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A Scoping Review of Metamotivation in English as a Second or Foreign Language

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Abstract

This study aimed to explore the scope and nature of metamotivation research in English as a foreign language (EFL)/ English as a second language (ESL) contexts, clarify how the construct has been conceptualized, identify methodological patterns, and highlight gaps and future directions. Included studies were peer-reviewed journal articles or review articles in English that treated metamotivation, metamotivational beliefs, or metamotivational knowledge as a central construct in EFL, ESL, second language acquisition (SLA), or closely related English language education contexts. Studies outside language education or focused primarily on adjacent constructs without explicit metamotivational framing were excluded. A systematic search of the Web of Science Core Collection was conducted in March 2026. From 82 records initially identified, 7 studies published between 2024 and 2026 met the inclusion criteria. Data were charted using a form covering bibliographic details, context, participants, design, instruments, theoretical framing, metamotivational constructs, key findings, limitations, and future directions. Recurring findings showed that teachers and learners often overvalued extrinsic rewards, learners demonstrated a promotion-oriented bias, and qualitative evidence suggested adaptive but experience-based regulation strategies.

Keywords: English as a foreign language, English as a second language, language learning motivation, metamotivation, scoping review

1. Introduction

Motivation has long been recognized as a central factor in second and foreign language learning, yet motivation alone does not explain how learners maintain effort when interest fluctuates, tasks become difficult, or progress feels slow. In response to this limitation, the concept of metamotivation has begun to attract attention in language education. Although there has been much research in language education focusing on motivational self-regulation,

the literature suggests that metamotivation and motivational self-regulation are closely related, but distinct constructs.

The clearest distinction in the research is this that motivational self-regulation usually refers to the processes or strategies learners use to manage their motivation so they can keep working on a task, while metamotivation refers to the meta-level awareness, monitoring, and knowledge that helps people recognize what kind of motivation they need and how to regulate it effectively (Fujita et al., 2024; Miele & Scholer, 2018; Miele et al., 2020). Thus, metamotivation can be defined as learners' ability to monitor and regulate their own motivational states to align them with the task demands (Scholer & Miele, 2016). Rather than viewing motivation as something learners simply possess, metamotivation frames learners as active agents who can recognize motivational changes and respond strategically to sustain engagement. Although this construct has stronger roots in general self-regulated learning theory than in applied linguistics, it provides a useful lens for understanding how language learners manage their motivation in challenging language-learning situations (Boekaerts, 1995; Al-Hoorie, 2024b). This distinction has important implications for research design: whereas motivational self-regulation studies typically focus on which strategies learners use to sustain effort, metamotivation research focuses on whether learners possess accurate knowledge of how motivation works and whether their regulatory choices are well-matched to the motivational demands of their tasks (Scholer et al., 2018). In applied linguistics, this means that a study reporting learner use of interest-enhancement or goal-setting strategies would fall within the motivational self-regulation domain, whereas a study examining whether learners correctly understand the conditions under which extrinsic rewards support or undermine intrinsic motivation would fall within the metamotivation domain.

2. Review of Literature

The learning of a language is a long-term and labour-intensive process that needs to be sustained over time and this makes metamotivation a crucial factor in language learning. Students who are aware of their metamotivation are more likely to cope with the fluctuations of interest, challenges, and pressures, and achieve greater learning success (Gu, 2026). Research shows that metamotivation strategies are effective in language learning. Motivation regulation, for instance, is positively related to academic performance, persistence and effort in various learning environments (Fong et al., 2024). Thus, metamotivation works together with other learning processes to improve language learning outcomes.

In EFL/ESL studies, metamotivation is a relatively new and still evolving concept. The scarce research that explicitly mentions it has conceptualised it in a number of different ways. Some conceptualise it as metamotivation beliefs, focusing on learners' understanding of the nature of motivation and its controllability (Al Sultan, 2024). Some conceptualise it as task-motivation fit, referring to learners' understanding of which type of motivational goal is most

appropriate for a given task (Al-Hoorie, 2024b). Others integrate it into models of self-regulated learning, where it emerges as metamotivational strategies, metamotivational factors, or motivational regulation, alongside metacognitive, affective and social factors (Habók et al., 2022; Luo et al., 2026; Pipattarasakul & Singhasiri, 2018; Truong, 2025).

This variety is reflected in research methods. Research has been conducted in a range of designs, contexts and units of analysis. Studies have included qualitative explorations of learners' beliefs (Al Sultan, 2024), task-based quantitative studies of motivational fit (Al-Hoorie, 2024), questionnaire studies relating metamotivational or motivational-regulation dimensions to language proficiency and strategy use (Habók et al., 2022; Luo et al., 2026; Truong, 2025) and studies that identify metamotivational strategy use during specific language tasks such as speaking (Pipattarasakul & Singhasiri, 2018). At the same time, reviews of self-regulated learning in EFL/ESL contexts indicate that research in this field is becoming more methodologically varied, but is still heavily focused on quantitative, questionnaire-based studies, suggesting that metamotivation may be emerging within a broader SRL tradition but has yet to be systematically mapped out as a field (Mazandarani, 2024).

For these reasons, a scoping review is needed. The current evidence suggests that metamotivation in EFL/ESL contexts is promising but scattered across different terminologies, theoretical traditions, and methodological choices. Without a clear synthesis, it remains difficult to determine what has actually been studied, how the construct has been understood, which populations and settings have been examined, and where the most important gaps lie. A scoping review is therefore well suited to map the current scope and nature of this literature, clarify how metamotivation has been conceptualized, identify recurring methodological patterns, and highlight neglected areas requiring further inquiry. Accordingly, this scoping review examines metamotivation research in EFL/ESL education through four guiding questions:

RQ1. What is the current scope and nature of metamotivation research in EFL/ESL contexts?
RQ2. How has metamotivation been conceptualized in this literature?
RQ3. What methodological patterns characterize the existing studies?
RQ4. What gaps and future directions emerge from the reviewed evidence?

