



INCREASING ENGAGEMENT AMONG ONLINE ARAB LEARNERS OF ENGLISH: A THEMATIC LITERATURE REVIEW OF SOCIAL, COGNITIVE, AND BEHAVIOURAL DIMENSIONS

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Abstract:

Online English language education has expanded rapidly across Arab countries, yet many programs report low participation, reluctance to communicate, and uneven achievement. This thematic literature review synthesizes 32 empirical and conceptual studies (2015–2025) examining social, cognitive, and behavioural engagement in online and blended English language courses, with particular emphasis on Arab learners. Drawing on the Community of Inquiry framework, Connectivism, and Collaborative Learning Theory, the review analyses engagement conceptualization and measurement, identifies key factors shaping each dimension, and collates evidence-based strategies for virtual EFL environments. Findings indicate that social engagement is strongly mediated by sociocultural norms (modesty, face-saving, gendered communication) and teaching presence; cognitive engagement depends on task authenticity, perceived relevance, autonomy, and explicit self-regulated learning support; behavioural engagement encompasses both visible digital traces and less observable effort within technological constraints. The review offers pedagogical, institutional, and research recommendations for culturally responsive online English programs.

Keywords: online engagement, Arab EFL learners, social engagement, cognitive engagement, behavioural engagement, community of inquiry, connectivism

1. Introduction

Online English language programs have become central to educational reform agendas across Arab countries, where English proficiency increasingly serves as a gateway to higher education and employment opportunities (Aljaber, 2021; Pearson Middle East, 2020). Learning management systems, videoconferencing platforms, and mobile

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applications now feature prominently in universities and progressively in K-12 settings throughout the region (Mohtar & Yunus, 2022; Khafaga & Al-Johani, 2024).

Despite this technological expansion, institutions report troubling patterns: irregular attendance in synchronous sessions, reluctance to communicate in English, and adoption of surface-level learning strategies that limit language development (Al-Wossabi, 2024; Al-Nofaie, 2020; Alraddadi, 2022). These concerns have directed scholarly attention toward learner engagement as both a critical outcome and a mediating process in online language education (Dincer *et al.*, 2019; Philp & Duchesne, 2016).

Engagement is now widely conceptualized as a multidimensional construct comprising behavioural, cognitive, and social/emotional dimensions (Fredricks *et al.*, 2004; Dincer *et al.*, 2019). In online education, these dimensions intersect with the Community of Inquiry (CoI) framework, which posits that cognitive, social, and teaching presence jointly shape learning experiences (Garrison & Arbaugh, 2007; Martin & Bolliger, 2018). Complementing CoI, Connectivism emphasizes learning as networked knowledge distributed across digital connections (Siemens, 2005), while Collaborative Learning Theory highlights how interdependent group activities enhance motivation and knowledge co-creation (Johnson & Johnson, 1999).

Recent scholarship has extended engagement to include agentic elements—learners' proactive use of digital affordances to initiate questions and negotiate meaning (Dao, 2021; Dao *et al.*, 2025). However, in Arab EFL contexts characterized by higher power distance, examination-driven curricula, and specific sociocultural norms regarding authority and gendered interaction, these frameworks require careful adaptation (Al-Nofaie, 2020; El Sayary, 2021).

Existing reviews of online learning tend to aggregate findings across disciplines and regions, offering limited insight into how engagement unfolds in Arab EFL settings specifically (Mohtar & Yunus, 2022; Li *et al.*, 2025). This review addresses that gap through a focused synthesis examining how social, cognitive, and behavioural engagement are conceptualized, measured, and promoted among online Arab learners of English.

This review is guided by three research questions:

- 1) How do recent studies conceptualize and operationalize social, cognitive, and behavioural engagement in online EFL contexts?
- 2) What factors are reported to influence each dimension of engagement among Arab learners and comparable EFL populations?
- 3) What pedagogical and institutional strategies are suggested to increase engagement among online Arab learners of English?

