MOTIVATIONAL DESIGN FOR SYNTAX ACQUISITION: EXPLORING ARCS-BASED INSTRUCTIONAL STRATEGIES IN ESL CONTEXTS

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(Received 06th July 2026; revised 12th September 2026; accepted 29th September 2026)

Abstract. This study explores instructional strategies and interventions guided by the ARCS Motivation Model that may enhance students' motivation towards syntax acquisition. Syntax learning is often perceived as challenging among second language learners due to its abstract and complex nature, which can reduce engagement and hinder meaningful learning. To address this issue, this study employs a document analysis method, drawing on secondary sources from recent literature in second language acquisition, motivational theory, and ARCS- based instructional design, Through content analysis, the study synthesises existing scholarly perspectives to identify hor ARCS strategies: Attention, Relevance, Confidence, and Satisfaction, could be operationalised in syntax instructions. The findings conceptually suggest that attention-enhancing strategies such as visualisation and interactive tasks, relevance-building through contextualised learning, confidence-supporting scaffolded instruction, and satisfaction-oriented mastery activities may collectively contribute to improved learner motivation. When integrated with established linguistic theories such as Universal Grammar and Cognitive Linguistics perspectives, these strategies highlight the interconnected role of cognitive capacity and motivational design in syntax learning. Overall, the study proposes that ARCS Motivational Model interventions offer a meaningful framework for enhancing learner motivation and supporting more effective syntax acquisition in ESL contexts.
Keywords: *ARCS motivational model, syntax acquisition, ESL learners, learner motivation, instructional strategies*

Introduction

Syntax acquisition remains one of the most challenging components of second language learning, particularly for learners who struggle to internalise abstract grammatical rules and hierarchical sentence constructions, as these structures often impose substantial cognitive and processing demands during language development (Dörnyei, 2020). Unlike general grammar lessons, syntax requires learners to engage with complex linguistic elements such as phrase structures, sentence transformations, and structural ambiguity, which often demand higher-order cognitive processing (Dörnyei, 2020). This complexity has caused many learners to perceive syntax as difficult, monotonous, and disconnected from practical language use, resulting in reduced classroom participation and weaker motivation to engage deeply with syntactic analysis (Zhang and Hyland, 2022). Motivation plays a central role in determining a learner's success in language acquisition, as it influences persistence engagement, and the willingness to overcome learning difficulties (Ushioda, 2020). In cognitively demanding subjects such as syntax, motivation becomes particularly important because learners must maintain sustained effort to understand and apply complex grammatical structures. Recent perspectives in second language acquisition emphasise that motivation is not a static or single construct, but rather a dynamic system shaped by

multiple interacting internal and external factors that influence learner engagement and behaviour (Papi et al., 2019). Studies in second language learning have shown that motivated learners are more likely to actively participate in classroom tasks, engage in deeper cognitive processing, and demonstrate stronger language performance compared to less motivated learners (Dörnyei, 2020). To address these motivational challenges, instructional strategies must be designed in ways that sustain learners' engagement and reduce the cognitive burden associated with syntax learning. One widely recognised framework for this purpose is the ARCS Motivation Model developed by Keller (2010), which consists of four key components: Attention, Relevance, Confidence, and Satisfaction. The ARCS model provides a systematic approach for designing instructional strategies that not only captures learners' attention but also makes learning meaningful, achievable, and rewarding (Keller, 2010). Recent studies have highlighted the effectiveness of ARCS-guided instructional practices in improving learners' motivation across various educational settings. Strategies such as scaffolded instruction, visual learning tools, collaborative tasks, and interactive learning environments have shown to align with the motivational principles of ARCS by increasing learner engagement, reducing anxiety, and fostering positive learning experiences (Fang et al., 2024). In language learning contexts, ARCS design has also been found to enhance participation and sustain learning attention through structures and motivating classroom practices (Fang et al., 2024). In syntax learning specifically, interventions such as tree diagrams analysis, sentence mapping, and contextualised syntax tasks may serve as practical applications of the ARCS framework, helping learners visualise and internalise abstract syntactic concepts more effectively (Fang et al., 2024).

However, despite the growing body of research on motivation and instructional design, limited studies have specifically examined what strategies and interventions, guided by the ARCS Motivation Model, may enhance students' motivation towards syntax acquisition. Much of the existing literature focuses broadly on motivation in second language learning without addressing syntax as a distinct and complex linguistic domain (Ushioda, 2020). This gap suggests the need for a more focused conceptual exploration of instructional strategies that can be applied to improve learners' motivation in syntax lessons. Therefore, this study aims to explore instructional strategies and interventions guided by the ARCS Motivation Model that may enhance students' motivation towards syntax acquisition. Through document analysis of relevant literature, this study seeks to provide theoretical and pedagogical insights that may support educators in designing more engaging, motivating, and effective syntax instruction for English as a Second Language (ESL) learners. The integration of motivational principles into syntax instruction can be further understood through the relationship between learners' cognitive engagement, motivational orientations, and instructional experiences. Syntax learning requires learners not only to understand grammatical forms but also to recognise relationships among linguistic elements and apply syntactic knowledge to different sentence structures. Such learning processes may become more manageable when instructional activities are designed to encourage active engagement rather than passive reception of grammatical information. Learner engagement is particularly important because students may respond differently to instructional activities depending on their motivational orientations, expectations, and perceptions of learning tasks. Papi et al. (2019) demonstrate that second language motivation can be understood through different self-guides that influence how learners pursue their language-learning goals. These motivational differences suggest that syntax

