



# Designing Motivational Flipped Learning Environments

## (A Conceptual Framework for Enhancing EFL Reading Comprehension among Secondary School Students)

**Abdullah Abdulaziz Abdullah Alghamdi**

Ph.D. Researcher in Educational Technology, King Abdulaziz University, Jeddah, Saudi Arabia

Email: [aalghamdi4485@stu.kau.edu.sa](mailto:aalghamdi4485@stu.kau.edu.sa)

**Prof. Ashraf bin Ahmed Zidan**

Professor of Educational Technology, College of Education, King Abdulaziz University, Saudi Arabia

Email: [azeidan@kau.edu.sa](mailto:azeidan@kau.edu.sa)

**Dr. Mohammed Abdulmaqsoud Abdullah Hamed**

Associate Professor of Educational Technology, College of Education, King Abdulaziz University, Saudi Arabia

Email: [mahamed1@kau.edu.sa](mailto:mahamed1@kau.edu.sa)

### ABSTRACT

This study develops a conceptual framework and practical design considerations for motivational flipped learning environments aimed at supporting EFL reading comprehension among secondary school students. Although flipped learning has gained increasing attention in language education, its effectiveness depends not only on shifting content delivery outside the classroom, but also on the quality of instructional and motivational design embedded across the learning process. The study adopts a descriptive-analytical conceptual approach based on structured literature synthesis. Relevant literature on flipped learning, EFL reading comprehension, motivational instructional design, student engagement, and digital learning environments was analyzed to identify key design principles. The proposed framework integrates three motivational perspectives: the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory. These perspectives are used to explain how motivational principles can be embedded across the pre-class, in-class, and post-class phases of flipped learning. The framework positions student engagement as a central process linking motivational flipped learning design with reading comprehension development. Based on the synthesis, the study proposes four domains of practical design considerations: digital content design, motivational instructional strategies, interactive classroom activities, and assessment and feedback practices.

**Keywords:** Flipped learning, motivational instructional design, conceptual framework, EFL reading comprehension, student engagement, secondary education, EFL instruction.



## 1. Introduction

Recent advances in digital learning have increased interest in flipped learning as a learner-centered instructional model that shifts initial content exposure outside the classroom and uses class time for active, collaborative work. In language education, recent systematic reviews show that flipped learning has become a prominent approach in both EFL and broader language-learning contexts because it expands opportunities for self-paced preparation, classroom interaction, and learner-centered engagement. This trend is also supported by broader EFL/ESL research on mobile learning, which indicates that mobile-supported environments can expand access to learning materials, encourage flexible participation, and provide opportunities for learners to engage with language content beyond the limits of traditional classroom instruction (Alotaibi & Zeidan, 2023a, 2023b). This growing body of research suggests that flipped learning is no longer viewed merely as a technological arrangement, but as a pedagogical model with increasing relevance to language instruction and digital-age learning design (Hava, 2024; Qi et al., 2024).

Reading comprehension remains a central yet demanding skill for EFL learners because successful reading depends not only on decoding written language but also on vocabulary knowledge, strategic processing, and sustained engagement with texts. Recent evidence suggests that flipped reading instruction can improve comprehension when learners are prepared before class through guided digital pre-reading activities and then engage in deeper interpretation, discussion, and text analysis during class. At the same time, these benefits are not automatic, since the effectiveness of flipped reading depends on the quality of pre-class support and students' readiness to engage with learning tasks in a self-directed manner (Fahmi et al., 2024; Tran et al., 2025). This instructional model aligns with constructivist learning theories that emphasize the role of active engagement and social interaction in knowledge construction. Instead of passively receiving information, learners actively participate in the learning process by discussing ideas, analyzing problems, and applying knowledge in authentic contexts (Lo & Hew, 2017; Qi et al., 2024).

Although flipped learning has gained growing attention in language education, its effectiveness is not determined by content delivery alone. In EFL reading contexts, students' willingness to engage with pre-class materials, persist in reading tasks, and participate actively in classroom discussion is strongly influenced by the motivational quality of the learning environment (Hava, 2024; Shen et al., 2025). Recent studies have reported promising effects of flipped approaches on reading-related outcomes, yet the literature still offers limited design-oriented guidance on how motivational principles can be systematically embedded across the pre-class, in-class, and post-class phases of flipped learning for secondary school EFL students (Fahmi et al., 2024; Qi et al., 2024; Tran et al., 2025). More specifically, few studies have translated major motivational perspectives, such as the ARCS model, Self-Determination Theory, and Expectancy-Value Theory, into an integrated conceptual framework and practical design considerations for enhancing reading comprehension in secondary EFL contexts (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020). Therefore, the present study addresses this gap by developing a theoretically grounded



conceptual framework and practical design considerations for motivational flipped learning environments in secondary EFL reading instruction.

## 2. Literature Review

### 2.1 Flipped Learning and EFL Reading Comprehension

Flipped learning has emerged as a learner-centered instructional model that reorganizes traditional teaching by shifting initial exposure to content outside the classroom and reserving face-to-face time for interactive and higher-order learning activities. In technology-enhanced education, this model has gained substantial attention because it expands opportunities for self-paced preparation, active participation, and collaborative knowledge construction. Meta-analytic evidence also indicates that flipped classroom approaches can have a positive effect on student performance across educational levels and disciplines, although their effectiveness depends on instructional design quality and implementation context (Strelan et al., 2020). Earlier systematic review evidence in English language teaching also indicates that flipped classroom research has reported both benefits and challenges in EFL contexts (Turan & Akdağ-Çimen, 2020). Recent reviews indicate that flipped learning has become increasingly relevant in language education, where it supports flexible access to instructional input and creates greater opportunities for communicative and meaning-focused classroom interaction (Hava, 2024; Qi et al., 2024). Rather than positioning learners as passive recipients of information, flipped learning encourages them to engage with digital materials before class and then use classroom time for discussion, application, and problem solving, which aligns well with learner-centered approaches in EFL instruction (Lo & Hew, 2017).

This instructional shift is particularly relevant to reading comprehension, which remains a central yet demanding skill in EFL learning. Reading comprehension involves more than decoding written language; it requires learners to construct meaning by drawing on vocabulary knowledge, background knowledge, strategic processing, and interpretive thinking (Duke & Cartwright, 2021; Grabe & Stoller, 2020). In flipped reading instruction, pre-class activities such as vocabulary previews, guiding questions, short videos, and structured reading tasks can prepare learners for deeper engagement with texts, while in-class time can be devoted to discussion, interpretation, and collaborative analysis. Recent studies suggest that such arrangements can improve students' participation in reading activities and support stronger comprehension outcomes when reading instruction is carefully structured within flipped environments (Fahmi et al., 2024; Qi et al., 2024; Tran et al., 2025).