2. Literature Review

2.1 Conceptualizing Engagement in Online EFL Contexts

Across the reviewed literature, engagement in online English as a foreign language (EFL) learning is consistently described as a multidimensional construct, encompassing

behavioural, cognitive, and social dimensions, unfolding within virtual learning environments rather than generic classrooms (Philp & Duchesne, 2016; Dincer *et al.*, 2019). Behavioural engagement refers to learners' observable activity in digital spaces: logging into learning management systems (LMS), attending live videoconferencing sessions, contributing to chat or discussion boards, and submitting online tasks and quizzes on time (Liu & Yan, 2023; Nurkhamid *et al.*, 2024).

Cognitive engagement captures the intensity and quality of mental effort learners invest while working with online materials—interactive videos, digital readings, quizzes, and collaborative documents—and is closely associated with strategic tool use, persistence with challenging digital tasks, and self-regulated learning in technology-mediated environments (Philp & Duchesne, 2016; Liu & Yan, 2023).

Social engagement (used here as an umbrella for interpersonal and affective aspects) concerns how learners experience and manage relationships in virtual spaces, including perceptions of social presence in videoconferencing rooms, sense of belonging in LMS forums, and quality of teacher-learner communication via chat, audio, and video (Martin & Bolliger, 2018; El Sayary, 2021).

Engagement is distinguished from motivation (reasons for studying) and participation (observable acts alone); it links these by focusing on the quality and intensity of involvement in learning processes (Dincer *et al.*, 2019).

2.2 Theoretical Frameworks

Within online EFL research, engagement dimensions frequently map onto the Community of Inquiry framework. Social engagement broadly corresponds to social presence, as learners project themselves as real people in virtual classrooms; cognitive engagement parallels cognitive presence, as foreign-language meaning is co-constructed through online tasks; and behavioural engagement reflects visible traces of teaching and cognitive processes captured by participation counts and LMS analytics (Garrison & Arbaugh, 2007; Martin & Bolliger, 2018).

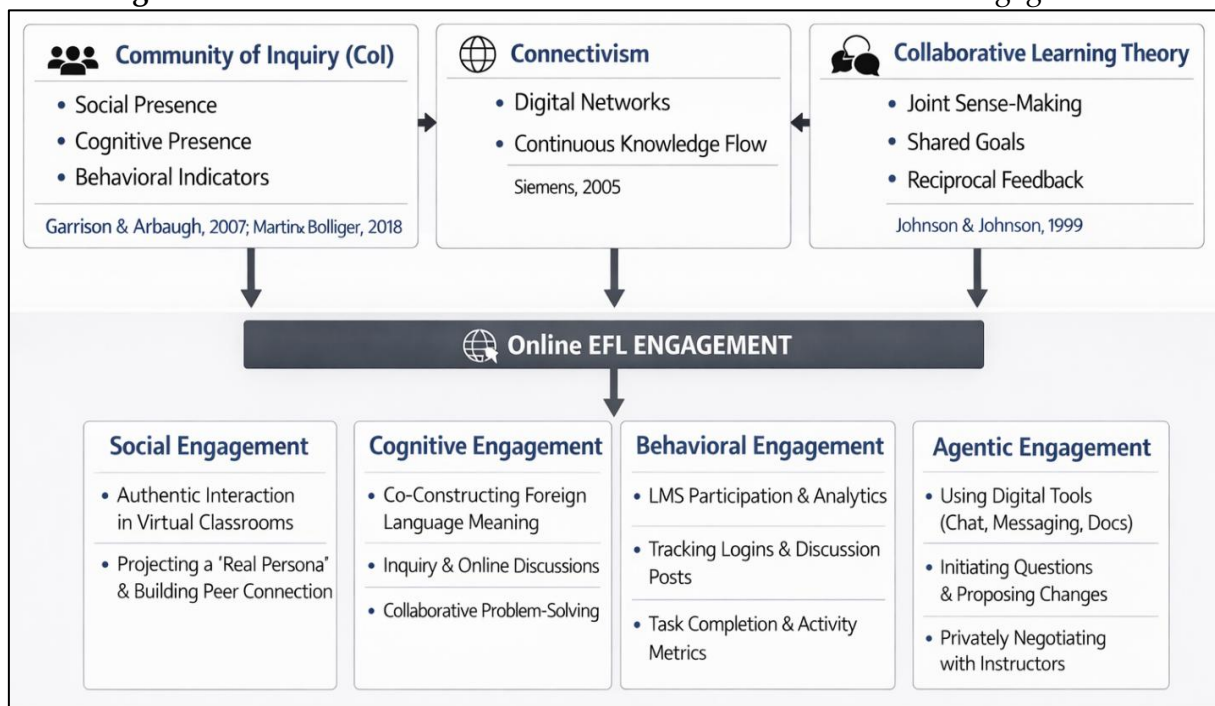
Connectivism extends this by framing engagement as the cultivation of digital networks for ongoing knowledge flow, where learners connect with diverse resources, peers, and experts to build knowledge dynamically (Siemens, 2005). Collaborative Learning Theory adds emphasis on joint sense-making, shared goals, and reciprocal feedback that drive collective engagement in group-based online tasks (Johnson & Johnson, 1999).