instruction should provide learners with opportunities to experience meaningful progress while recognising individual differences in their motivation to learn. Furthermore, student engagement can involve behavioural, affective, and cognitive dimensions, indicating that effective instruction should encourage learners not only to participate in classroom activities but also to process information actively and develop positive responses towards learning (Zhang and Hyland, 2022). Within the ARCS framework, these dimensions can be supported by instructional strategies that attract Attention, demonstrate Relevance, develop Confidence, and provide Satisfaction. The systematic review by Fang et al. (2024) indicates that the ARCS model has been applied across different educational contexts as an instructional design framework and motivational tool. Consequently, applying ARCS principles to syntax instruction may provide a structured way of connecting motivational support with cognitively demanding learning activities. By designing syntax tasks that are visually accessible, appropriately challenging, relevant to actual language use, and accompanied by meaningful feedback, educators may create learning conditions that encourage students to remain engaged with grammatical analysis and progressively develop confidence in understanding complex syntactic structures (Fang et al., 2024; Zhang and Hyland, 2022; Keller, 2010).

Another important consideration is that the four components of the ARCS Motivation Model may provide complementary functions in addressing different motivational barriers encountered during syntax acquisition. Attention can be supported by presenting syntactic concepts through varied instructional materials, problem-solving activities, sentence comparisons, visual representations, and interactive tasks rather than relying exclusively on teacher-centred grammatical explanations. Relevance may be strengthened when learners recognise how syntactic knowledge contributes to meaningful communication, academic writing, sentence interpretation, and overall language development. Confidence is equally important because repeated difficulties in analysing sentence structures may cause learners to question their ability to understand syntax. Instructional activities can therefore be organised progressively, beginning with manageable structures before advancing towards more complex sentence patterns, thereby allowing learners to experience successful learning outcomes. Satisfaction may subsequently emerge when learners recognise their improvement, successfully complete challenging syntactic tasks, and receive constructive feedback on their performance. These four dimensions reflect Keller's (2010) argument that motivational design should systematically address learners' attention, perceived relevance, confidence, and satisfaction rather than treating motivation as an incidental outcome of instruction. More recent research also demonstrates the continuing relevance of ARCS as a framework for instructional design across diverse learning environments (Fang et al., 2024). At the same time, motivation in second language learning involves differences in learners' goals and self-guides, which may influence the ways in which students approach learning activities and sustain motivated behaviour (Papi et al., 2019). Therefore, combining ARCS-guided strategies with an understanding of individual motivational differences may provide a more comprehensive approach to syntax instruction. Rather than presenting syntax exclusively as a collection of abstract grammatical rules, educators may design learning experiences in which learners actively manipulate sentences, analyse patterns, receive feedback, collaborate with peers, and connect syntactic structures with meaningful language use. Such an approach may potentially

make syntax learning more accessible, purposeful, and motivating for ESL learners (Fang et al., 2024; Dörnyei, 2020; Keller, 2010).

Materials and Methods

This paper employs the document analysis method to explore instructional strategies and interventions guided by the ARCS Motivation Model that may enhance students' motivation towards syntax acquisition (Fang et al., 2024; Keller, 2010). Content analysis is conducted through secondary research, whereby relevant literature is systematically reviewed to identify and examine instructional approaches associated with the four motivational components of the ARCS model: Attention, Relevance, Confidence, and Satisfaction (Fang et al., 2024; Keller, 2010). The secondary data are gathered from multiple literatures reading from written publications related to syntax learning, second language motivation, and ARCS instructional designs (Fang et al., 2024; Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019; Keller, 2010). This approach enables the study to synthesise and interpret existing theoretical and pedagogical perspectives on how motivational strategies may support students' engagement and persistence in syntax acquisition (Zhang and Hyland, 2022; Dörnyei, 2020; Ushioda, 2020). The document selection process focuses on publications that are directly relevant to the conceptual relationship between instructional design, learner motivation, engagement, and syntax acquisition. The selected literature is examined according to its relevance to the objectives of the study and its potential contribution to understanding motivational strategies within language-learning environments. Particular attention is given to publications discussing the ARCS Motivation Model because the framework provides the primary conceptual foundation for categorising instructional strategies into Attention, Relevance, Confidence, and Satisfaction (Fang et al., 2024; Keller, 2010).
Literature concerning second language motivation is also considered to provide a broader theoretical understanding of how motivational orientations may influence learners' willingness to engage in cognitively demanding learning activities (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). In addition, studies addressing student engagement are examined because engagement represents an important dimension through which motivational instructional practices may influence students' learning experiences and responses to classroom activities (Zhang and Hyland, 2022). The literature is therefore organised according to its conceptual relevance rather than being treated as isolated sources of information. Through this organisation, the study identifies recurring ideas and instructional principles that can be associated with the four dimensions of the ARCS model. The analysis also considers how these motivational principles may be interpreted within the specific context of syntax acquisition, where learners are required to understand abstract linguistic structures, grammatical relationships, and hierarchical sentence organisation. Foundational linguistic perspectives are additionally considered where appropriate to establish the conceptual characteristics of syntactic structures and their organisation (Chomsky, 1981). By integrating literature on instructional design, second language motivation, engagement, and linguistic structure, the document analysis establishes a theoretical basis for identifying instructional strategies that may support learners' motivation towards syntax acquisition (Fang et al., 2024; Zhang and Hyland, 2022; Dörnyei, 2020; Keller, 2010).

