screening for relevance, publication quality, and contextual suitability, the selected literature was analysed using inductive thematic analysis (Braun & Clarke, 2006) to identify recurring concepts related to seating arrangement, student engagement, classroom ecology, spatial pedagogy, sociocultural learning, and classroom management as shown in table 2. The themes were then interpreted through the lens of Sociocultural Theory (Vygotsky, 1978) and Ecological System Theory (Bronfenbrenner, 1979) to develop an integrated conceptual framework. Instead of summarizing previous findings descriptively, the study critically synthesises existing theoretical and empirical evidence to recognize conceptual gaps and propose classroom seating arrangements as ecological-pedagogical structures that provide students with media of interaction and engagement the EFL classrooms of Indonesian high schools.

FINDINGS

Conceptual Framework Construction

The proposed framework provides a conceptualization that classroom seating arrangements are ecological structures that influence student engagement through sociocultural interactions within the educational settings. Drawing upon Sociocultural Theory (Vygotsky, 1978) and Ecological System Theory (Bronfenbrenner, 1979), the framework states that student engagement is not a direct result of classroom arrangements alone but comes from the interactional opportunities created by classroom spatial organization, which includes visibility, accessibility, teacher mobility, and peer interaction.

Accordingly, the framework comprises three interconnected dimensions, such as *seating arrangements as ecological structures*, *classroom interaction as the mediating process*, and *student engagement as the educational result*. This conceptualization explains the mechanism through which classroom organizations shape sociocultural interaction and foster student engagement, instead of merely examining direct relationship between seating arrangements and classroom effectiveness. By integrating these theories, the framework offers a more comprehensive explanation of student engagement in the EFL classrooms of Indonesian high schools and contributes to the existing knowledge on classroom ecology, spatial pedagogy, and EFL teaching.

Ecological Structures: Classroom Seating Arrangements

The proposed framework views classroom seating arrangements as ecological structures that allow interactions within classroom environments. The framework focuses on three seating configurations, such as traditional row, U-shaped, and group-based seating, since each offers different ecological opportunities that foster communication and participation in learning activities. Traditional row is closely related to teacher-centred instruction, in which communication commonly is one way from teacher to students with limited peer interaction (Harvey & Kenyon, 2013). Despite the classroom control this arrangement may offer, it may reduce opportunities for collaboration among students.

In contrast, U-shaped and group-based seating arrangements allow more interactions between students to occur and promote greater visibility and peer accessibility. These arrangements, therefore, support more dialogues and collaborations between students in classroom activities (Gao et al., 2022; Rands & Gansemer-Topf, 2017). However, this framework does not assume that interactive seating arrangements directly result in the increase in student engagement. It, rather, argues that the student engagement depends on contextual factors, such as teacher competence, classroom infrastructure, and class size. Accordingly, seating arrangements are conceptualized as ecological conditions that can facilitate or hinder the sociocultural interactions through which student engagement increases.

Mediating Dimension: Classroom Interactional Dynamics

The framework argues that classroom interaction is the medium for the relationship between seating arrangements and student engagement through four dimensions: interaction, visibility, teacher proximity, and student collaboration. Interaction is the main idea of sociocultural learning, since communicative participation allows dialogue, questioning, and collaborative meaning-making between teachers and students to occur (Vygotsky, 1978). The arrangements that seat students face-to-face can minimize communication barriers and foster classroom interaction, especially in EFL settings (Will et al., 2020). Similarly, greater visibility

enables students to communicate with their peers and teachers, increasing attentiveness and participation during classroom activities (Larson et al., 2020; Petagra, 2024; Willingham, 2021).

Teacher proximity further supports student engagement by allowing teachers to give feedback, monitor participation, and facilitate classroom interaction effectively (Gremmen et al., 2016). Likewise, group-based seating promotes peer collaboration through shared problem-solving, peer scaffolding, and communicative interactions, which are crucial activities in language learning. However, collaborative seating arrangements may not directly produce positive results as they may also cause classroom distractions and off-task behaviours, especially when they are not managed effectively. Consequently, the framework suggests that these interactional processes should be seen as contextual mechanisms through which the classroom seating arrangements influence student engagement.

Outcome Dimension: Student Engagement

In this framework, student engagement in classroom activities is conceptualized as a multidimensional construct, which comprises behavioural, emotional, and cognitive dimensions. The behavioural engagement refers to students' participation in classroom discussion and collaborative activities. Then, the emotional dimension is related to students' motivation and willingness to participate in the classroom teaching. Meanwhile, the cognitive engagement refers to sustained attention and active meaning-making from the students during teaching and learning processes.

The framework ultimately proposes that meaningful engagement is more likely to occur in classroom settings that mediates interactional and collaborative rather than passive or teacher-centred learning. As a result, student engagement is viewed as the outcome of dynamic interactions between various educational components, such as classroom spaces, sociocultural learning processes, and pedagogical practices in the senior high school EFL teaching contexts.

DISCUSSION AND IMPLICATIONS

Relevance to Indonesian English Language Classrooms

This conceptual framework is highly relevant to Indonesian high school classrooms, in which student-centred learning is strongly emphasized in the Indonesian educational policies, such as *Merdeka Belajar* and *Kurikulum Merdeka* (Pratama et al., 2026). These policies focus on communicative, collaborative, and participatory learning activities. However, teaching and learning processes in Indonesian schools have commonly been influenced by teacher-centred approaches, examination-oriented teaching, and rigid seating arrangements. As a result, interactive approaches are frequently hindered both by instructional practices and the ecological structure of classroom settings.