However, the contribution of flipped learning to EFL reading comprehension is not automatic. Its effectiveness depends largely on the quality of instructional design, including the clarity of pre-class materials, the alignment between digital preparation and classroom activities, and the extent to which learners receive sufficient support to engage meaningfully with texts. Simply transferring content delivery to videos or online platforms does not in itself guarantee improved learning outcomes. Rather, flipped EFL reading instruction becomes more effective when digital resources, classroom interaction, and formative support are intentionally integrated to promote



active engagement with reading tasks and deeper comprehension processes (Lo & Hew, 2017; Qi et al., 2024; Shen et al., 2025).

## 2.2 Motivation in Flipped Learning Environments

Motivation plays a central role in students' engagement with learning activities and their persistence in completing challenging tasks. In digital learning settings, this role becomes even more critical because learners are often required to interact with instructional materials independently and regulate their own participation. When students perceive online tasks as uninteresting, overly difficult, or disconnected from their goals, they are less likely to sustain effort or complete learning activities effectively. Conversely, recent research indicates that motivational supports such as interactive tasks, immediate feedback, and gamified features can increase participation and strengthen engagement in technology-enhanced learning environments (Ryan & Deci, 2020; Sailer & Homner, 2020; Shen et al., 2025). Similarly, research on educational technology applications such as mobile learning, e-blogging, and interactive visual representations suggests that digital tools can support learner participation, awareness, and positive attitudes when they are pedagogically organized and aligned with instructional goals (Alotaibi & Zeidan, 2023b; Zeidan et al., 2015; Zeidan & Abdul-Majeed, 2019).

This issue is particularly important in flipped learning environments, where students are expected to engage with learning materials before class and arrive prepared for discussion, collaboration, and application. The effectiveness of the flipped model therefore depends not only on the availability of digital resources, but also on learners' willingness to interact with those resources in a sustained and meaningful way. If students fail to complete pre-class activities, or engage with them only superficially, the educational value of classroom interaction is substantially reduced. Recent studies accordingly suggest that the success of flipped learning is closely linked to the extent to which the learning environment is designed to sustain attention, support self-directed participation, and encourage meaningful engagement across the different phases of learning (Bond, 2020; Lo & Hew, 2017; Shen et al., 2025).

For this reason, motivation should be treated as an integral dimension of flipped learning design rather than as an optional enhancement. Motivational support can be embedded through clear learning goals, structured guidance, progress indicators, collaborative activities, and feedback mechanisms that help students recognize both the value of the task and their ability to succeed. In EFL reading contexts, such support is especially important because learners may experience linguistic difficulty, cognitive load, and low confidence when working with texts independently. Integrating motivational design into flipped learning can therefore strengthen students' readiness for classroom participation, deepen their engagement with reading tasks, and improve the overall coherence and effectiveness of the learning experience (Bond, 2020; Sailer & Homner, 2020; Shen et al., 2025).

## 2.3 Why Motivational Design Matters in Flipped EFL Reading?

Taken together, the literature suggests that the value of flipped learning in EFL reading lies not simply in relocating instruction outside the classroom, but in redesigning how learners engage with texts across the pre-class, in-class, and post-



class phases (Shen et al., 2025). Reading comprehension requires sustained cognitive effort, strategic processing, and active meaning making, all of which depend on learners' willingness to prepare before class and participate meaningfully during classroom interaction. Although flipped learning offers structural opportunities for such engagement, these opportunities may remain underused when learners experience low confidence, limited task value, or weak commitment to pre-class preparation. For this reason, recent scholarship increasingly points to the need for learning environments that combine cognitive support with motivational scaffolding to promote deeper engagement with reading tasks and more meaningful comprehension outcomes (Bond, 2020; Fahmi et al., 2024). This is consistent with broader digital learning research emphasizing that the effectiveness of technology-supported instruction depends not merely on the use of digital tools, but on how these tools are structured to promote interaction, awareness, and meaningful learner engagement (Zeidan et al., 2015; Zeidan et al., 2017; Zeidan & Abdul-Majeed, 2019). In this sense, motivational design should be understood as a central condition for making flipped EFL reading instruction pedagogically effective rather than as an optional enhancement (Ryan & Deci, 2020). When students perceive reading tasks as relevant, manageable, and worth investing effort in, they are more likely to interact seriously with pre-class materials, participate in collaborative interpretation, and persist in challenging comprehension activities. This design orientation is particularly important in secondary education, where learners may vary in language proficiency, self-regulation, and readiness for independent learning. Accordingly, the effectiveness of flipped EFL reading environments depends on the extent to which motivational principles are systematically embedded into instructional design. The next section therefore outlines the theoretical perspectives that inform the proposed framework for motivational flipped learning environments (Hava, 2024; Qi et al., 2024).

### 3. Theoretical Framework

The proposed framework is grounded in three complementary motivational perspectives: the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory. These perspectives were selected because flipped learning in EFL reading contexts requires more than content delivery and classroom restructuring; it also requires instructional conditions that attract learners' attention, support their psychological needs, and strengthen their beliefs about task value and success. Together, the three theories provide a multidimensional explanation of how motivational support can enhance engagement with reading activities across the pre-class, in-class, and post-class phases of flipped learning (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020; Shen et al., 2025).

In the context of secondary EFL reading instruction, this theoretical integration is particularly important because learners are expected to interact with texts independently before class, participate actively in collaborative interpretation during class, and continue reflecting on their learning afterward. Such engagement depends not only on the cognitive structure of the tasks but also on how the learning environment sustains motivation, builds confidence, and promotes meaningful



participation. The following subsections therefore explain the contribution of each theory to the design of motivational flipped learning environments.

### 3.1 ARCS as a Motivational Design Lens

The ARCS model, developed by Keller (2010), offers a practical instructional design framework for supporting learner motivation through four interrelated components: Attention, Relevance, Confidence, and Satisfaction. Unlike broader motivational theories that focus mainly on psychological explanation, the ARCS model is especially useful for instructional design because it translates motivation into concrete design considerations. In technology-enhanced learning environments, these four components help explain how instructional materials and learning activities can be designed to stimulate curiosity, sustain engagement, and encourage persistence throughout the learning process (Keller, 2010; Bond, 2020).

Within flipped EFL reading instruction, the attention component is particularly relevant during the pre-class phase, where students first encounter digital learning materials independently. Attention can be supported through short videos, visually organized content, guided prompts, and interactive tasks that arouse curiosity and prepare learners for reading. Relevance can be enhanced by connecting reading materials to learners' interests, academic needs, and real-world concerns, thereby helping students perceive reading tasks as meaningful rather than routine obligations. Confidence becomes essential when learners are required to work with texts before class, as they need clear expectations, scaffolded tasks, and manageable learning sequences that help them feel capable of success. Satisfaction, in turn, is reinforced through timely feedback, recognition of effort, and opportunities to experience progress in reading comprehension. For this reason, the ARCS model provides an important design lens for structuring flipped learning environments in ways that make reading tasks more engaging, purposeful, and achievable (Keller, 2010; Duke & Cartwright, 2021; Grabe & Stoller, 2020; Shen et al., 2025).