The analysis of the selected documents is organised according to the four motivational dimensions of the ARCS Motivation Model. Attention serves as the first analytical category and focuses on instructional strategies that may stimulate learners' curiosity, maintain concentration, and encourage active participation during learning activities. Relevance represents the second category and is used to examine instructional practices that connect learning materials with learners' needs, goals, experiences, and meaningful language use. Confidence constitutes the third analytical category and focuses on strategies that may strengthen learners' beliefs in their ability to understand and successfully perform syntax-related learning tasks. Satisfaction forms the fourth category and examines instructional approaches that may provide learners with positive learning experiences, meaningful feedback, achievement, and a sense of progress. These four categories are grounded in Keller's (2010) motivational design framework and are supported by more recent systematic examination of the applications of ARCS in instructional design and educational contexts (Fang et al., 2024). During the document analysis, relevant concepts, instructional strategies, and pedagogical interventions identified from the literature are classified according to the ARCS component that they most closely represent. Where an instructional strategy relates to more than one motivational component, its potential contribution across the relevant dimensions is considered to develop a more comprehensive interpretation. This analytical process allows the study to move beyond merely describing existing literature by organising relevant findings within a coherent motivational framework. Furthermore, perspectives concerning learner engagement and second language motivation are incorporated to interpret how identified strategies may contribute to students' participation, persistence, and motivational responses during learning (Zhang and Hyland, 2022; Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). The categorisation process therefore provides a systematic structure for examining how different instructional interventions may address specific motivational needs associated with learning syntax (Fang et al., 2024; Keller, 2010).

Following the categorisation of the literature, the findings from the document analysis are synthesised to identify instructional strategies and interventions that demonstrate potential relevance to syntax acquisition. The synthesis focuses on establishing connections between theoretical principles of motivation and practical instructional approaches that may be implemented within ESL syntax lessons. Rather than evaluating the effectiveness of a particular intervention through experimental measurement, the study interprets existing literature to determine how instructional strategies may theoretically address motivational challenges experienced by learners. This approach is appropriate because motivation in second language learning involves multiple interacting dimensions and may be influenced by learners' goals, self-perceptions, learning experiences, and instructional environments (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). The interpretation therefore considers how ARCS-guided strategies may encourage sustained engagement while simultaneously supporting learners in dealing with the cognitive demands associated with syntax learning. Strategies identified within the literature are interpreted according to their potential to capture attention, establish meaningful relevance, strengthen confidence, or create satisfaction, consistent with the motivational design principles established by Keller (2010) and subsequently examined in contemporary ARCS research (Fang et al., 2024). Consideration is also given to the role of engagement because students' behavioural, cognitive, and affective responses to instructional activities may influence their

willingness to interact with learning materials and persist in challenging tasks (Zhang and Hyland, 2022). Through this synthesis, the study develops a conceptual understanding of how motivational instructional design may be adapted to the specific demands of syntax acquisition. The resulting interpretation provides the foundation for identifying pedagogical strategies that educators may consider when designing syntax lessons intended to promote motivation, engagement, persistence, and positive learning experiences among ESL learners (Fang et al., 2024; Zhang and Hyland, 2022; Dörnyei, 2020; Keller, 2010).