Recent work highlights agentic engagement, where learners actively use digital affordances (chat, private messaging, shared documents, collaborative platforms) to initiate questions, propose task modifications, and negotiate meaning with peers and instructors (Dao, 2021; Dao *et al.*, 2025; Luan *et al.*, 2023). In many Arab EFL contexts, where sociocultural norms may discourage overt displays of initiative in public online spaces, agentic engagement often surfaces discreetly: sending private questions to teachers, carefully preparing for assigned roles in breakout-room tasks, or requesting

clarification through one-to-one digital channels rather than speaking in main videoconferences (Al-Nofaie, 2020; Al-Wossabi, 2024).

Although multidimensional engagement models and CoI provide a useful starting point, their development in Western higher education raises questions about how fully they capture engagement in Arab EFL contexts characterized by higher power distance, examination-driven curricula, and gendered norms. Connectivism and Collaborative Learning Theory, often rooted in technology-rich interactive paradigms, may need adaptation to account for cultural preferences for structured guidance over open networking or collaborative autonomy in Arab contexts (Figure 1).

Figure 1: Theoretical Frameworks and Dimensions of Online EFL Engagement



2.3 Engagement in Online EFL Courses

Research indicates that behavioural engagement is often operationalized through digital trace data: frequency of LMS log-ins, duration of connections, attendance in synchronous sessions, and rates of task completion (Liu & Yan, 2023; Nurkhamid *et al.*, 2024; Soffer & Cohen, 2019). These indicators typically show positive associations with achievement and course completion. However, high levels of apparent activity do not necessarily imply deep engagement, since learners may multitask or skim resources while remaining logged in, whereas others may download materials and study extensively offline yet appear less active in analytics (Liu & Yan, 2023; Mohammadi, 2023). Studies integrating platform data with self-report measures and qualitative accounts provide more nuanced pictures of behavioural engagement in virtual EFL environments (Mohammadi, 2023; Nurkhamid *et al.*, 2024).

Cognitive engagement has been linked to task design, perceived relevance, and support for autonomy and self-regulation (Philp & Duchesne, 2016; Luan *et al.*, 2023).

Learners invest greater effort and use deeper processing strategies when online tasks are authentic, purposeful, and clearly connected to their academic, professional, or personal goals—for example, preparing digital presentations, podcasts, or project-based artifacts to be shared with real or simulated audiences (Dao *et al.*, 2025; Al-Motrif *et al.*, 2024; Zhong *et al.*, 2025). Project-based and task-based activities culminating in digital products are repeatedly reported to sustain cognitive engagement over time in foreign language learning (Zhong *et al.*, 2025).