### 3.2 Self-Determination Theory and Learner Needs

Self-Determination Theory (SDT) adds a psychological dimension to the proposed framework by explaining how motivation is shaped by the satisfaction of three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2020). From this perspective, learners are more likely to participate actively and persist in academic tasks when they experience a sense of choice, feel capable of success, and perceive meaningful connection with others. SDT is especially relevant to flipped learning because this model places greater responsibility on students to regulate their learning before class and contribute actively during classroom interaction.

In flipped EFL reading environments, autonomy can be supported by allowing learners to access materials at their own pace, revisit explanations when necessary, and exercise some control over how they approach pre-class reading tasks. Competence can be strengthened through structured scaffolding, guided reading questions, vocabulary support, and feedback that helps students interpret texts with increasing confidence. Relatedness becomes especially important during the in-class phase, where discussion, peer interpretation, and collaborative analysis allow learners to build shared understanding and feel socially supported in their reading efforts.



Taken together, these three needs explain why motivational support in flipped learning cannot be limited to external incentives alone. Rather, effective design should create conditions in which learners feel agentic, capable, and connected throughout the reading process (Ryan & Deci, 2020; Bond, 2020).

### 3.3 Expectancy-Value Theory and Task Engagement

While the ARCS model focuses on motivational design features and SDT explains the psychological conditions that support motivation, Expectancy-Value Theory (EVT) explains why learners choose to invest effort in academic tasks in the first place. According to EVT, students' motivation depends primarily on two factors: their expectancy for success and the value they assign to the task (Eccles & Wigfield, 2020). Learners are more likely to engage seriously with a task when they believe that they can perform it successfully and when they perceive it as useful, important, or personally meaningful.

This perspective is highly relevant to EFL reading instruction because many students may approach reading tasks with uncertainty, low confidence, or limited sense of purpose. In flipped learning environments, expectancy for success can be strengthened through well-sequenced pre-class preparation, clear instructions, guided support, and opportunities for gradual mastery before more demanding classroom discussion begins. Task value can be enhanced by selecting authentic texts, highlighting the academic and practical importance of reading comprehension, and showing learners how reading skills contribute to broader educational goals. In this way, EVT explains why motivational flipped learning design should not only support engagement behaviorally but also influence how learners perceive the difficulty, usefulness, and significance of reading tasks. These perceptions shape whether students prepare before class, persist during discussion, and continue investing effort in comprehension activities (Eccles & Wigfield, 2020; Duke & Cartwright, 2021; Grabe & Stoller, 2020).

### 3.4 Integrating ARCS, SDT, and EVT in Motivational Flipped Learning

The integration of ARCS, SDT, and EVT provides a more comprehensive framework than any single theory alone. The ARCS model identifies how motivation can be embedded into instructional design through attention, relevance, confidence, and satisfaction. SDT explains the psychological conditions under which learners are more likely to experience sustained and self-directed engagement, namely autonomy, competence, and relatedness. EVT adds a complementary explanation by showing that learners' effort is shaped by their beliefs about success and the perceived value of the task. When combined, these theories offer a coherent basis for designing flipped learning environments that address both instructional structure and motivational experience (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

In practical terms, this integration is especially useful for flipped EFL reading because motivation must be sustained across multiple learning phases rather than at a single moment of instruction. During the pre-class phase, attention can be captured through engaging digital materials, autonomy can be supported through self-paced access, and expectancy for success can be reinforced through guided preparation. During the in-



class phase, relevance can be strengthened through meaningful discussion, relatedness can be fostered through collaboration, and confidence can be deepened through teacher scaffolding and peer interaction. During the post-class phase, satisfaction can be reinforced through feedback and reflection, competence can be consolidated through formative assessment, and task value can be sustained by helping learners recognize the broader significance of reading development. Accordingly, the integrated use of ARCS, SDT, and EVT offers a strong theoretical basis for the proposed conceptual framework of motivational flipped learning environments. The next section builds on this theoretical synthesis to present the proposed framework in a more structured form (Bond, 2020; Shen et al., 2025).

#### 4. Methodology of Framework Development

This study adopted a descriptive-analytical conceptual approach based on structured literature synthesis. This approach was selected because the purpose of the study was not to test the effectiveness of an intervention empirically, but to synthesize relevant theoretical perspectives and empirical findings in order to develop a conceptual framework and practical design considerations for motivational flipped learning environments in secondary EFL reading instruction. Literature-based research is appropriate when a study aims to organize existing knowledge, clarify conceptual relationships, and generate theoretically grounded guidance for future research and practice (Snyder, 2019; Grant & Booth, 2009). The methodological process therefore focused on identifying, analyzing, and integrating literature related to flipped learning, motivational instructional design, learner engagement, and EFL reading comprehension.

##### 4.1 Research Design

The study followed a conceptual framework development design. This design is appropriate when the purpose of research is to construct a coherent conceptual structure by identifying key concepts, clarifying relationships among them, and organizing them into an explanatory framework (Jabareen, 2009). In the present study, the framework was developed through the integration of three main sources of knowledge: research on flipped learning in language education, research on reading comprehension in EFL contexts, and motivational theories relevant to digital and learner-centered learning environments. These sources were synthesized to explain how motivational design can be embedded across the pre-class, in-class, and post-class phases of flipped learning to support student engagement and reading comprehension.

The development process consisted of four main stages. First, relevant literature was identified through academic databases and reference tracking. Second, studies were screened according to their relevance to the study focus. Third, the selected literature was analyzed thematically to extract recurring instructional and motivational design principles. Fourth, the extracted principles were organized into a conceptual framework and translated into practical design considerations for motivational flipped learning environments.



## 4.2 Literature Identification and Selection

Relevant literature was identified from major academic databases and search platforms, including Scopus, Web of Science, ERIC, and Google Scholar. The search focused on studies published between 2020 and 2025 in order to ensure that the framework was informed by recent developments in flipped learning, digital learning environments, motivational design, and EFL reading instruction. Foundational theoretical sources published before this period were also included when they represented key theoretical models, such as the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

The search terms included combinations of the following keywords: flipped learning, flipped classroom, EFL reading comprehension, reading comprehension, motivational instructional design, ARCS model, self-determination theory, expectancy-value theory, learner engagement, digital learning environments, mobile learning, e-blogging, interactive infographics, wiki-based content organization, digital video, microteaching, gamification, feedback, formative assessment, and educational technology-supported learning. These terms were combined to identify studies that addressed the intersection between flipped learning, motivation, and reading instruction rather than studies that treated these topics separately.

The search was not intended to produce a full systematic review or meta-analysis. Rather, it was conducted to identify and synthesize conceptually and pedagogically relevant literature that could inform the development of a design-oriented framework. Therefore, the selection process emphasized theoretical relevance, instructional design value, and applicability to motivational flipped EFL reading environments. Foundational theoretical works were retained even when they were published before 2020 because they provided the core conceptual basis for the framework.