3. Methodology

3.1. Research Design

This study employed a scoping review methodology to map the existing literature on metamotivation within EFL, ESL, second language acquisition (SLA), and related language education contexts. Scoping reviews are appropriate when the goal is to chart the breadth of evidence on a topic, identify key concepts, and clarify how a construct has been operationalized across a body of literature, particularly when the field is emerging and a systematic meta-

analysis is premature (Arksey & O'Malley, 2005; Levac et al., 2010; Munn et al., 2018). The present scoping review followed the methodological framework proposed by Arksey and O'Malley (2005) and subsequently refined by Levac et al. (2010), and it is reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018). No review protocol was developed or registered for this scoping review.

A systematic search was conducted in the Web of Science Core Collection, selected for its comprehensive indexing of peer-reviewed applied linguistics and language education journals and its support for Boolean proximity searching. The search was performed in March 2026. The decision to search a single database was deliberate. The Web of Science Core Collection offers the most comprehensive and consistent indexing of peer-reviewed applied linguistics and language education journals among major academic databases, and its advanced Boolean search capabilities are particularly suited to locating a precisely defined construct. While supplementing with additional databases such as Scopus might have retrieved additional records, prior scoping reviews of closely adjacent constructs have similarly relied principally on one or two databases without compromising the validity of their mapping exercise (Mazandarani, 2024; Trautner et al., 2025). Nevertheless, the single-database approach is acknowledged as a potential source of coverage bias, and its implications for the breadth of the review are discussed in Section 6. A two-component Boolean search string was constructed: one component capturing the focal construct of metamotivation and its orthographic variants, and a second component capturing the language learning domain. No date restrictions were imposed, as the aim was to retrieve all available evidence on a construct whose formal application to language learning is recent. The full search string is presented in Table 1. The decision to restrict the search string to explicit metamotivation terminology was also deliberate. Because metamotivation is a theoretically distinct construct from motivational self-regulation, broadening the search string would have retrieved a large body of studies on motivation regulation strategies, self-regulated learning, or self-efficacy that do not explicitly engage with metamotivational theory. This would have risked conflating constructs that the review was specifically designed to differentiate.

Table 1. *Database search string*

Component	Terms
Metamotivation	metamotivation OR "meta motivation" OR "meta-motivation"
Language Learning	"second language" OR "foreign language" OR "EFL" OR "ESL" OR "language learning" OR "SLA"

Boolean	[Component 1] AND [Component 2]

Note. *The search was executed in the Web of Science Core Collection using Topic field searching (title, abstract, author keywords, and Keywords Plus). Quotation marks indicate phrase searching; OR is used within components; AND joins the two components.*

The initial search returned 82 records. No additional records were retrieved from supplementary sources (e.g., hand-searching of key journals, reference list checking, or grey literature) at the identification stage, though reference lists of all included full-text articles were inspected during the eligibility phase to check for any relevant studies not captured by the database search. No additional records were identified through this process.

3.2. Study Selection

3.2.1. Eligibility criteria

The screening process followed a focused eligibility framework developed prior to screening and applied consistently across all stages. Records were evaluated against the inclusion and exclusion criteria presented in Table 2. In brief, records were included if they examined metamotivation, metamotivational beliefs, or metamotivational knowledge as a central construct within an EFL, ESL, SLA, foreign language learning, or closely related language education context. Records were excluded if they were situated outside language education (e.g., medical education, STEM, science education, general psychology, or workplace learning), or if they focused primarily on adjacent constructs such as general motivation, metacognition, self-regulated learning, self-efficacy, language assessment, or writing performance, without a clear and explicit emphasis on metamotivation.

Table 2. *Inclusion and exclusion criteria applied at each screening stage*

Dimension	Inclusion	Exclusion
Domain / Field	EFL, ESL, second language acquisition (SLA), foreign language learning, or closely related language education contexts	Medical education, STEM/science education, general psychology, workplace learning, or other non-language domains
Primary Construct	Metamotivation, metamotivational beliefs, or metamotivational	Adjacent constructs treated as primary focus without clear emphasis on

	knowledge treated as a central (rather than peripheral) construct; motivation regulation examined explicitly through a metamotivational lens	metamotivation: general motivation, metacognition, self-regulated learning (SRL), self-efficacy, language assessment, or writing performance, general motivational regulation
Document Type	Peer-reviewed journal articles and review articles	Conference papers, book chapters, dissertations, theses, editorials, letters, and non-peer-reviewed outputs
Language	English-language publications	Non-English-language publications (not applied as a filter but reflected in database search results)
Duplicates	Unique records retained after de-duplication	Duplicate records identified through title, author, and abstract comparison

Note. *Criteria were operationalized prior to screening and applied independently by the reviewer.*

The distinction between motivation regulation and metamotivation followed Scholer et al.'s (2018) definition of metamotivation as the deliberate monitoring and control of motivational states; studies treating motivation regulation as a behavioral or cognitive strategy repertoire without explicit metamotivational framing were classified as outside scope.

Screening proceeded in three sequential stages. In the first stage, the 82 identified records were filtered by document type. Records restricted to articles and reviews were retained, resulting in the exclusion of 20 records (e.g., conference proceedings, book chapters, editorials). This yielded 62 records. In the second stage, one duplicate record was identified through title, author, and abstract comparison and removed, leaving 61 unique records for abstract screening.