Results and Discussion

Attention-based instructional strategies in syntax learning

The document analysis suggests that instructional strategies aimed at capturing students' attention are frequently proposed as essential in enhancing motivation towards syntax acquisition. Within the ARCS Motivation Model, Attention serves as the initial motivational trigger, as learners must first become interested in the subject before deeper learning can occur (Keller, 2010). In syntax learning, visual representation strategies such as tree diagrams and phrase structure mapping are frequently proposed as effective tools for reducing abstraction and increasing learners' engagement. These visual tools help learners break down complex sentence structures into more comprehensible forms, thereby making syntactic relationships more observable and less intimidating, Research in instructional design and learning engagement supports the idea that visually supported learning environments can increase learner attention and reduce cognitive overload (Sailer and Homner, 2020). In addition, interactive instructional approaches such as collaborative sentence construction and gamified grammar tasks are widely associated with increased learner engagement. Gamification research shows that integrating game elements into learning environments can significantly improve attention, persistence, and behavioural engagement in academic tasks (Sailer and Homner, 2020). Conceptually, these strategies function as motivational entry points that encourage learners to actively participate in syntax analysis rather than passively receiving information. Overall, attention-based methods may serve as foundational interventions that initiate learner engagement in syntax learning by transforming abstract grammatical structures into interactive and visually meaningful experiences.

The findings from the document analysis further indicate that maintaining learners' attention requires instructional variation rather than dependence on a single teaching technique. Within the ARCS framework, attention is not limited to initially attracting learners' interest but also involves sustaining curiosity and engagement throughout the learning process (Fang et al., 2024; Keller, 2010). This consideration is particularly relevant to syntax because students are required to engage continuously with abstract relationships among words, phrases, clauses, and sentence structures. If these concepts are presented exclusively through conventional explanations or repetitive exercises, learners may find it difficult to maintain concentration and meaningful involvement. Therefore, instructional activities that incorporate variation, active participation, and meaningful challenges may provide stronger motivational conditions for syntax learning. Gamification represents one possible strategy because game-related elements can influence cognitive, motivational, and behavioural learning outcomes when they are appropriately integrated into educational activities (Sailer and Homner, 2020). In syntax

instruction, such principles may be applied through sentence-building challenges, identification activities, collaborative grammatical problem-solving, or structured competitions in which students analyse syntactic patterns. These activities can potentially shift learners from passive observation towards active interaction with syntactic concepts. Furthermore, instructional design guided by ARCS can encourage teachers to consider whether learning materials continuously stimulate curiosity and provide sufficient variation to maintain learners' attention (Fang et al., 2024; Keller, 2010). Attention-based instruction should therefore not be interpreted merely as making syntax lessons entertaining. Instead, its primary purpose is to direct and sustain learners' cognitive involvement with meaningful learning tasks. When attention strategies are closely connected to instructional objectives, they may create conditions in which learners become more willing to explore complex grammatical structures, identify syntactic relationships, and persist when encountering challenging sentence patterns. In this sense, attention functions as both an initial motivational condition and an ongoing instructional requirement for effective syntax acquisition.

The use of visual and interactive strategies can also be interpreted as a means of making the structural nature of syntax more accessible to learners. Traditional linguistic descriptions demonstrate that syntactic organisation involves hierarchical relationships rather than merely linear sequences of individual words (Chomsky, 1981). Consequently, learners may encounter difficulties when they attempt to understand complex structures through verbal explanation alone. Visual representations such as tree diagrams can provide a structured means of displaying relationships among syntactic constituents, while phrase structure mapping can help learners identify how smaller linguistic units combine to form larger grammatical structures. From an instructional perspective, such representations may support the Attention component of ARCS because they provide alternative ways for learners to interact with abstract information (Fang et al., 2024; Keller, 2010). The effectiveness of attention-oriented instruction can be strengthened further when visual materials are combined with activities requiring learners to manipulate, compare, classify, or reconstruct sentence structures. For example, students may compare alternative sentence structures, identify differences in syntactic organisation, or collaboratively construct diagrams representing grammatical relationships. Such activities potentially increase active participation by requiring learners to make decisions about the material rather than simply observe explanations. This emphasis on active involvement is also consistent with broader findings concerning learner engagement, where meaningful interaction with learning activities is an important element of sustained participation (Zhang and Hyland, 2022). Moreover, motivational perspectives emphasise that learner engagement is influenced by the ways individuals interpret and respond to their learning experiences (Dörnyei, 2020; Ushioda, 2020). Therefore, attention-oriented syntax instruction should combine visual clarity with opportunities for meaningful participation. Through this combination, abstract syntactic concepts may become more observable and approachable, potentially encouraging learners to sustain their attention while progressively developing their understanding of grammatical structures.

Relevance and confidence-based interventions in syntax learning

The analysis indicated that the relevance and confidence are central motivational dimensions in ARCS instructional design in syntax learning. According to Keller (2010), learners are more likely to sustain motivation when learning content is

perceived as meaningful and when they believe they can successfully complete learning tasks. Relevance-enhancing strategies in syntax instruction often involve contextualising grammar within authentic language use. Studies in second language acquisition emphasise that learned show higher engagement when grammatical knowledge is connected to real-world communication, academic writing, and meaningful discourse (Zhang and Hyland, 2022). This suggests that syntax instruction should move beyond rule memorisation and instead highlight functional language use to strengthen learner motivation. Confidence-building interventions are also widely emphasised in motivation research. Scaffolded instruction, where learners progress from simple to more complex syntactic structures, is identified as an effective method for reducing cognitive overload and supporting gradual skill development (Keller, 2010). Additionally, feedback has been shown to enhance learner engagement and support skill development in second language contexts by guiding learners through their errors and reinforcing successful performance (Zhang and Hyland, 2022). Together, these strategies suggest that relevance and confidence-based interventions may improve motivation by making syntax learning more meaningful, structured, and achievable.