In addition to recent studies published between 2020 and 2025, selected earlier educational technology studies were included when they directly informed the practical design considerations of the proposed framework. These studies addressed areas such as mobile learning, e-blogging, interactive infographics, wiki-based content organization, and digital video-based professional development. Although these studies were not all directly focused on flipped EFL reading, they were retained because they provided pedagogically relevant insights into digital content design, learner interaction, motivation, metacognitive engagement, and teacher professional development.

## 4.3 Inclusion and Exclusion Criteria

The literature was selected according to criteria that ensured relevance to the purpose of the study. Studies were included if they addressed one or more of the following areas: flipped learning or flipped classroom design, motivational design in digital learning environments, learner engagement in technology-enhanced education, reading comprehension in EFL or language learning contexts, or theoretical models of motivation applicable to instructional design. Priority was given to peer-reviewed journal articles, systematic reviews, meta-analyses, and theoretically significant books



or chapters. Educational technology studies that were not directly focused on EFL reading were also included when they offered clear design implications for digital content organization, learner interaction, motivational support, metacognitive engagement, or teacher professional development within technology-supported learning environments.

Studies were excluded if they focused only on the technical use of digital tools without addressing instructional, motivational, pedagogical, or professional development dimensions, or if they lacked clear relevance to the design of motivational technology-supported learning environments. This selection process helped ensure that the reviewed literature was directly relevant to the development of a framework for motivational flipped EFL reading environments.

To enhance transparency, the selected literature was examined in relation to three guiding questions: first, how flipped learning can be structured across pre-class, in-class, and post-class phases; second, how motivational principles can be embedded in digital and classroom-based learning environments; and third, how these principles may support engagement and reading comprehension in EFL contexts. Literature that did not contribute clearly to one of these questions was excluded from the final synthesis.

#### 4.4 Data Analysis and Thematic Synthesis

The selected literature was analyzed using thematic synthesis, which is suitable for identifying recurring concepts, grouping related ideas, and generating analytical themes from a body of literature (Thomas & Harden, 2008). The analysis focused on identifying recurring principles and design patterns related to four areas: flipped learning structure, motivational support, engagement with reading tasks, and assessment and feedback.

The first group of themes related to digital content design, including short instructional videos, vocabulary preparation, guiding questions, authentic texts, multimedia support, and accessibility of learning materials. The second group related to motivational strategies, including attention, relevance, confidence, satisfaction, autonomy, competence, relatedness, expectancy for success, and task value. The third group related to classroom interaction, including collaborative reading, peer discussion, scaffolding, reflective dialogue, and critical analysis of texts. The fourth group related to assessment and feedback, including formative assessment, digital quizzes, self-assessment, peer assessment, progress tracking, and adaptive feedback.

These themes were then compared and refined in light of the theoretical framework. The ARCS model was used to identify motivational design features, Self-Determination Theory was used to interpret learner autonomy, competence, and relatedness, and Expectancy-Value Theory was used to explain learners' beliefs about success and the perceived value of reading tasks (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020). This process allowed the study to move from a descriptive review of literature to a structured synthesis that informed the proposed framework.

#### 4.5 Framework Development and Practical Design Considerations

The development of the framework involved translating the synthesized themes into a coherent design structure for motivational flipped learning environments. Following



the logic of conceptual framework development, the extracted concepts were organized into related domains and connected to explain how motivational design may support engagement and reading comprehension in flipped EFL instruction (Jabareen, 2009). The framework was organized around the three main phases of flipped learning: pre-class preparation, in-class interaction, and post-class consolidation.

In the pre-class phase, the framework emphasizes attention, autonomy, expectancy for success, and preparation for reading. These principles are reflected in design features such as short videos, vocabulary previews, guiding questions, and interactive digital tasks. In the in-class phase, the framework emphasizes relevance, relatedness, competence, and collaborative meaning making. These principles are reflected in discussion-based reading activities, peer interaction, teacher scaffolding, and critical analysis of texts. In the post-class phase, the framework emphasizes satisfaction, reflection, feedback, and continued engagement. These principles are reflected in formative assessment, self-assessment, progress tracking, and adaptive feedback.

Based on this synthesis, practical design considerations were developed across four domains: digital content design, motivational instructional strategies, interactive classroom activities, and assessment and feedback practices. These domains represent the practical translation of the theoretical framework into guidelines that can support teachers, instructional designers, and curriculum developers in designing motivational flipped learning environments for secondary EFL reading instruction.

## 5. Proposed Conceptual Framework

The proposed conceptual framework explains how motivational instructional design can be embedded within flipped learning environments to support students' engagement with EFL reading tasks and enhance reading comprehension development among secondary school students. The framework is grounded in the integration of the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory, and it is organized around the three instructional phases of flipped learning: pre-class preparation, in-class interaction, and post-class consolidation. Rather than presenting empirically tested causal relationships, the framework provides a theoretically grounded explanation of how motivational design principles may guide the development of effective flipped EFL reading environments (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020; Bond, 2020).

The framework is based on the assumption that flipped learning becomes more pedagogically effective when its instructional structure is supported by motivational scaffolding. In EFL reading contexts, students are expected to prepare before class, interact with texts independently, participate in collaborative interpretation during class, and reflect on their learning after class. These tasks require not only cognitive support but also sustained motivation. Therefore, the proposed framework positions motivational design as an essential component that connects flipped learning activities with student engagement and reading comprehension development (Duke & Cartwright, 2021; Fahmi et al., 2024; Shen et al., 2025).



### 5.1 Main Components of the Framework

The framework consists of four main components: motivational flipped learning environment, instructional learning phases, student engagement with reading tasks, and reading comprehension development. The first component, motivational flipped learning environment, refers to the intentional design of digital and classroom-based learning experiences that integrate motivational principles into flipped instruction. This includes the use of engaging digital materials, structured guidance, collaborative activities, feedback mechanisms, and motivational strategies that support learners' attention, relevance, confidence, autonomy, competence, relatedness, expectancy for success, and task value. These motivational dimensions reflect the combined contribution of ARCS, Self-Determination Theory, and Expectancy-Value Theory to instructional design (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

The second component is the organization of learning into three phases: pre-class, in-class, and post-class learning. In the pre-class phase, students interact with digital learning materials such as short instructional videos, vocabulary previews, guiding questions, and interactive tasks. In the in-class phase, students participate in collaborative reading activities, peer discussion, teacher-guided interpretation, and critical analysis of texts. In the post-class phase, students engage in reflection, formative assessment, self-assessment, and feedback-based improvement. These phases provide the instructional structure through which motivational design principles can be embedded in flipped learning environments (Bond, 2020; Qi et al., 2024; Shen et al., 2025).

The third component is student engagement with reading tasks. Engagement is positioned as the central process through which motivational flipped learning environments support reading development. When students are motivated to complete pre-class preparation, participate in classroom interaction, and reflect on their progress, they are more likely to invest cognitive effort in reading tasks. This engagement includes behavioral participation, cognitive processing, emotional involvement, and social interaction with peers and teachers. Such a multidimensional view of engagement is particularly important in technology-enhanced and flipped learning environments, where learners' active participation strongly influences the quality of learning experiences (Bond, 2020; Shen et al., 2025).