In the third stage, the abstracts of all 61 records were screened against the eligibility criteria. Fifty-two records were excluded at this stage. The most frequent reason for exclusion

was situatedness outside a language learning context (n = 38), followed by studies in which a language learning context was present but metamotivation was not the primary construct of investigation (n = 13; e.g., studies of motivation strategies, self-efficacy, or SRL in which metamotivation appeared only incidentally). One additional record was excluded because it addressed the teaching and learning of a language other than English (n = 1). This left nine records for full-text retrieval and review. At the full-text eligibility stage, nine articles were retrieved and read in their entirety. Two records were subsequently excluded because closer reading revealed that their primary focus was motivation regulation as a behavioral process rather than metamotivation as defined by Scholer et al. (2018) that is, the deliberate monitoring and control of motivational states with reference to knowledge of motivational dynamics and task–motivation fit. Specifically, Zhang and Dong (2022) and Luo et al. (2026) addressed motivational strategy use and regulation in language learning contexts but did not position metamotivation as a focal theoretical or empirical construct. Their exclusion was confirmed through consensus between the lead reviewer and a co-reviewer, who independently reviewed all nine full texts. This process resulted in a final sample of seven studies included in the scoping review. The complete record selection process is illustrated in Figure 1 in the format of the PRISMA-ScR flow diagram (Tricco et al., 2018). This boundary was maintained consistently to prevent the review from becoming a broader survey of motivational regulation in language learning (Fong et al., 2024; Trautner et al., 2025) and readers should interpret the review's scope with this constraint in mind.

Figure 1. *PRISMA-ScR flow diagram of the study selection process*

IDENTIFICATION		
Records identified via database search (Web of Science) (n = 82) Search string: (metamotivation OR "meta motivation" OR "meta-motivation") AND ("second language" OR "foreign language" OR EFL OR ESL OR "language learning" OR SLA)		
▼		
SCREENING		
Records after document-type filter (articles and reviews retained) (n = 62) Excluded: conference papers, book chapters, dissertations, editorials (n = 20)		• Non-article/review document types excluded (n = 20): conference papers, book chapters, dissertations, theses, editorials
Records after de-duplication (n = 61) Duplicate record removed (n = 1)		• Duplicate record (n = 1)
Records screened (abstract review) (n = 61)		• Not a language-learning / SLA / EFL / ESL context (n = 38) • Language-learning context but metamotivation not primary construct (n = 13) • Teaching/learning language other than English (n = 1) • Total excluded at abstract stage (n = 52)
▼		

ELIGIBILITY		
Full-text articles assessed for eligibility (n = 9)		• Zhang & Dong (2022): primary focus on motivation regulation rather than metamotivation as defined (n = 1) • Luo et al. (2026): primary focus on motivation regulation rather than metamotivation as defined (n = 1) • Total excluded at full-text stage (n = 2)
▼		
INCLUDED		
Studies included in the final scoping review (n = 7) Al-Hoorie (2024a, 2024b, 2025); Alrashood et al. (2026); Al Sultan (2024, 2025); Gu (2026)		

Note. PRISMA-ScR = Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (Tricco et al., 2018). Yellow boxes indicate excluded records with reasons. The green box indicates the final included studies.

3.3. Data Charting and Data Items

Data charting, the scoping review equivalent of data extraction, was conducted using a standardized charting form developed iteratively in accordance with Levac et al.'s (2010) recommendation that charting should be treated as an ongoing and reflexive process. For each included study, the following information was extracted: (a) bibliographic details (author, year, journal, and country of study); (b) research design and methodology; (c) sample characteristics (participant role, n, gender composition, educational level, and language learning context); (d) data collection instruments and analytical procedures; (e) theoretical and conceptual framework(s) employed; (f) metamotivational constructs operationalized (e.g., metamotivational knowledge, monitoring, control, misbeliefs, task–motivation fit); (g) key findings relevant to each research question; and (h) stated limitations and directions for future research.

Charting was carried out by the lead reviewer. To enhance accuracy and confirmability, a second reviewer independently charted two of the seven studies (approximately 29%), and discrepancies were resolved through discussion until consensus was reached. No quantitative synthesis (e.g., meta-analysis) was conducted, consistent with the interpretive and mapping aims of scoping review methodology (Arksey & O'Malley, 2005; Munn et al., 2018).

4. Findings

This section presents findings organized around the four research questions that guided this scoping review. Seven empirical and conceptual studies published between 2024 and 2026 were analyzed to characterize the scope, conceptualization, methodology, and identified gaps within metamotivation research in EFL and ESL contexts. An overview of all included studies is presented in Table 3.

Table 3. *Overview of included studies (n = 7)*

Citation	Journal	Country	Design	Participants	Context	Key Constructs
Al-Hoorie (2024a)	System	Saudi Arabia	Quantitative	130 teachers; 252 students	EFL university	Undermining effect; extrinsic vs. intrinsic motivation
Al-Hoorie (2024b)	Porta Linguarum	Saudi Arabia	Quantitative	311 EFL learners	EFL university	Task–motivation fit; regulatory focus (promotion/prevention)
Al-Hoorie (2025)	Language Learning Journal	Saudi Arabia	Quantitative	316 EFL learners	EFL university	Task reward structures; SDT reward typology
Alrashood et al. (2026)	Int'l J. Applied Linguistics	Saudi Arabia	Qualitative	20 female teachers	Intermediate school (EFL)	Teacher beliefs; extrinsic incentives; SDT; undermining effect
Al Sultan (2024)	Forum for Linguistic Studies	Saudi Arabia	Qualitative	57 female EFL students	EFL university	Intrinsic/extrinsic motivation; self-efficacy; growth mindset
Al Sultan (2025)	J. Language Teaching & Research	Saudi Arabia	Qualitative	115 female EFL learners	EFL university	Metamotivational strategies; promotion/prevention orientations
Gu (2026)	Int'l J. Applied Linguistics	China	Theoretical/Conceptual	N/A (integrative review)	Language learning (broad)	DMCs; metamotivation; SRL; task–motivation fit

Note. *SDT = Self-Determination Theory; SRL = Self-Regulated Learning; DMC = Directed Motivational Current.*