The findings further suggest that relevance can be strengthened when learners are able to recognise a clear relationship between syntactic knowledge and their broader language-learning goals. The Relevance component of the ARCS framework emphasises the importance of connecting instructional content with learners' needs, goals, experiences, and perceived usefulness of learning (Fang et al., 2024; Keller, 2010). In syntax instruction, this connection may be established by demonstrating how grammatical structures operate within meaningful communicative and academic contexts rather than presenting syntax exclusively as an isolated system of rules. For example, learners may examine how sentence structures contribute to clarity in academic writing, how different syntactic arrangements influence meaning, or how grammatical choices affect the organisation of information within discourse. Such contextualisation may enable students to understand why syntactic knowledge is relevant to their broader development as language users. Engagement research also indicates that students' responses to instructional activities are connected to the ways in which they interact with meaningful learning processes and feedback (Zhang and Hyland, 2022). From a motivational perspective, learners may be more willing to invest sustained effort when they perceive learning tasks as personally or academically significant (Dörnyei, 2020; Ushioda, 2020). This is particularly important in syntax acquisition because the analytical nature of the subject may otherwise appear disconnected from everyday language use. Teachers can therefore enhance relevance by selecting authentic sentences, contextualised examples, academic texts, or communication-based activities that demonstrate the functional value of syntactic knowledge. These strategies may allow learners to see syntax not merely as a theoretical linguistic requirement but as knowledge that contributes to effective language production and comprehension. Consequently, relevance-based intervention provides an important motivational bridge between abstract syntactic analysis and learners' practical language-learning objectives, thereby supporting more purposeful participation in syntax lessons.

Confidence represents an equally important dimension because learners' willingness to participate in syntax activities may depend on whether they believe that successful performance is achievable. Within ARCS-based instructional design, confidence involves establishing appropriate expectations for success and creating learning

conditions in which students can recognise the relationship between their effort and achievement (Fang et al., 2024; Keller, 2010). In syntax learning, confidence may be challenged when learners are immediately exposed to highly complex sentences or are expected to analyse unfamiliar grammatical structures without sufficient instructional support. A more gradual approach can therefore involve sequencing activities from relatively accessible syntactic patterns towards increasingly complex structures. Such progression allows students to establish foundational knowledge before applying it to more demanding tasks. Feedback may complement this process by helping learners recognise errors, understand areas for improvement, and identify successful aspects of their performance. Research concerning student engagement with feedback demonstrates that learners' engagement with instructional feedback is a significant component of the learning process (Zhang and Hyland, 2022). Earlier work on teacher and automated feedback similarly highlights the importance of learner engagement with feedback in second language writing contexts (Zhang and Hyland, 2018). In syntax instruction, feedback can therefore be used not simply to indicate whether an answer is correct or incorrect, but to guide learners towards understanding the structural reasons underlying their performance. Motivation research also suggests that learners differ in the goals and self-guides that influence their motivated behaviour (Dörnyei, 2020; Papi et al., 2019). Consequently, confidence-building strategies should recognise differences in learners' starting points and motivational orientations. By combining gradual progression, achievable challenges, constructive feedback, and opportunities for successful performance, educators may create syntax learning experiences in which students develop stronger perceptions of competence and become more willing to approach increasingly complex grammatical tasks.

Satisfaction-oriented strategies and theoretical integration

The document analysis further suggests that satisfaction-oriented instructional strategies are essential for sustaining long-term motivation in syntax acquisition. Within the ARCS framework, Satisfaction refers to learners' positive feeling after completing learning tasks successfully, which reinforces continued engagement (Keller, 2010). Master-oriented activities such as sentence parsing, syntactic transformation exercises, and structured grammar problem-solving tasks are frequently proposed as strategies that enhance learner satisfaction. These tasks allow learners to apply syntactic knowledge in meaningful ways and observe tangible progress, reinforcing their sense of achievement. Motivational research in second language acquisition further supports the importance of satisfaction in sustaining engagement. Zoltan Dörnyei emphasises that sustained motivation is strongly linked to learners' internal experiences of success and competence rather than an external reward alone (Dörnyei, 2020). Similarly, Ema Ushioda highlights that learner motivation is socially and psychologically constructed, meaning that positive learning experiences significantly influence long-term engagement (Ushioda, 2020). From a cognitive perspective, syntax learning can also be supported by innate linguistic capacity as proposed in Noam Chomsky's Universal Grammar Theory, which suggests that learners possess an internalised ability to recognise grammatical structures (Chomsky, 1981). In addition, conceptual blending perspectives provide insights into how learners may integrate different linguistic and conceptual representations when constructing and interpreting meaning, offering a complementary cognitive perspective for understanding complex language structures (Fauconnier and Turner, 2002). However, the activation of this linguistic competence