The fourth component is reading comprehension development. In this framework, reading comprehension is viewed as the intended learning outcome that may be supported through sustained engagement with reading materials. The framework assumes that students' comprehension can be strengthened when they are prepared before class, actively involved in classroom interpretation, and supported through feedback and reflection after class. This process is especially important in EFL contexts, where learners often require vocabulary support, strategic guidance, and confidence-building experiences to deal with unfamiliar texts (Grabe & Stoller, 2020; Duke & Cartwright, 2021; Fahmi et al., 2024).

### 5.2 Motivational Design Across Flipped Learning Phases

In the pre-class phase, motivational design focuses on preparing students to engage with reading materials before classroom instruction. Attention can be supported



through visually engaging digital resources, short videos, and interactive tasks. Autonomy can be promoted by allowing students to access learning materials at their own pace and revisit them when needed. Expectancy for success can be strengthened through clear instructions, vocabulary support, guiding questions, and manageable reading tasks. These design features help students approach reading materials with greater readiness and confidence before entering the classroom (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

In the in-class phase, motivational design focuses on sustaining engagement through interaction, collaboration, and guided meaning making. Relevance can be enhanced by connecting reading texts to students' interests, real-life contexts, and academic goals. Relatedness can be supported through peer discussion, collaborative reading, and group interpretation activities. Competence can be strengthened through teacher scaffolding, immediate clarification, and opportunities for students to apply reading strategies successfully. In this phase, classroom time is used not merely for checking comprehension but for deepening students' understanding of texts through social and cognitive engagement (Ryan & Deci, 2020; Duke & Cartwright, 2021; Grabe & Stoller, 2020; Shen et al., 2025).

In the post-class phase, motivational design focuses on consolidating learning and sustaining students' motivation for continued reading development. Satisfaction can be reinforced through constructive feedback, recognition of progress, digital quizzes, reflective activities, and self-assessment. Competence can be further supported by helping students identify areas of improvement and monitor their progress over time. Task value can also be strengthened when students are encouraged to reflect on how reading comprehension contributes to their academic achievement and broader language learning goals. These practices are consistent with research emphasizing the role of feedback, reflection, and self-regulated learning in flipped classroom design (Eccles & Wigfield, 2020; Sailer & Homner, 2020; Shen et al., 2025).

### 5.3 Engagement as a Connecting Process

The framework positions engagement as the connecting process between motivational flipped learning design and reading comprehension development. Motivational strategies embedded in the learning environment are expected to encourage students to participate more actively in reading-related tasks. For example, attention-oriented strategies may encourage students to begin pre-class tasks, relevance-oriented strategies may help them recognize the value of reading activities, and confidence-oriented strategies may support persistence when texts are challenging. Similarly, autonomy, competence, and relatedness may strengthen students' willingness to take responsibility for their learning and participate in collaborative interpretation (Keller, 2010; Ryan & Deci, 2020; Bond, 2020).

Engagement in this framework is not limited to observable participation. It also includes cognitive engagement, such as applying reading strategies and analyzing texts; emotional engagement, such as interest and confidence; and social engagement, such as discussion and peer collaboration. These forms of engagement are particularly important in EFL reading instruction because comprehension depends on active interaction with texts, ideas, and language. Therefore, the framework suggests that



motivational flipped learning environments can support reading comprehension when they create conditions for sustained and meaningful engagement across all phases of learning (Duke & Cartwright, 2021; Grabe & Stoller, 2020; Shen et al., 2025).

#### 5.4 Explanatory Logic of the Framework

The proposed framework follows a design-oriented explanatory logic. First, motivational principles derived from ARCS, Self-Determination Theory, and Expectancy-Value Theory are embedded into the structure of flipped learning. Second, these principles guide the design of pre-class, in-class, and post-class learning activities. Third, these activities are intended to increase students' engagement with reading tasks. Fourth, sustained engagement is expected to support the development of reading comprehension skills. This sequence reflects the theoretical assumption that instructional design, motivation, engagement, and learning outcomes are interrelated rather than isolated components of the learning process (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020; Bond, 2020).

This logic does not represent tested empirical hypotheses in the present study. Rather, it provides a theoretically grounded model that can guide instructional design and future empirical investigation. The framework therefore serves two main purposes. Conceptually, it explains how motivational theory can be integrated with flipped learning pedagogy in EFL reading contexts. Practically, it provides a foundation for deriving practical design considerations that teachers and instructional designers can use when developing motivational flipped learning environments (Jabareen, 2009; Snyder, 2019; Shen et al., 2025). The following section translates this conceptual framework into practical design considerations that can guide the development of motivational flipped learning environments for secondary EFL reading instruction.

### 6. Design Considerations for Motivational Flipped EFL Reading

Based on the proposed conceptual framework, this section presents practical design considerations for motivational flipped learning environments aimed at supporting EFL reading comprehension among secondary school students. These considerations were derived from the structured synthesis of literature and from the integration of the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory within the three phases of flipped learning. Accordingly, these considerations are intended to translate the theoretical framework into practical design guidance that can support teachers, instructional designers, and curriculum developers in developing motivational flipped reading environments (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020; Shen et al., 2025).

The proposed considerations are organized into four interrelated domains: digital content design, motivational instructional strategies, interactive classroom activities, and assessment and feedback practices. These domains reflect the main instructional and motivational requirements of flipped EFL reading instruction. Digital content design addresses the quality and structure of pre-class learning materials. Motivational instructional strategies focus on sustaining learners' attention, relevance, confidence, autonomy, competence, and task value. Interactive classroom activities emphasize collaborative meaning making and higher-order engagement with texts.



Assessment and feedback practices support reflection, progress monitoring, and continued reading development (Bond, 2020; Duke & Cartwright, 2021; Fahmi et al., 2024; Sailer & Homner, 2020).

**Table 1**  
**Design Considerations for Motivational Flipped EFL Reading**

Framework Domain	Design Considerations
Digital Content Design	Short instructional videos; manageable content segments; multimedia explanations; vocabulary previews; guiding questions before reading; authentic reading texts; visual organizers; interactive digital tasks; accessible learning materials; alignment with learning objectives.
Motivational Instructional Strategies	Engaging multimedia; task relevance; clear learning goals; learner autonomy; confidence-building scaffolding; immediate feedback; purposeful gamification; self-regulated learning; progress indicators; recognition of learners' achievements.
Interactive Classroom Activities	Collaborative reading; peer discussion; problem-solving tasks; critical text analysis; inquiry-based learning; reflective dialogue; peer feedback; cooperative learning; teacher scaffolding; real-life text connections.
Assessment and Feedback Practices	Formative assessment; digital comprehension quizzes; detailed feedback; reflective learning; self-assessment; peer assessment; higher-order comprehension evaluation; learner progress tracking; learning analytics; adaptive feedback.