4.1. Research Question 1: Scope and Nature of Metamotivation Research in EFL/ESL Contexts

The seven studies reviewed provide a narrow yet expanding body of scholarship (Table 3). All empirical studies were conducted in Saudi Arabia, which shows the region's emerging role as a significant site of applied linguistics research on metamotivation mainly with the help of Al-

Hoorie (2024a; 2024b; 2025) contributing with three studies to our scoping review. The single exception to this was Gu (2026), whose conceptual integrative review was conducted with a Chinese university affiliation yet drew on language learning evidence broadly, including Saudi contexts. Publication venues were diverse, including System, the International Journal of Applied Linguistics (two studies), the Language Learning Journal, Porta Linguarum, the Journal of Language Teaching and Research, and the Forum for Linguistic Studies, which indicates that metamotivation construct is attracting editorial or reader interest across both established and emerging applied linguistics outlets.

Participant profiles varied considerably in terms of role (students vs. teachers), gender (predominantly female, especially in qualitative studies), and educational level (university foundation year through postgraduate). Sample sizes ranged from 20 teachers in the smallest qualitative study (Alrashood et al., 2026) to 382 participants in the largest quantitative study (Al-Hoorie, 2024a). As the study of Gu (2026) was conceptual, it had no participants. Thematically, the literature is dominated by two focal concerns: (a) metamotivational beliefs about the role of extrinsic rewards on intrinsic motivation (Al-Hoorie, 2024a, 2025; Alrashood et al., 2026), and (b) awareness of task–motivation fit and regulatory orientation (Al-Hoorie, 2024b; Al Sultan, 2025; Gu, 2026). A third, smaller strand examines students' phenomenological understandings of motivation itself as a form of metamotivational knowledge (Al Sultan, 2024).

4.2. Research Question 2: Conceptualization of Metamotivation in the Literature

Across all seven studies, metamotivation was consistently grounded on the studies of (Miele & Scholer, 2018; Scholer & Miele, 2016) and anchored to Scholer et al.'s (2018, p. 437–438) foundational definition: "the processes by which individuals monitor and control their motivational states in order to achieve their goals." Beyond this shared starting point, however, the studies operationalized the construct in notably different ways.

Self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2017) served as the primary motivational framework in six of the seven studies, with the undermining effect of extrinsic rewards on intrinsic motivation functioning as a central empirical referent. Cognitive Evaluation Theory (CET), as one SDT mini-theory, was explicitly invoked by Al-Hoorie (2024a, 2025) to explain how reward contingencies affect the functional significance learners attach to external incentives. Regulatory focus theory (Higgins, 1997; 2000) was drawn upon in two quantitative studies (Al-Hoorie, 2024b; Al Sultan, 2025) to distinguish between promotion-oriented (eager, gain-focused) and prevention-oriented (vigilant, loss-focused) motivational states, with the construct of task–motivation fit emerging as the organizing principle for evaluating metamotivational accuracy.

A summary of the conceptual landscape across studies is provided in Table 4, and the overarching structure of metamotivational constructs identified in the review is illustrated in Table 5.

Table 4. *Conceptualization of Metamotivation Across Studies*

Citation	Theoretical Anchors	Metamotivational Constructs Addressed	Overarching Framework(s)	Analytical Approach
Al-Hoorie (2024a)	Scholer et al. (2018); Miele et al. (2020)	Metamotivational misbeliefs; undermining effect; extrinsic vs. intrinsic motivation	Self-determination theory (SDT)	Quantitative prediction task; Chi-square
Al-Hoorie (2024b)	Scholer & Miele (2016); Nguyen et al. (2022)	Task–motivation fit; promotion vs. prevention orientations; overgeneralization bias	Regulatory focus theory; SDT	Within-subjects survey; ANOVA
Al-Hoorie (2025)	Miele et al. (2020); Scholer et al. (2018)	Metamotivational knowledge of reward types; task-motivation fit; SDT reward typology	SDT; Cognitive Evaluation Theory (CET)	Scenario-based survey; Friedman/Wilcoxon tests
Alrashood et al. (2026)	Scholer et al. (2018); Miele et al. (2020)	Metamotivational misalignment; teacher beliefs about extrinsic incentives; cognitive biases	SDT; metamotivation framework	Semi-structured interviews; magnitude coding
Al Sultan (2024)	Scholer et al. (2018); Miele & Scholer (2018)	Metamotivational beliefs as reflections of intrinsic value, self-efficacy, self-control; growth mindset	SDT; metamotivational approach	Thematic analysis of reflective writing
Al Sultan (2025)	Miele et al. (2020); Scholer & Miele (2016)	Metamotivational knowledge (self, task, strategy); promotion–prevention imbalance; motivational flexibility	SDT; regulatory focus; metamotivation framework	Thematic analysis (ATLAS.ti); 258 initial codes
Gu (2026)	Miele & Scholer (2018); Fujita et al.	Metamotivation as internal orienting/monitoring mechanism; task–	DMC theory; metamotivation; SRL	Conceptual integrative review

(2024); Scholer et al. (2018)	motivation fit; knowledge–monitoring–control triad	(Zimmerman, 2000)

Note. *SDT = Self-determination theory; CET = Cognitive evaluation theory; SRL = Self-regulated learning; DMC = Directed motivational current. Theoretical anchors reflect primary sources cited in each study.*

Table 5. *Metamotivational Constructs Identified Across the Seven Reviewed Studies*