may depend on motivational conditions that support sustained engagement. This highlights the complementary role of ARCS in bridging cognitive ability and actual learning performance. Overall, Satisfaction strategies may serve as reinforcement mechanisms that consolidate learning experiences and support long-term motivation in syntax acquisition. Within the ARCS framework, satisfaction is achieved when learners are able to recognise their progress and experience a sense of accomplishment after successfully completing syntactic tasks (Keller, 2010). In the context of syntax learning, this may occur when students are able to accurately construct tree diagrams, analyse sentence structures, or apply syntactic rules in meaningful language tasks. Such successful experiences can strengthen learners' self-perception in competence, which is closely linked to sustained motivation and willingness to engage in future learning activities (Dörnyei, 2020). Furthermore, repeated experiences of achievement may gradually reduce learners' anxiety towards syntax, transforming the subject from one perceived as difficult and abstract into one that is manageable and rewarding. This suggests that satisfaction does not merely function as an end result of learning, but also a motivational catalyst that encourages persistence, deeper engagement, and continuous improvement in syntax acquisition.

The analysis further indicates that satisfaction may be strengthened when learners receive clear evidence that their effort has resulted in meaningful improvement. Contemporary applications of the ARCS framework continue to position Satisfaction as an important component of motivational instructional design alongside Attention, Relevance, and Confidence (Fang et al., 2024; Keller, 2010). In syntax instruction, evidence of progress may emerge when learners successfully analyse sentence structures that they previously considered difficult, recognise grammatical relationships independently, or transfer previously learned principles to unfamiliar examples. These experiences can provide learners with meaningful indicators of achievement and potentially encourage continued participation. Feedback is particularly relevant to this process because it can help students recognise both successful performance and areas requiring further development. Research on learner engagement with feedback demonstrates that feedback is not simply information delivered to students but part of an interactive learning process in which learners interpret and respond to guidance (Zhang and Hyland, 2022). Accordingly, satisfaction-oriented syntax instruction may benefit from feedback that clearly acknowledges improvement while directing learners towards subsequent learning goals. This approach can prevent satisfaction from being interpreted solely in terms of external rewards. Instead, students may develop satisfaction from recognising their growing ability to understand and manipulate syntactic structures. Such an interpretation is compatible with motivational perspectives that recognise learners as active participants whose motivation develops through their interaction with learning environments and personal goals (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). Therefore, satisfaction-oriented strategies should provide opportunities for learners to recognise competence, reflect on progress, and apply acquired knowledge successfully. When learners experience these outcomes repeatedly, syntax instruction may become associated with attainable achievement rather than persistent difficulty, potentially strengthening their willingness to continue engaging with increasingly sophisticated syntactic concepts.

The theoretical integration of ARCS with perspectives on language motivation and linguistic structure also provides a broader explanation of why satisfaction may contribute to sustained syntax acquisition. Linguistic theory provides a framework for

understanding the structural organisation of language and the hierarchical relationships that characterise grammatical systems (Chomsky, 1981). However, knowledge of linguistic structure alone does not explain why individual learners choose to persist with demanding instructional activities. Motivational perspectives complement this cognitive dimension by highlighting the role of goals, experiences, self-perceptions, and learning contexts in shaping sustained engagement (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). ARCS provides an instructional bridge between these dimensions because it enables educators to organise motivational support around Attention, Relevance, Confidence, and Satisfaction (Fang et al., 2024; Keller, 2010). From this perspective, satisfaction may emerge after learners have initially attended to instructional material, recognised its relevance, developed confidence through manageable learning experiences, and successfully demonstrated their knowledge. The four ARCS components can therefore be viewed as interconnected rather than independent instructional elements. For syntax learners, satisfaction arising from successful sentence analysis or grammatical problem-solving may reinforce confidence, while increased confidence may encourage greater attention to subsequent learning activities. Similarly, recognition of the practical relevance of syntax may strengthen learners' willingness to persist until successful outcomes are achieved. This cyclical relationship illustrates how motivational support may contribute to continued engagement with cognitively demanding linguistic content. Consequently, the theoretical integration developed through the document analysis suggests that successful syntax instruction should address both the structural characteristics of language and the motivational conditions under which learners engage with those characteristics. Satisfaction thus functions not merely as the final stage of ARCS but as a reinforcing motivational experience capable of supporting subsequent cycles of attention, participation, confidence, and achievement.