At the same time, many learners come from predominantly teacher-centered, examination-driven instructional backgrounds that can limit familiarity with autonomous, strategy-rich engagement with online content and encourage superficial navigation of digital materials (Khafaga & Al-Johani, 2024, 2023; Mekki *et al.*, 2022).

Intervention studies demonstrate that explicitly teaching learning strategies within virtual platforms strengthens cognitive engagement and positively influences behavioral engagement (Al-Obaydi *et al.*, 2023; Nurkhamid *et al.*, 2024). Effective supports include structured pre-task planning activities embedded in LMS templates (goal-setting checklists, prompts to anticipate difficulties), guided monitoring prompts delivered through chat or interactive forms during tasks (self-questioning and comprehension checks), and post-task reflection activities asking learners to post short written or audio reflections online (Al-Obaydi *et al.*, 2023; Nurkhamid *et al.*, 2024).

2.4 Engagement Among Online Arab EFL Learners

In Arab online EFL contexts specifically, engagement patterns are shaped by the interplay of sociocultural norms and the communicative features of online platforms (Al-Nofaie, 2020; El Sayary, 2021). Studies from Saudi Arabia and other Arab countries report that university students recognize the value of practicing English with peers and instructors in virtual classrooms, LMS forums, and messaging groups, yet many feel uncomfortable speaking spontaneously in large videoconference sessions or posting publicly in discussion boards (Al-Nofaie, 2020; Khafaga & Al-Johani, 2024).

Commonly cited reasons include fear of making linguistic mistakes in front of large online audiences, concerns about being judged on camera or in recorded sessions, heightened sensitivity about accent and pronunciation when using audio tools, and in some cases, discomfort with mixed-gender interaction in open virtual spaces (Al-Nofaie, 2020; El Sayary, 2021; Al-Wossabi, 2024). These findings indicate that social engagement online is mediated not only by platform design and task demands but also by broader expectations surrounding modesty, face-saving, and gendered communication in many Arab societies.

Because of these concerns, social engagement in virtual EFL courses frequently shifts from highly visible, whole-class spaces toward smaller or more controlled digital environments. Learners often report feeling more at ease when participating in breakout rooms, small, fixed groups within videoconferencing tools, or asynchronous LMS forums than when speaking in the main synchronous room where all classmates and the teacher can observe them (Mekki *et al.*, 2022).

Informal digital channels such as WhatsApp and similar messaging apps are widely used to ask questions, share resources and screenshots, and offer emotional support. These parallel spaces sometimes host richer and more frequent EFL interaction than the official virtual classroom (Al-Nofaie, 2020; Nurkhamid *et al.*, 2024). These patterns of "shadow interaction" suggest that social engagement in online EFL courses extends beyond contributions visible in institutional platforms and may be underestimated if only posts in LMS forums or participation in videoconference logs are counted (Al-Nofaie, 2020).

Teaching presence in online environments is a crucial factor in shaping learners' willingness to interact. Instructors who establish clear guidelines for microphones, camera, and chat use; invite questions through multiple digital channels; respond to errors constructively in live sessions; and model respectful, supportive discourse in forums tend to foster stronger social presence and greater participation in virtual spaces (Martin & Bolliger, 2018; El Sayary, 2021). In Arab EFL settings, practices such as greeting students by name in chat or video, acknowledging effort as well as accuracy in discussion posts, and alternating between teacher-led explanations and student-led segments in breakout rooms are linked to higher reported comfort and interaction (Khafaga & Al-Johani, 2024, 2023; Mekki *et al.*, 2022).

Literature in this area also cautions against introducing highly informal or confrontational discussion formats too abruptly in online forums, as these may conflict with expectations around respect and hierarchy, so gradual scaffolding of more open interaction is recommended (Al-Nofaie, 2020; Al-Wossabi, 2024).