The first domain, digital content design, is closely related to the pre-class phase of flipped learning. Since students are expected to engage with reading materials before classroom instruction, digital resources should be concise, accessible, and pedagogically aligned with reading objectives. Short instructional videos, vocabulary previews, guiding questions, and visual organizers can reduce cognitive load and prepare learners for deeper classroom engagement. In EFL reading contexts, such preparation is especially important because students may need linguistic and strategic support before they can participate meaningfully in text discussion and analysis (Grabe & Stoller, 2020; Duke & Cartwright, 2021; Fahmi et al., 2024).

The second domain, motivational instructional strategies, represents the central contribution of the proposed framework. These considerations translate motivational theory into design practices that can sustain learners' engagement across the flipped learning process. The ARCS model supports attention, relevance, confidence, and satisfaction; Self-Determination Theory emphasizes autonomy, competence, and relatedness; and Expectancy-Value Theory highlights expectancy for success and task value. Together, these principles suggest that students are more likely to engage with reading tasks when they perceive them as interesting, meaningful, achievable, and connected to their goals (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).



The third domain, interactive classroom activities, reflects the in-class phase of flipped learning. Once students have completed pre-class preparation, classroom time should be used for activities that deepen comprehension rather than repeat content delivery. Collaborative reading, peer discussion, teacher scaffolding, inquiry-based tasks, and critical analysis activities can help students move beyond literal understanding toward inferential and evaluative comprehension. These considerations are consistent with the view that reading comprehension develops through active interaction with texts, peers, and instructional support (Duke & Cartwright, 2021; Bond, 2020; Qi et al., 2024).

The fourth domain, assessment and feedback practices, supports the post-class and ongoing improvement phases of flipped learning. Formative assessment, digital quizzes, self-assessment, peer assessment, reflective tasks, and adaptive feedback can help students monitor their understanding and identify areas for improvement. These practices also reinforce motivation by making learning progress visible and by providing students with guidance for continued development. In motivational flipped learning environments, assessment should therefore function not only as a measurement tool, but also as a mechanism for feedback, reflection, and sustained engagement (Sailer & Homner, 2020; Shen et al., 2025).

Taken together, these four domains provide a practical translation of the proposed conceptual framework. They show how motivational principles can be embedded into the design of digital materials, classroom interaction, and assessment practices in order to support students' engagement with EFL reading tasks. These considerations are not intended to function as a rigid checklist; rather, they provide flexible design guidance that can be adapted according to learners' proficiency levels, curriculum requirements, available technologies, and classroom conditions.

## 7. Discussion

The proposed framework highlights the importance of treating motivation as an integral component of flipped EFL reading instruction rather than as an additional feature added to digital learning environments. In flipped learning, students are expected to interact with instructional materials before class, participate in collaborative activities during class, and reflect on their learning after class. These requirements make learner motivation central to the success of the model. In EFL reading contexts, this issue becomes even more important because students may face linguistic difficulty, limited vocabulary knowledge, low confidence, and weak persistence when working with texts independently. Therefore, the framework suggests that flipped learning can better support reading comprehension when pre-class, in-class, and post-class activities are designed not only to organize instruction, but also to sustain students' attention, confidence, task value, and engagement (Duke & Cartwright, 2021; Fahmi et al., 2024; Qi et al., 2024).

A major contribution of the proposed framework is that it integrates three motivational perspectives within the structure of flipped learning. The ARCS model contributes practical design principles related to attention, relevance, confidence, and satisfaction; Self-Determination Theory explains how autonomy, competence, and



relatedness support sustained motivation; and Expectancy-Value Theory clarifies how students' beliefs about success and task value influence their willingness to invest effort in learning tasks. By combining these perspectives, the framework offers a broader explanation of motivational flipped learning than would be possible through a single theory alone. This integration is particularly useful for EFL reading instruction because reading comprehension requires both cognitive processing and motivational persistence (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

The framework also emphasizes engagement as the connecting process between motivational design and reading comprehension development. In the proposed model, motivational design principles are expected to encourage students to complete pre-class preparation, participate actively in classroom interpretation, and use feedback to improve their comprehension. This view is consistent with research suggesting that student engagement in technology-enhanced learning involves behavioral, cognitive, emotional, and social dimensions. In flipped EFL reading environments, these dimensions are closely connected: students need to participate in reading tasks, apply strategies to understand texts, feel confident and interested, and interact meaningfully with peers and teachers during interpretation and discussion (Bond, 2020; Shen et al., 2025).

Another important implication of the framework is that flipped learning should not be reduced to the delivery of videos before class. The value of flipped instruction lies in the alignment between digital preparation, classroom interaction, and post-class consolidation. If pre-class materials are unclear or unmotivating, students may arrive unprepared. If classroom activities only repeat content, the potential of flipped learning is weakened. If feedback and reflection are absent, students may not recognize their progress or improve their reading strategies. For this reason, the proposed design considerations emphasize alignment among digital content design, motivational instructional strategies, interactive classroom activities, and assessment and feedback practices. These domains collectively translate the conceptual framework into actionable design guidance for secondary EFL reading contexts.

The proposed framework contributes to educational technology and language education by shifting attention from whether flipped learning is effective to how it should be designed to become effective. Previous flipped learning research has often focused on comparing flipped and traditional instruction, whereas the present framework focuses on the design conditions that may support successful implementation. This design-oriented perspective is important because the effectiveness of flipped learning depends on the quality of instructional planning, motivational support, classroom interaction, and feedback mechanisms. Accordingly, the framework provides a basis for teachers and instructional designers to develop flipped learning environments that address both the cognitive demands of reading comprehension and the motivational needs of learners (Lo & Hew, 2017; Hava, 2024; Shen et al., 2025).

At the same time, the framework should be interpreted as a conceptual contribution rather than an empirically validated model. It offers a theoretically grounded explanation of how motivational flipped learning environments may support



engagement and reading comprehension, but its effectiveness needs to be tested in future empirical studies. Such studies could examine whether the proposed design considerations improve students' engagement, reading comprehension, motivation, and self-regulated learning in secondary EFL contexts. Therefore, the present study provides a foundation for future research while also offering practical guidance for designing motivational flipped learning environments.

## 8. Practical Implications

The proposed framework offers practical guidance for teachers, instructional designers, curriculum developers, and schools seeking to implement motivational flipped learning environments in secondary EFL reading instruction. Since the framework emphasizes the integration of motivational design, flipped learning phases, student engagement, and reading comprehension support, its practical value lies in helping educators move beyond the simple use of videos before class toward a more coherent design of pre-class, in-class, and post-class learning experiences. In this sense, the framework can guide the design of learning environments that address both the cognitive demands of reading comprehension and the motivational needs of learners (Bond, 2020; Hava, 2024; Shen et al., 2025).