Implications

The implications of this study extend to both pedagogical practice and theoretical development in second language instruction. From a pedagogical perspective, the findings suggest that integrating ARCS-guided instructional strategies into syntax teaching may provide educators with a more structured and learner-centred approach to increasing motivation. Since syntax is often perceived as abstract and cognitively demanding, the use of visual tools, scaffolded exercises, and contextualised sentence analysis may help reduce learners' cognitive load while improving engagement and comprehension. This aligns with recent findings that instructional scaffolding and motivational support can significantly enhance learner persistence and academic performance in complex language tasks (Papi et al., 2019). The study also implies that motivation should not be treated as a secondary element in syntax instruction, but rather as a central pedagogical consideration. Research in second language motivation has increasingly emphasised that learner engagement is shaped by dynamic interactions between instructional design, emotional experience, and perceived competence (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). By Embedding motivational principles into syntax lessons, educators may create more supportive learning environments that encourage sustained participation and reduced learners' anxiety towards grammatical complexity. From a theoretical perspective, this study reinforces the relevance of the ARCS Motivation Model as a practical framework for analysing and designing syntax instruction. When integrated with linguistic theories such as

Universal Grammar and cognitive processing frameworks, ARCS offers a multidimensional understanding of how motivation and cognitive readiness interact in syntax acquisition. This contributes to the growing body of literature that views second language learning as both a cognitive and motivational process (Ushioda, 2020). Future research may build upon this conceptual foundation by empirically examining the effectiveness of ARCS-based interventions in syntax classrooms actress difference learner populations and educational contexts.

From a pedagogical perspective, the findings provide several implications for the ways educators may organise syntax instruction around learners' motivational needs. Rather than treating Attention, Relevance, Confidence, and Satisfaction as isolated teaching techniques, educators may consider them as interconnected principles that can guide the overall design of syntax lessons (Fang et al., 2024; Keller, 2010). At the beginning of a lesson, visual representations, questions, interactive sentence examples, or problem-solving activities may be used to attract learners' attention. Once learners are engaged, educators can establish relevance by demonstrating how the syntactic structures being studied contribute to meaningful communication, academic writing, interpretation, or other language-learning goals. Confidence may then be developed by sequencing tasks according to difficulty and providing learners with sufficient guidance before requiring independent analysis. Finally, satisfaction may be promoted by allowing learners to recognise their progress, successfully apply syntactic knowledge, and receive constructive feedback. Such integration reflects the systematic nature of ARCS instructional design identified in contemporary research (Fang et al., 2024). It also acknowledges that student engagement is influenced by learners' interaction with instructional processes and feedback rather than being generated automatically through exposure to learning content (Zhang and Hyland, 2022). Furthermore, because second language learners may possess different goals and motivational self-guides, a single instructional strategy may not influence all students in the same manner (Dörnyei, 2020; Papi et al., 2019). Educators may therefore need to provide varied opportunities for participation and achievement while maintaining clear instructional objectives. The pedagogical implication is that motivational support should be deliberately embedded throughout syntax instruction rather than introduced only when students appear disengaged. Through systematic integration of ARCS principles, educators may create syntax learning environments that support sustained participation while maintaining attention to the linguistic knowledge and analytical skills required for successful language development.

The findings also have implications for future theoretical and empirical research on motivation in syntax acquisition. The present conceptual analysis demonstrates that ARCS provides a useful organisational framework for connecting motivational instructional design with the specific demands of syntax learning (Fang et al., 2024; Keller, 2010). Nevertheless, the relationships proposed through document analysis require empirical investigation before conclusions can be drawn regarding the effectiveness of particular ARCS-based interventions in actual syntax classrooms. Future studies could examine how individual ARCS components influence students' motivation, engagement, and learning outcomes across different educational settings and learner populations. For example, experimental or quasi-experimental research could compare conventional syntax instruction with lessons incorporating visual attention strategies, contextualised relevance activities, scaffolded confidence-building tasks, and satisfaction-oriented feedback. Researchers could also investigate whether

particular ARCS components have stronger motivational effects than others or whether the effectiveness of the framework depends on the combined implementation of all four dimensions. Such research would be particularly valuable because second language motivation involves individual differences in learners' goals, self-guides, experiences, and motivational behaviour (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). Further research may therefore examine whether learners with different motivational profiles respond differently to ARCS-guided syntax instruction. In addition, engagement with instructional feedback could be investigated as a mechanism through which confidence and satisfaction develop during syntax acquisition (Zhang and Hyland, 2022; Zhang and Hyland, 2018). Theoretical integration with linguistic perspectives may also be developed further to examine how motivational conditions interact with learners' processing and understanding of hierarchical grammatical structures (Chomsky, 1981). Such investigations could extend the conceptual contribution of the present study by providing empirical evidence regarding how motivational instructional design influences actual syntax learning processes. Ultimately, these directions may contribute towards a more integrated understanding of syntax acquisition in which linguistic, instructional, motivational, and learner-engagement perspectives are considered together.