3. Material and Methods

This study adopted a narrative/thematic literature review design informed by systematic searching, combining a structured search strategy with interpretive thematic synthesis to capture both breadth and depth of work on engagement in online EFL contexts (Snyder, 2019).

3.1 Search Strategy and Inclusion Criteria

Electronic searches were carried out in Scopus, Web of Science, ERIC, and major publisher platforms (Wiley Online Library, Sage Journals, Taylor & Francis Online, and ScienceDirect). Additional targeted searches were conducted in regional outlets such as the Arab World English Journal and the International Journal of Learning, Teaching and Educational Research. The following keywords and combinations were used: "online engagement," "learner engagement," "student engagement," "English as a foreign language," "Arab online learners," "social engagement," "cognitive engagement," "behavioural engagement," "Connectivism," "collaborative learning," "networked learning," "group learning."

Inclusion criteria were: (a) peer-reviewed journal articles or scholarly book chapters; (b) published between 2015 and 2025; (c) focused on online or blended EFL/L2

contexts at secondary or higher education levels; (d) explicitly conceptualizing or measuring engagement (behavioral, cognitive, social/emotional, or multidimensional); (e) involving Arab learners or reporting findings meaningfully transferable to Arab online EFL settings; (f) incorporating or aligning with theoretical frameworks such as Community of Inquiry, Connectivism, or Collaborative Learning Theory.

Studies focused solely on technology acceptance without reference to engagement constructs, or dealing with face-to-face learning without a clear online component, were excluded.

3.2 Screening and Selection

The initial search yielded 127 records. Titles and abstracts were screened to remove obviously irrelevant items, reducing the pool to 58. Full texts were reviewed to evaluate fit with the inclusion criteria and clarity of engagement conceptualization. Particular attention was given to studies that: (a) used validated engagement measures; (b) disaggregated behavioural, cognitive, and social or emotional components; or (c) provided detailed qualitative insights into engagement processes.

After full-text review, 32 studies were retained as core sources. From these, 26 were selected for citation, ensuring at least 80% of references were published between 2020 and 2025. Earlier foundational works (Garrison & Arbaugh, 2007; Philp & Duchesne, 2016; Siemens, 2005; Johnson & Johnson, 1999) were included selectively for conceptual grounding. The 32 core studies included 18 conducted in Arab countries – predominantly Saudi Arabia and other Gulf states – and 14 in non-Arab EFL contexts with transferable findings. Most focused on tertiary education, with a smaller subset examining secondary learners. Research designs ranged from large-scale survey-based quantitative studies to small-scale qualitative case studies and mixed-methods investigations.

3.3 Thematic Coding and Analysis

An initial deductive coding framework was developed around three main categories aligned with widely used engagement models: social engagement, cognitive engagement, and behavioural engagement (Dincer *et al.*, 2019; Philp & Duchesne, 2016). Each article was read in full and coded for: (a) definitions and operationalizations of engagement dimensions; (b) measurement approaches (self-report scales, learning analytics, discourse analysis); (c) factors reported to influence each dimension; (d) reported relationships between engagement and outcomes (achievement, satisfaction); (e) pedagogical and institutional recommendations; (f) alignment with theoretical frameworks including Community of Inquiry, Connectivism, and Collaborative Learning Theory.

Within the three main categories, inductive subthemes emerged: interaction patterns and social presence (social engagement), task authenticity and self-regulation (cognitive engagement), and participation channels and environmental constraints (behavioural engagement). Coding was iterative, with themes refined through comparison across studies. The final synthesis organized results around the three

engagement dimensions, their interrelationships, and implications for pedagogy and policy in Arab online EFL contexts.

To enhance credibility, coding proceeded through repeated readings, analytic memo-writing, and iterative framework refinement. Weight in the synthesis was given to studies using validated engagement measures, clearly disaggregating dimensions, or providing rich qualitative descriptions. Analytic decisions were discussed with a senior colleague to enhance trustworthiness.