### 8.1 Implications for Teachers

For English language teachers, the framework suggests that flipped reading instruction should be planned as an integrated learning sequence rather than as a collection of separate digital and classroom activities. During the pre-class phase, teachers should provide concise and accessible learning materials, such as short videos, vocabulary previews, guiding questions, and interactive preparation tasks. These materials should help students approach reading texts with sufficient background knowledge and confidence before classroom discussion begins. Clear instructions and manageable tasks are especially important in EFL contexts, where students may experience difficulty with vocabulary, text structure, and comprehension strategies (Duke & Cartwright, 2021; Fahmi et al., 2024).

During the in-class phase, teachers should use classroom time for deeper engagement with reading texts rather than repeating the pre-class content. Activities such as collaborative reading, peer discussion, guided interpretation, problem-solving tasks, and critical analysis can help students move from literal understanding toward inferential and evaluative comprehension. The teacher's role in this phase is to scaffold understanding, clarify difficulties, encourage participation, and create opportunities for students to construct meaning through interaction. This is consistent with the learner-centered logic of flipped learning, where classroom time becomes a space for active learning and supported application (Lo & Hew, 2017; Qi et al., 2024). Teachers should also embed motivational support across all phases of learning. They can capture attention through engaging materials, strengthen relevance by connecting reading tasks to students' interests and academic goals, build confidence through gradual task progression, and reinforce satisfaction through feedback and recognition. In addition, teachers should support autonomy by allowing students to review



materials at their own pace, competence by providing scaffolding and feedback, and relatedness by encouraging collaborative learning. These practices can help students engage more seriously with reading tasks and sustain effort when texts are challenging (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020).

### 8.2 Implications for Instructional Design and Curriculum Development

For instructional designers and curriculum developers, the proposed framework emphasizes the need to align digital content, motivational strategies, classroom activities, and assessment practices. Digital materials should not be designed merely as substitutes for classroom lectures; rather, they should prepare students for meaningful classroom engagement. This means that pre-class resources need to be short, focused, visually clear, and directly connected to the reading objectives and subsequent in-class activities. Vocabulary support, guiding questions, visual organizers, and interactive tasks can help reduce cognitive load and prepare students for deeper comprehension work (Grabe & Stoller, 2020; Duke & Cartwright, 2021).

Curriculum developers can use the proposed design considerations to structure reading lessons across the three phases of flipped learning. Pre-class tasks may focus on preparation, vocabulary, and initial comprehension; in-class tasks may focus on discussion, interpretation, and critical analysis; and post-class tasks may focus on reflection, assessment, and feedback-based improvement. This sequencing can make reading instruction more coherent by ensuring that each phase contributes to the development of comprehension skills rather than functioning as an isolated activity.

The framework also suggests that motivational principles should be embedded at the level of curriculum design, not added only as surface-level digital features. Gamification, progress indicators, feedback, and interactive tasks can be useful when they serve clear pedagogical purposes. However, motivational design should also include deeper elements such as relevance, confidence building, autonomy support, task value, and opportunities for successful participation. This broader view can help designers create flipped reading environments that support both engagement and meaningful learning rather than relying only on technical tools or external rewards (Sailer & Homner, 2020; Shen et al., 2025).

### 8.3 Implications for Schools and Digital Learning Systems

For schools and educational institutions, the framework highlights the importance of providing the conditions needed for effective implementation. Motivational flipped learning requires more than individual teacher effort; it also requires access to digital platforms, stable technological infrastructure, suitable learning resources, and professional development. Teachers need training not only in using digital tools, but also in designing flipped lessons, creating motivational learning experiences, facilitating collaborative reading activities, and using assessment data to support students' progress (Bond, 2020; Lo & Hew, 2017). Professional development may also benefit from video-based and microteaching approaches, as previous educational technology research has highlighted the role of digital video sequences in supporting the development of teaching competencies (Zeidan et al., 2014).

Digital learning systems should also support the instructional logic of motivational flipped learning. Platforms used in such environments should allow teachers to



organize pre-class materials, track student participation, provide feedback, administer digital quizzes, and support communication and collaboration. When used appropriately, these features can help teachers identify students who need additional support and adjust instruction accordingly. However, technology should remain a means for improving learning design, not an end in itself. The effectiveness of flipped learning depends on how digital tools are integrated with pedagogy, motivation, interaction, and feedback (Hava, 2024; Shen et al., 2025).

Overall, the practical implications of the proposed framework suggest that motivational flipped EFL reading environments should be designed as coherent learning systems. Teachers, instructional designers, curriculum developers, and schools each play a role in ensuring that digital preparation, classroom interaction, motivational support, and assessment practices work together. When these elements are aligned, flipped learning can provide richer opportunities for students to engage with reading texts, participate in collaborative meaning making, and develop stronger reading comprehension skills.

## 9. Limitations and Future Research

Although the present study provides a theoretically grounded framework and practical design considerations for motivational flipped learning environments, several limitations should be acknowledged. Because the study did not involve classroom implementation, student participants, or experimental data, no claims are made regarding the actual effectiveness of the proposed framework at this stage. First, the study is conceptual in nature and is based on structured literature synthesis rather than empirical classroom implementation. Therefore, the proposed framework should be understood as a theoretically informed model that requires future validation in real educational settings. Empirical studies are needed to examine whether the proposed design considerations improve students' engagement, motivation, and EFL reading comprehension outcomes in secondary school contexts.

Second, the proposed design considerations were derived from existing literature and motivational theories, including the ARCS model, Self-Determination Theory, and Expectancy-Value Theory. Although these theoretical perspectives provide a strong foundation for instructional design, the practical effectiveness of these considerations may vary according to learner characteristics, teacher expertise, technological infrastructure, curriculum requirements, and school conditions. For this reason, future studies should investigate how these considerations function across different classroom contexts and learner proficiency levels.

Third, the scope of the framework is limited to EFL reading comprehension among secondary school students. While some of its principles may be applicable to other language skills or educational levels, such transferability cannot be assumed without further research. Future studies could examine whether motivational flipped learning environments support other EFL skills, such as writing, listening, speaking, or vocabulary development. Comparative studies may also explore whether the framework is more effective for particular reading levels, text types, or learner groups.



Future research should also move beyond conceptual development toward empirical testing. Quasi-experimental and mixed-methods studies could be conducted to examine the impact of motivational flipped learning environments on reading comprehension, learning motivation, student engagement, and self-regulated learning. Longitudinal studies would be especially useful because reading comprehension development is gradual and may require sustained exposure to motivational instructional design over time. In addition, qualitative research could explore students' and teachers' perceptions of the framework, including the factors that facilitate or hinder implementation.

Another promising direction for future research is the integration of emerging technologies into motivational flipped learning environments. Learning analytics, adaptive feedback, artificial intelligence tools, and gamified platforms may provide new opportunities to personalize reading support, monitor student engagement, and identify learners who need additional assistance. However, future research should examine how these technologies can be used pedagogically rather than merely technically, ensuring that they support meaningful reading engagement and do not distract from the instructional goals of EFL learning (Sailer & Homner, 2020; Shen et al., 2025).