Conceptual Domain	Key Elements Identified Across Studies
Metamotivational Knowledge	• Self-knowledge (recognition of motivational states; Al-Hoorie, 2024b; Al Sultan, 2024) • Task knowledge (promotion vs. prevention task demands; Al-Hoorie, 2024b; Gu, 2026) • Strategy knowledge (self-talk, goal orientation, interest regulation; Al Sultan, 2025)
Metamotivational Monitoring	• Assessment of current motivational state against task demands (Gu, 2026) • Awareness of misfit signals (boredom, anxiety, procrastination; Al Sultan, 2024, 2025) • Situational awareness of fluctuating states (Al Sultan, 2024, 2025)
Metamotivational Control / Regulation	• Promotion-oriented strategies dominant across studies (Al-Hoorie, 2024b; Al Sultan, 2025) • Prevention-oriented strategies underused (Al Sultan, 2025; Gu, 2026) • External reward reliance as default regulatory tool (Al-Hoorie, 2024a, 2025; Alrashood et al., 2026)
Misbeliefs & Misalignment	• Extrinsic rewards widely believed to enhance intrinsic motivation (Al-Hoorie, 2024a; Alrashood et al., 2026) • Competition and performance-contingent rewards favoured despite SDT evidence (Al-Hoorie, 2025) • Overgeneralization bias toward promotion focus (Al-Hoorie, 2024b; Al Sultan, 2025)

Note. *Bullets represent recurring findings across two or more studies. Single-study contributions (Gu, 2026) are noted parenthetically.*

4.3. Research Question 3: Methodological Patterns in the Existing Literature

The methodological landscape of the seven studies reflects an emerging and methodologically heterogeneous field. Three broad design categories were represented: quantitative (n=3, 43%), qualitative (n=3, 43%), and conceptual or theoretical review (n = 1, 14%). The distribution of designs, instruments, and analytical strategies is summarized in Table 6, and Table 7 provides a concise visual overview of methodological frequency.

4.3.1. Quantitative approaches

Al-Hoorie (2024a, 2024b, 2025) used scenario-based, self-report measures in Arabic to reduce language barriers. In these three studies, the same paradigm was adopted: participants read descriptions of real or hypothetical experimental scenarios and were asked to make predictions or express their preferences for a variety of motivational strategies or reward structures. Quantitative analyses involved chi-square tests, mixed-design ANOVAs, Friedman tests, Wilcoxon signed-rank tests and Mann-Whitney U tests. Al-Hoorie (2024b) used a within-subjects approach to compare preferences for promotion- and prevention-oriented tasks in independent and interdependent contexts, utilising a counterbalanced order of presentation. Al-Hoorie (2024a) was the only study that recruited both teachers and students, allowing for role comparisons.

4.3.2. Qualitative approaches

Thematic analysis (Braun & Clarke, 2006) was the main analysis method used in three qualitative studies. Al Sultan (2024) examined 57 written responses to one open-ended reflective prompt, and Al Sultan (2025) examined 115 responses to three prompts, with manual coding complemented by the use of the computer software ATLAS.ti and 258 initial codes. Alrashood et al. (2026) conducted semi-structured, audio-recorded interviews of about 30 minutes duration, using an experimental vignette (the Murayama et al., 2010, paradigm) to elicit beliefs. Each of the three qualitative studies involved only Saudis and all-female samples, reflecting gender segregation in Saudi higher and intermediate education. Coding in all three studies included multiple coders and debriefing sessions to improve credibility.

4.3.3. Conceptual approach

Gu (2026) used a theory-driven integrative review approach (Cooper, 2017; Hart, 2018) with searches in Web of Science and Scopus with a set of keywords. The sources were purposefully and conceptually selected, favouring studies that focused explicitly on the mechanisms of sustaining, breaking and repairing intensive motivation. The product of this synthesis was not a systematic review in the sense of meta-analysis; rather, it was intended to propose a new model, the metamotivation-embedded DMC model, by connecting gaps between three literatures.

Table 6. *Methodological Characteristics of Included Studies*

Citation	Design	Instrument(s)	Data Source	Sample	Analysis
Al-Hoorie (2024a)	Quantitative	Prediction task + Likert confidence scale	Survey (Arabic)	130 teachers; 252 students	Chi-square
Al-Hoorie (2024b)	Quantitative	Scenario-based incentive preference scale (24 items)	Survey (Arabic)	311 learners	Mixed ANOVA; one-sample t-tests
Al-Hoorie (2025)	Quantitative	Scenario-based attitude/effect/prevalence scale + open-ended	Survey (Arabic)	316 learners	Friedman; Wilcoxon; Mann–Whitney U
Alrashood et al. (2026)	Qualitative	Semi-structured interviews (~30 min); vignette stimulus	Interview (Arabic)	20 female teachers	Descriptive coding; magnitude coding
Al Sultan (2024)	Qualitative	Single open-ended reflective task on Google Classroom	Written response (English)	57 female students	Thematic analysis (6 steps; Braun & Clarke, 2006)
Al Sultan (2025)	Qualitative	Three open-ended reflective tasks on Google Classroom	Written response (English)	115 female students	Thematic analysis (ATLAS.ti); 258 codes
Gu (2026)	Conceptual review	Web of Science & Scopus literature search	N/A	N/A	Selective integrative synthesis

Note. *Limitations column omitted here for space; see Table 8 for stated limitations per study.*

Table 7. *Distribution of Research Designs Across Included Studies (N = 7)*

Research Design	n (%)	Citations	Data Collection Methods
Quantitative	3 (43%)	Al-Hoorie (2024a, 2024b, 2025)	Scenario-based surveys; prediction tasks; Likert scales

Qualitative	3 (43%)	Alrashood et al. (2026); Al Sultan (2024, 2025)	Thematic analysis; semi-structured interviews; reflective writing
Conceptual/Review	1 (14%)	Gu (2026)	Integrative literature synthesis
Total	7 (100%)	—	—

Note. *Percentages may not sum to 100% due to rounding. No mixed-methods studies were identified in this review.*

A few methodological observations are in order. First, all six empirical studies were conducted in Saudi Arabia, which limits generalizability and the ability to compare across cultures at present. Second, all qualitative studies featured only female participants, which while reflective of the gender-segregated nature of institutions, precludes understanding of potential differences in male learners' metamotivational beliefs and strategies. Third, all self-report studies acknowledged the potential for social desirability and limited introspective awareness, with none triangulating self-reported beliefs with direct observation of behaviour or other objective performance indicators. Fourth, all studies were cross-sectional; none gathered data on changes in metamotivational beliefs over time; thus, no inferences can be made about developmental patterns or the persistence of identified misbeliefs. Fifth, although three studies explicitly discussed measurement issues (Al-Hoorie, 2024a, 2024b, 2025), no study used implicit measures or behavioral indicators to capture metamotivational processes that may be unconscious.