This proposed framework makes a crucial contribution to the Indonesian educational context by reconceptualizing seating arrangements as pedagogical and ecological structures instead of solely classroom management strategies. Previous studies in the Indonesian context have reported that interactive seating arrangements improve participation and communication between teachers and students (Aminah et al., 2021; Nurfaidah et al., 2021). However, these studies only focus on behavioural results without providing a comprehensive explanation of the sociocultural mechanisms underlying student engagement. This framework aims to address this gap by mentioning that seating arrangements have an indirect influence

on student engagement. These seating arrangements require other crucial factors, such as visibility, teacher proximity, accessibility, and communicative participation, to effectively lead to student engagement in classroom activities.

The framework also recognizes practical obstacles within Indonesian schools. These hindrances include large class sizes, limited classroom spaces, rigid furniture, and teachers' excessive workloads that may limit the implementation of the interactive seating arrangements. Cultural norms that emphasize teacher authority may also become one factor that influences students' eagerness to engage in classroom activities. Therefore, the interactive seating arrangements are not presented as the most effective solutions to elevate student engagement in classrooms. They are, instead, introduced as context-dependent pedagogical structures that are shaped by classroom ecology, teacher competence, and institutional support.

Implications

The discussion and proposal embedded in this framework lead to crucial implications not only for classroom theory and practice but also for educational policy. As a pedagogical element of student learning, seating arrangements play an important role in shaping classroom activities. This framework showcases its contribution to the ongoing formulation of effective classroom teaching that promotes supportive learning environments and enhances student engagement in English language classes.

Implications for Theory

This framework provides a contribution to educational research by integrating Sociocultural Theory (Vygotsky, 1978) and Ecological Theory (Bronfenbrenner, 1979) to explain student engagement within classroom seating arrangements. Different from the previous studies that treat classroom arrangements as a logistic element, the framework conceptualizes the arrangements as ecological affordances that facilitate or hinder dialogue, collaboration, and communication. Accordingly, student engagement is seen as the product of interactions between classroom ecology, sociocultural processes and pedagogical practices, while recognizing the influence of contextual factors, such as teacher competence, class size, and school facilities.

Implications for Pedagogical and School Practices

The proposed framework encourages teachers to consider adopting flexible seating arrangements aligning with instructional goals, with a U-shaped layout supporting discussion and visibility, and group seating fostering collaboration and project-based learning (Yang et al., 2022). Instead of replacing traditional row seating arrangements, the framework encourages adaptive layouts according to classroom conditions, teaching goals, and school realities. It also advocates that schools support interactive learning by improving classroom structure flexibility, providing moveable furniture, and offering professional development in collaborative pedagogy for teachers (Will et al., 2020), while recognizing hindrances such as limited infrastructure and funding.

Implication for Policymakers

The framework highlights classroom settings as a crucial element of pedagogical quality within Indonesian education. It suggests that policymakers improve classroom flexibility through adaptable furniture, support professional development programs for teachers, and recognise learning environments as an essential component of educational quality assurance.

However, these initiatives should be implemented gradually and adapted to local contexts, especially in public and rural schools with their resource limitations, overcrowded classes, and inadequate facilities.

LIMITATIONS

This conceptual framework has not been empirically tested in Indonesian senior high school EFL classrooms, therefore, requires future validation. It focuses on sociocultural and ecological perspectives while excluding other theoretical approaches. Furthermore, its applicability is context-dependent, as classroom interaction is influenced by culture, institutional conditions, class size, and teacher competence.

CONCLUSION

This conceptual paper reconceptualizes classroom seating arrangements as ecological and pedagogical structures that enhance EFL student engagement in Indonesian senior high schools. Drawing on Sociocultural Theory (Vygotsky, 1978) and Ecological System Theory (Bronfenbrenner, 1979), the paper suggests that engagement is mediated through interactional affordances rather than only through the seating arrangements themselves. By integrating sociocultural and classroom ecology, the framework explains how contextual factors, including teacher competence, infrastructure, and class size, shape communicative and collaborative learning.

From a practical perspective, the framework argues that the importance of aligning classroom spatial organization with the objectives of communicative and student-centred learning approaches recommended by the Indonesian educational reforms (*Merdeka Belajar* and *Kurikulum Merdeka*). Instead of advocating uniformity in classroom layouts, the paper proposes a context-sensitive and flexible utilization of seating arrangements according to the teaching objectives, classroom conditions, and school realities. Hence, the framework considers classroom ecology as an essential factor in the discussions of teaching quality, classroom management, and EFL teaching.

Nonetheless, this conceptual study is inherently limited by its lack of empirical testing. Future endeavours are therefore required to examine the proposed framework across different contexts in Indonesian education using a variety of research methods, such as qualitative, quantitative, and mixed-method approaches. These studies should also investigate how teacher beliefs, classroom infrastructure, and technological integration influence the relationship between seating arrangements and student engagement in EFL classrooms. Overall, this paper establishes a theoretical foundation for future studies and teaching innovations related to classroom ecology, the sociocultural environment, and student engagement. More importantly, the paper provides a strong emphasis on the understanding that classroom space should not be viewed solely as a physical setting for teaching and learning activities, but as an active pedagogical setting that fosters student interaction, participation, and meaningful learning.

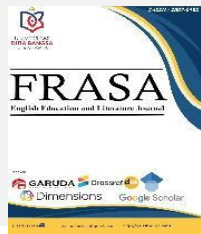
AUTHOR CONTRIBUTION

Author 1: Conceptualization, Literature Review, Writing Original Draft Preparation; **Author 2:** Reviewing, Supervision; **Author 3:** Visualization, Writing, Editing; **Author 4:** Literature Validation, Reviewing.

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