Finally, future studies should examine the role of teacher professional development and institutional support in implementing motivational flipped learning environments. The success of such environments depends not only on the quality of digital content, but also on teachers' ability to design motivational tasks, facilitate collaborative reading activities, provide feedback, and manage the integration of pre-class, in-class, and post-class learning. Investigating these implementation factors can help refine the proposed framework and support its practical adoption in secondary EFL education (Bond, 2020; Lo & Hew, 2017).

## 10. Conclusion

This study developed a conceptual framework and practical design considerations for motivational flipped learning environments aimed at supporting EFL reading comprehension among secondary school students. The study was based on the assumption that flipped learning becomes more effective when its instructional structure is supported by intentional motivational design. In EFL reading contexts, students need not only access to digital materials and classroom interaction, but also motivational support that encourages them to prepare before class, participate actively during class, and reflect on their learning after class.

The proposed framework integrated three motivational perspectives: the ARCS motivational design model, Self-Determination Theory, and Expectancy-Value Theory. This integration provided a theoretical basis for explaining how attention, relevance, confidence, satisfaction, autonomy, competence, relatedness, expectancy for success, and task value can be embedded across the pre-class, in-class, and post-class phases of flipped learning (Keller, 2010; Ryan & Deci, 2020; Eccles & Wigfield, 2020). Through this integration, the study positioned student engagement as



a central process linking motivational flipped learning design with reading comprehension development.

The study also translated the proposed framework into four domains of practical design considerations: digital content design, motivational instructional strategies, interactive classroom activities, and assessment and feedback practices. These domains provide practical guidance for designing flipped EFL reading environments that are not limited to delivering content before class, but instead organize learning as a coherent sequence of preparation, interaction, feedback, and reflection. In this sense, the study contributes to educational technology and language education by shifting attention from whether flipped learning is useful to how it can be designed more effectively.

Although the framework is theoretically grounded, it remains conceptual and requires empirical validation. Future studies should empirically examine the proposed framework and its practical design considerations in real classroom contexts and assess their effects on students' reading comprehension, motivation, engagement, and self-regulated learning. Nevertheless, the framework provides a structured foundation for teachers, instructional designers, curriculum developers, and researchers interested in designing motivational flipped learning environments for secondary EFL reading instruction.

## References

1. Alotaibi, H. H., & Zeidan, A. A. (2023a). Mobile Learning Implementation In EFL/ESL: Qualitative Systematic Review. *Journal of Positive School Psychology*, 7(3), 896-920.
2. Alotaibi, H. H., & Zeidan, A. A. (2023b). Impact of mobile learning implementation in EFL/ESL: systematic review. *Journal of Positive School Psychology*, 7(3), 471-493.
3. Bond, M. (2020). Facilitating student engagement through the flipped learning approach in K-12: A systematic review. *Computers & Education*, 151, 103819. <https://doi.org/10.1016/j.compedu.2020.103819>
4. Duke, N. K., & Cartwright, K. B. (2021). The science of reading comprehension instruction. *The Reading Teacher*, 74(6), 663–672. <https://doi.org/10.1002/trtr.1993>
5. Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory. *Contemporary Educational Psychology*, 61, 101859. <https://doi.org/10.1016/j.cedpsych.2020.101859>
6. Fahmi, A., Mukminatien, N., Ginting, D., & Kusumaningrum, S. R. (2024). The impact of flipping class intervention on reading comprehension: Different approaches and proficiency levels. *PLOS ONE*, 19(6), e0305041. <https://doi.org/10.1371/journal.pone.0305041>
7. Grabe, W., & Stoller, F. L. (2020). *Teaching and researching reading* (3rd ed.). Routledge.
8. Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, 26(2), 91–108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>



9. Hava, K. (2024). A systematic review of flipped learning in EFL education. *Malaysian Online Journal of Educational Technology*, 12(4), 175–188. <https://doi.org/10.52380/mojet.2024.12.4.556>
10. Jabareen, Y. (2009). Building a conceptual framework: Philosophy, definitions, and procedure. *International Journal of Qualitative Methods*, 8(4), 49–62. <https://doi.org/10.1177/160940690900800406>
11. Keller, J. M. (2010). *Motivational design for learning and performance: The ARCS model approach*. Springer.
12. Lo, C. K., & Hew, K. F. (2017). A critical review of flipped classroom challenges in K-12 education: Possible solutions and recommendations for future research. *Research and Practice in Technology Enhanced Learning*, 12, Article 4. <https://doi.org/10.1186/s41039-016-0044-2>
13. Qi, P., Jumaat, N. F. B., Abuhassna, H., & Ting, L. (2024). A systematic review of flipped classroom approaches in language learning. *Contemporary Educational Technology*, 16(4), ep529. <https://doi.org/10.30935/cedtech/15146>
14. Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
15. Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review*, 32(1), 77–112. <https://doi.org/10.1007/s10648-019-09498-w>
16. Shen, Y., Spencer, D., Tagsold, J., & Kim, H. (2025). Integrating cognition, self-regulation, motivation, and metacognition: A framework of post-pandemic flipped classroom design. *Educational Technology Research and Development*, 73, 2425–2461. <https://doi.org/10.1007/s11423-025-10485-y>
17. Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
18. Strelan, P., Osborn, A., & Palmer, E. (2020). The flipped classroom: A meta-analysis of effects on student performance across disciplines and education levels. *Educational Research Review*, 30, 100314. <https://doi.org/10.1016/j.edurev.2020.100314>
19. Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8, Article 45. <https://doi.org/10.1186/1471-2288-8-45>
20. Tran, Q., Verezub, E., & Fisher, R. (2025). Flipping EFL reading comprehension classes: Students' learning achievement and perceptions. *Teaching & Learning Inquiry*, 13, 1–44. <https://doi.org/10.20343/teachlearningqu.13.13>
21. Turan, Z., & Akdağ-Çimen, B. (2020). Flipped classroom in English language teaching: A systematic review. *Computer Assisted Language Learning*, 33(5–6), 590–606. <https://doi.org/10.1080/09588221.2019.1584117>
22. Zeidan, A. A., Alhalafawy, W. S., Tawfiq, M. Z., & Abdelhameed, W. R. (2015). The effectiveness of some e-blogging patterns on developing the informational



awareness for the educational technology innovations and the King Abdul-Aziz University postgraduate students' attitudes towards it. *Life Science Journal*, 12(12), 53-61.

23. Zeidan, A. A., Shibl, E. S., & AL-Subahy, A. A. (2014). The effect of interaction between shooting angles and shots sizes in microteaching situations based on digital video sequences in the development of teaching competences among the students of general pedagogic diploma at King Abdulaziz university. *Life Science Journal*, 11(3).

24. Zeidan, A. A. A., & Abdul-Majeed, W. R. (2019). The effect of the level of navigation in interactive infographics on the motivation for achievement and the attitude towards digital visual representations. *British Journal of Education*, 7(12), 63-83.

25. Zeidan, A. A., Alhalafawy, W. S., & Tawfiq, M. Z. (2017). The effect of (macro/micro) wiki content organization on developing metacognition skills. *Life Science Journal*, 14(12), 114-120.