4.4. Research Question 4: Gaps and Future Directions Emerging From the Evidence

Despite the contributions of each included study, the reviewed literature collectively reveals several substantive gaps that constrain current knowledge. These are organized below under five cross-cutting themes, with the specific gaps and directions proposed by each study presented in Table 8.

4.4.1. Geographic and cultural concentration

The near-exclusive concentration of empirical work in Saudi Arabia constitutes the most pervasive limitation in the current literature. While this concentration reflects the productivity of researchers in that region, it means that the generalizability of findings particularly those concerning metamotivational misbeliefs about extrinsic rewards and promotion-orientation bias cannot be assessed across different educational cultures, societal reward structures, or language learning goals. Multiple authors explicitly called for cross-cultural replications (Al-Hoorie, 2024a, 2024b, 2025; Alrashood et al., 2026), and Gu's (2026) conceptual review

deliberately drew on broader international scholarship on DMCs as a counterweight to this concentration.

4.4.2. Gender representativeness

All three qualitative studies sampled exclusively from female populations, and in Al-Hoorie (2024b), the female subsample was considerably smaller than the male subsample (60 vs. 251). Al Sultan (2024, 2025) and Alrashood et al. (2026) acknowledged this limitation explicitly. The available quantitative data suggest that gender moderates metamotivational preferences specifically, female learners display a more pronounced overgeneralization bias toward promotion-focused incentive structures (Al-Hoorie, 2024b; Al Sultan, 2025) yet the qualitative evidence, which might illuminate the experiential and cultural underpinnings of these differences, currently comes entirely from female perspectives.

4.4.3. Absence of longitudinal and behavioral data

No study in the reviewed set followed participants over time, meaning that questions about whether metamotivational misbeliefs are stable or amenable to change through education and experience remain unanswered. Similarly, no study linked self-reported metamotivational beliefs to actual motivational behavior, language learning outcomes, or academic achievement. This gap is particularly significant given Gu's (2026) theoretical argument that metamotivational competence should predict the sustainability of intensive motivational episodes, and given the preliminary evidence from non-language contexts (Ross et al., 2023) showing that accurate metamotivational beliefs predict academic achievement. The absence of intervention studies is equally notable: no study in the set tested whether targeted instruction in metamotivational awareness led to shifts in beliefs or improvements in motivation regulation.

4.4.4. Methodological Limitations Within Designs

Within the quantitative studies, all instruments were self-report surveys administered in a single session. Although scenario-based paradigms have been validated in general psychology (Scholer & Miele, 2016), their ecological validity in EFL/ESL contexts has not been established, and no study checked whether self-reported beliefs corresponded to choices made in actual classroom tasks. Within the qualitative studies, the reflective writing tasks used by Al Sultan (2024, 2025) may have been influenced by course content on motivation, potentially producing socially desirable or academically primed responses that do not reflect naturalistic metamotivational processing. Alrashood et al.'s (2026) use of a one-off interview vignette, while innovative, captures a snapshot of belief that may differ from the reasoning teachers apply in their daily practice. Across all studies, there is an absence of observational data, think-aloud protocols, experience-sampling methodologies, or implicit measures that might access metamotivational processes operating below conscious awareness.

4.4.5. Theoretical Gaps and Conceptual Underdevelopment

While Gu's (2026) integrative review proposed the most ambitious theoretical extension of the metamotivation construct, embedding it within DMC theory and self-regulated learning, this model remains empirically untested. Specific theoretical gaps include: (a) the mechanisms by which metamotivational monitoring detects task–motivation misfit in real-time during language learning tasks; (b) the relationship between metamotivational beliefs and autonomous versus controlled motivational regulation in SDT terms; (c) the role of teacher metamotivational beliefs in shaping the motivational climate experienced by students; and (d) the applicability of the metamotivation framework to multilingual learning contexts where multiple languages compete for motivational resources. Additionally, the interface between metamotivation and other self-regulatory constructs like grit, growth mindset, and emotional regulation, has not been examined in EFL/ESL research.

Table 8. *Identified gaps and future research directions across studies*

Citation	Key Limitations Identified	Sample/Context Restrictions	Future Directions Proposed
Al-Hoorie (2024a)	Single-country sample (Saudi Arabia); no gender analysis of metamotivational change	All EFL; no qualitative follow-up on belief rationales	Longitudinal studies; interventions targeting metamotivational misbeliefs in teacher education; cross-cultural comparisons
Al-Hoorie (2024b)	Predominantly male sample (251/311); single institution; indirect belief measurement	EFL university context only	Gender differences in metamotivational beliefs; assessment beyond scenario tasks; multilingual contexts
Al-Hoorie (2025)	No behavioral indicators; no classroom observations; single institution	EFL higher education; Saudi Arabia	Qualitative interviews on belief rationales; examining age and SES as moderators; cross-cultural belief comparisons
Alrashood et al. (2026)	All-female sample; single city; stated beliefs vs. actual practice not triangulated	Saudi EFL intermediate schools	Diverse samples (male teachers; multiple regions); classroom observation

			studies; longitudinal professional development research
Al Sultan (2024)	Single question; SLA course context may have biased responses; 57-participant sample	Saudi EFL female university students	Multi-method designs; interviews; pre/post measures; diverse educational levels and proficiency groups
Al Sultan (2025)	Self-report only; ungraded reflective tasks; no behavioral observation	Saudi female EFL university students	Mixed-methods; longitudinal designs; observational data; studies across genders and national contexts
Gu (2026)	Conceptual only; no primary data; selective (non-systematic) literature synthesis	Language learning broadly	Empirical DMC studies with metamotivational measures; experience-sampling studies; pedagogical intervention studies on metamotivational competence; multilingual contexts