Conclusion

Although studies specifically focusing on ARCS Motivational Model being incorporated in syntax acquisition remain limited, the broader literature on motivation and second language learning provides a strong conceptual basis for their application (Fang et al., 2024; Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019; Keller, 2010). Based on the document analysis, it can be concluded that instructional strategies aligned with the ARCS Motivation Model, particularly those emphasising Attention, Relevance, Confidence, and Satisfaction, may play an important role in enhancing students' motivation towards syntax learning (Fang et al., 2024; Keller, 2010). Visual tools such as tree diagrams, contextualised syntax tasks, scaffolded instruction, and mastery-based activities are conceptually positioned as practical interventions that may reduce the abstractness of syntax and improve learners' engagement (Fang et al., 2024; Zhang and Hyland, 2022; Sailer and Homner, 2020). When considered alongside linguistic theories such as Noam Chomsky's Universal Grammar and motivational perspectives from Zoltán Dörnyei and Ema Ushioda, the ARCS framework offers a meaningful method in designing more engaging syntax instruction (Dörnyei, 2020; Ushioda, 2020; Keller, 2010; Chomsky, 1981). Therefore, this study conceptually supports the potential of the ARCS Motivation Model instructional intervention in improving motivation and contributing to more effective syntax acquisition among English L2 learners (Fang et al., 2024; Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019; Keller, 2010).

Furthermore, the findings of this document analysis highlight the importance of viewing syntax acquisition not solely as a cognitive process but also as a learning experience that can be influenced by instructional design and motivational conditions. The ARCS Motivation Model provides a structured framework through which educators can systematically consider how learners' Attention, Relevance, Confidence, and Satisfaction may be supported throughout syntax instruction (Fang et al., 2024; Keller, 2010). Attention may be encouraged through visually engaging and interactive activities, while relevance may be strengthened by connecting syntactic concepts to

meaningful language use and learners' broader language-learning goals. Confidence may subsequently be developed through scaffolded learning activities that allow students to progress from relatively simple grammatical structures towards more complex syntactic analysis. Satisfaction may be reinforced when learners recognise their progress, successfully apply syntactic knowledge, and receive meaningful feedback concerning their performance. Such motivational considerations are particularly important because learner engagement can be influenced by how students interact with instructional activities and respond to feedback during the learning process (Zhang and Hyland, 2022). Moreover, second language motivation involves learners' goals, self-guides, experiences, and perceptions of their learning environment, suggesting that sustained engagement cannot be explained solely by linguistic competence (Dörnyei, 2020; Ushioda, 2020; Papi et al., 2019). Although linguistic perspectives provide an important theoretical foundation for understanding grammatical structures and the organisation of language (Chomsky, 1981), motivational instructional design may help learners remain actively engaged while developing their understanding of those structures. Consequently, the integration of ARCS principles into syntax instruction provides a promising conceptual direction for connecting linguistic knowledge with motivational support. Future empirical studies may further examine these proposed relationships by implementing ARCS-guided interventions in actual ESL syntax classrooms and evaluating their effects on learner motivation, engagement, confidence, satisfaction, and syntax learning outcomes across different learner populations and educational contexts (Fang et al., 2024; Dörnyei, 2020; Keller, 2010).

Acknowledgement

The researchers wish to express their sincere gratitude to Universiti Teknologi MARA (UiTM) Shah Alam Main Campus for their continuous support and guidance in completing this paper. Appreciation is also extended to all lecturers and individuals who have contributed directly or indirectly throughout the process of developing this research.

Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

REFERENCES

[1] Chomsky, N. (1981): Lectures on Government and Binding: The Pisa Lectures. – Foris Publications, Dordrecht, Netherlands 371p.
[2] Dörnyei, Z. (2020): Innovations and Challenges in Language Learning Motivation. – Routledge, London 186p.
[3] Fang, X., Ng, D.T.K., Leung, J.K.L., Xu, H. (2024): The applications of the ARCS model in instructional design, theoretical framework, and measurement tool: A systematic review of empirical studies. – Interactive Learning Environments 32(10): 5919-5946.
[4] Fauconnier, G., Turner, M. (2002): The Way We Think: Conceptual Blending and the Mind's Hidden Complexities. – Basic Books, New York 440p.

[5] Keller, J.M. (2010): Motivational Design for Learning and Performance: The ARCS Model Approach. – Springer, New York 323p.
[6] Papi, M., Bondarenko, A.V., Mansouri, S., Feng, L., Jiang, C. (2019): Rethinking L2 motivation research: The 2 × 2 model of L2 self-guides. – Studies in Second Language Acquisition 41(2): 337-361.
[7] Sailer, M., Homner, L. (2020): The gamification of learning: A meta-analysis. – Educational Psychology Review 32(1): 77-112.
[8] Ushioda, E. (2020): Language Learning Motivation: An Ethical Agenda for Research. – Oxford University Press 184p.
[9] Zhang, Z.V., Hyland, K. (2018): Student engagement with teacher and automated feedback on L2 writing. – Assessing Writing 36: 90-102.
[10] Zhang, Z., Hyland, K. (2022): Fostering student engagement with feedback: An integrated approach. – Assessing Writing 51: 15p.