Note. *Limitations and future directions are drawn from authors' own statements in each study. SES = Socioeconomic status; SDT = Self-determination theory; DMC = Directed motivational current.*

The studies reviewed reveal a narrow yet growing body of scholarship on metamotivation in English language teaching contexts that, as of 2024–2026, is geographically concentrated in Saudi Arabia, methodologically split between quantitative scenario-based surveys and qualitative thematic analyses, and theoretically anchored in self-determination theory. Three convergent substantive findings emerge across the studies: (a) both teachers and learners hold systematic metamotivational misbeliefs that overestimate the motivational value of extrinsic rewards and underestimate the sustaining power of intrinsic motivation; (b) learners display an overgeneralization bias toward promotion-oriented strategies even when prevention-focused orientations are theoretically more appropriate for the task at hand; and (c) despite these misbeliefs at the declarative level, learners' phenomenological accounts of motivation reveal a sophisticated, adaptive, and context-sensitive repertoire of self-regulation strategies.

These findings are constrained by several persistent methodological limitations like geographic homogeneity, gender imbalance in qualitative samples, cross-sectional designs, and an absence of behavioral or longitudinal data that represent the primary priorities for future research in this domain.

5. Conclusion and Suggestions

This scoping review revealed that metamotivation in EFL/ESL is a small but emerging area of research that is starting to coalesce around a meta-regulatory view of motivation. The seven studies included in this review show that the field is heavily centred in Saudi Arabia, roughly equally divided between quantitative and qualitative studies, and consistently focused on learners' and teachers' beliefs about reward, task demands, and motivational regulation. More significantly, the reviewed studies indicate that metamotivation is emerging as a valuable construct to explain not only whether learners are motivated, but how they perceive, monitor, and try to regulate their motivational states when they learn languages.

First, the review suggests that the EFL/ESL literature has taken up a definition of metamotivation that is largely in line with that used in educational psychology. Across the broader literature, metamotivation is defined in terms of learners' knowledge about motivation, monitoring of motivational states, and ability to regulate motivational states in response to task demands and goals (Miele & Scholer, 2018; Miele et al., 2020). This is reflected in the language-learning studies, but with some different emphases. Al Sultan's qualitative studies focus on metamotivation mainly as learners' self-knowledge, self-reported regulation strategies, and subjective awareness of motivational change (Al Sultan, 2024; Al Sultan, 2025), while Al-Hoorie's studies emphasise task-motivation fit and the accuracy of learners' metamotivational beliefs (Al-Hoorie, 2024b). These studies suggest that metamotivation in EFL/ESL is already being conceptualised as a multifaceted construct rather than simply an alternative term for motivation or motivational self-regulation.

A second significant pattern is the recurrent evidence of metamotivational misbeliefs, particularly about the role of extrinsic rewards in motivation. The studies investigating the undermining effect and reward structures (Al-Hoorie, 2024a, 2025; Alrashood et al., 2026) collectively suggest that both students and teachers overestimate the benefits of extrinsic rewards and competition in promoting motivation. This finding is consistent with the general metamotivation research literature showing that people hold only partially correct beliefs about the adaptive value of intrinsic versus extrinsic motivation, and that more accurate metamotivational beliefs predict improved choices and performance (Hubley et al., 2024; Ross et al., 2023).

Third, there is a tendency for learners to favour promotion-oriented motivational regulation, even when a task might require vigilance for prevention. This is most evident in the included task–motivation fit study (Al-Hoorie, 2024b) and qualitative study of Saudi women

learners' regulation strategies (Al Sultan, 2025), which show a clear preference for promotion and less awareness of prevention-based regulation strategies. Gu's conceptual contribution pushes this point further by arguing that metamotivation should be understood as an internal orienting and monitoring mechanism capable of sustaining or repairing intensive motivational trajectories, especially when task demands shift over time.

What distinguishes metamotivation from the self-regulated learning frameworks already established in EFL/ESL research is not simply its level of analysis but its explanatory focus. Standard SRL models describe the processes by which learners plan, monitor, and evaluate their learning, with motivation treated as one among several affective or cognitive inputs. Metamotivation, by contrast, makes the accuracy of motivational beliefs itself the central object of investigation: not merely whether learners are motivated, but whether their theories about motivation are correct, and whether their regulatory choices are well-calibrated to the demands of the task at hand (Miele & Scholer, 2018; Scholer et al., 2018). This shift in focus opens genuinely new empirical questions for language education, such as whether misconceptions about reward undermine pedagogically intended motivational structures, whether learners who hold more accurate metamotivational beliefs sustain effort more effectively across the long arc of language learning, and whether metamotivational competence is teachable. These are questions that SRL frameworks, as currently applied in EFL/ESL research, do not directly address, and they constitute the core of metamotivation's distinctive explanatory contribution to applied linguistics.

Beyond portraying learners as being reflective, situationally aware, and capable of exhibiting a range of strategies for regulating their motivation, the qualitative studies in the current data set show far less evidence for this variable than the quantitative studies. For instance, while Al Sultan (2024) found many learners believed motivation was dynamic, personal and controllable, not fixed. The gap identified here may be a result of the fact that a learner's statement of their metamotivation beliefs may not align with their situationally dependent metamotivation practice. The literature on metamotivation implies that there are different elements to the development of metamotivation, including developing knowledge of one's learning (self-knowledge), keeping a record of one's learning (monitoring) and choosing strategies for learning (strategy selection) (Norouzi et al., 2023). This finding suggests that when EFL/ESL researchers undertake new research, they need to be careful not to equate self-reported beliefs, metacognition and motivational behaviour.

The seven studies also show a clear methodological maturity of the field. The quantitative studies use scenario-based self-report measures, the qualitative studies use reflective writing or interviews, and the sole review study is conceptual. These features are not unique to metamotivation in language learning; they are similar to those of related literatures. A recent review of the methods used to study self-regulated learning in EFL/ESL contexts found that

quantitative designs, questionnaires, and university samples are heavily favoured (Mazandarani, 2024), whereas a recent evidence-and-gap map study of motivation regulation found most studies in the broader field are similarly cross-sectional, self-report, and university-based (Trautner et al., 2025). But the identified methodological limitations are still severe: all empirical studies were in Saudi Arabia, all qualitative samples were female, none was longitudinal, and none connected metamotivation beliefs to classroom behavior or objective performance. The critical implication of these converging methodological weaknesses is that the current evidence base does not yet support generalizable claims about metamotivational misbeliefs: the documented patterns may reflect features of Saudi EFL culture, institutional reward structures, or the specific sampling and elicitation methods employed, rather than universal properties of language learners' metamotivational knowledge. Future research must therefore prioritize contextual diversity, behavioral validation, and longitudinal design before broad pedagogical recommendations can be made with confidence.

The review has significant pedagogical implications. If the reviewed studies are right in assuming that teachers and students may hold incorrect beliefs about rewards, task fit, and motivational strategies, then metamotivation should be taught and developed, rather than taken for granted. This is especially true in the EFL/ESL context, where motivation can be variable across skills, tasks, and over extended learning periods. The wider language-learning literature indicates motivational beliefs, mastery goals, and self-efficacy are linked with self-regulated learning and language learning outcomes (Teng, 2024; Wang & Bai, 2023). There is also evidence that teaching self-regulated language learning can enhance motivation, strategic knowledge, and language achievement (Yang et al., 2025). In this context, the studies in this review suggest that future pedagogical research should explore whether we can teach learners to identify motivational misfit, reward types, and more task-appropriate motivational strategies.

This scoping review identified the current state of the field on metamotivation in EFL/ESL contexts and revealed an emerging but still fledgling field that is gaining conceptual traction, but is currently lacking empirical depth and ripe for theoretical and methodological expansion. Across the seven studies examined, metamotivation was uniformly defined as a higher-order process that refers to learners' and teachers' awareness, monitoring, and regulation of motivational states, but was operationalized in different ways that focused on reward-related misbeliefs, task-motivation fit, self-knowledge, and strategy knowledge. The review also identified a number of recurrent themes: learners and teachers seem to entertain systematic metamotivational misbeliefs about the effectiveness of extrinsic rewards, learners demonstrate a strong preference for promotion-focused regulation, and qualitative evidence indicates that learners have a sophisticated, experiential repertoire of motivational self-regulation strategies. Overall, these findings suggest that metamotivation has considerable

explanatory potential for applied linguistics because it provides a process-sensitive perspective on how motivation is managed, maintained and refocused in language learning, bringing general metamotivation theory to EFL/ESL education.

However, the review also indicates that metamotivation research in language education has not yet matured to the point that generalisation is warranted. The evidence is geographically limited to Saudi Arabia, largely self-reported and cross-sectional, and isolated from behavioral, longitudinal, and intervention evidence. This leaves many questions unanswered about how metamotivation monitoring works in action, the extent to which reported beliefs predict learning behaviours and outcomes, and whether metamotivation awareness can be explicitly taught. As such, research needs to advance beyond exploratory and proof-of-concept studies to more cumulative designs that involve conceptual rigour, contextual diversity and outcome-relevant measurement. In turn, metamotivation can be more fully developed not merely as a borrowed construct from educational psychology, but as a well-established and pedagogically relevant construct for explaining self-regulated motivation in EFL/ESL learning.

6. Limitations

This scoping review has several limitations. The number of studies (n = 7) was limited, reflecting the nascent nature of metamotivation research and restricting the scope of the review. We searched only the Web of Science database and only English-language, peer-reviewed literature, which could have led to the omission of relevant studies and publication bias. The restriction to studies using explicit metamotivation terminology, while theoretically justified by the need to delineate a conceptually distinct construct, further narrows the scope of evidence captured. Studies addressing conceptually adjacent phenomena such as learners' beliefs about reward, incentive sensitivity, or motivational knowledge may have been missed if they did not adopt the specific metamotivation label. The practical consequence is that the review likely underestimates the volume of potentially relevant work, and its conclusions should be read as statements about the explicitly labelled metamotivation literature rather than about the broader domain of motivational beliefs in language learning. The review was not registered, and no quality assessment was performed, so studies of different quality were included with no assessment of their quality. Data charting and screening were largely carried out by a single reviewer, which could have introduced bias. Also, the inclusion of only studies that explicitly examined metamotivation may have overlooked studies on related topics such as motivational regulation or self-regulated learning. More broadly, the geographically concentrated, self-report, and cross-sectional nature of the reviewed studies means that strong claims about the generalizability or stability of metamotivational misbeliefs cannot be sustained on the basis of the current evidence; the findings support only tentative, context-specific conclusions that require replication across diverse settings before they can be

considered robust. Finally, being a scoping review, the study offers a descriptive rather than evaluative synthesis, and the findings are limited by the limitations of the studies reviewed, which are mostly cross-sectional, self-reported and geographically limited. AI was used solely to enhance language clarity and conciseness. All text, analyses and conclusions are original and have been verified.

Disclosures

No potential conflict of interest was reported by the authors.

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