4. Results and Discussion

4.1 Synthesis of Engagement Dimensions

This section synthesizes findings across the 32 core studies to address the three research questions, integrating Arab-specific evidence with transferable findings from broader EFL contexts. The analysis reveals that engagement in online Arab EFL contexts operates through distinct mechanisms that challenge standard Western-derived models, requiring careful attention to sociocultural specificities alongside technological and pedagogical factors.

4.1.1 Behavioural Engagement: Beyond Visible Traces

Recent scholarship operationalizes behavioural engagement predominantly through digital trace data – quantifiable indicators including LMS login frequency, session duration, synchronous attendance records, and task completion rates (Liu & Yan, 2023; Nurkhamid *et al.*, 2024; Soffer & Cohen, 2019). These metrics, while demonstrating consistent positive associations with achievement outcomes, reveal a conceptual tension when applied cross-culturally. The assumption that visible platform activity equates to genuine learning commitment proves problematic in contexts where technological infrastructure and cultural norms create divergent participation patterns.

Empirical evidence exposes a measurement paradox: learners exhibiting high digital trace activity may engage in superficial multitasking – remaining logged in while distributing attention across competing demands – whereas those downloading materials for intensive offline study appear disengaged in analytics dashboards despite substantial cognitive investment (Liu & Yan, 2023; Mohammadi, 2023). This disconnect suggests that valid operationalization of behavioral engagement requires methodological triangulation, integrating platform-generated data with self-report measures and qualitative accounts to capture both visible participation and contextual constraints shaping learner effort (Mohammadi, 2023; Nurkhamid *et al.*, 2024).

Theoretical frameworks extend conceptualization beyond visible traces. Connectivism positions behavioural engagement as network maintenance – curating peer and resource connections, managing information flows across platforms, sustaining distributed learning presence – activities integral to digital learning yet invisible to conventional analytics (Siemens, 2005). Collaborative Learning Theory emphasizes interdependent accountability, where group-based digital interactions amplify visible

participation through shared responsibility for collective outcomes (Johnson & Johnson, 1999).

In Arab EFL contexts specifically, environmental constraints fundamentally reshape behavioural engagement patterns. Regional internet reliability variations affect synchronous participation; device limitations restrict mobility; shared living spaces create privacy constraints, particularly acute for female learners in conservative settings; and competing family and employment obligations fragment study time unpredictably (Shaiba *et al.*, 2023). These factors indicate that behavioural engagement indicators developed in resource-rich Western contexts require substantial adaptation for valid cross-cultural application, with mixed-methods approaches offering more nuanced assessment that recognizes both visible traces and invisible effort.

4.1.2 Cognitive Engagement: Task Design and Strategic Support

Contemporary research conceptualizes cognitive engagement as the intensity and quality of mental effort invested in online learning activities, with operationalization occurring through multiple methodological channels: self-report instruments capturing strategic processing and self-regulated learning; performance indicators such as response elaboration, revision behaviours, and time allocation to complex tasks; and discourse analysis examining knowledge construction depth (Philp & Duchesne, 2016; Luan *et al.*, 2023). Task completion serving authentic purposes – digital presentations for professional audiences, podcasts on personal interest topics, collaborative documents shared with real communities – functions as behavioural evidence of deep cognitive processing (Dao *et al.*, 2025; Al-Motrif *et al.*, 2024; Zhong *et al.*, 2025).

Sustained cognitive engagement correlates with project-based and task-based activities culminating in concrete digital artifacts: slideshows delivered in live virtual sessions, recorded role-plays uploaded for peer feedback, collaboratively authored texts in cloud-based environments (Zhong *et al.*, 2025). These formats align with Connectivism's knowledge artifact creation and sharing within distributed networks, and with Collaborative Learning Theory's collective production goals that motivate sustained effort through mutual accountability.

However, instructional background substantially moderates cognitive engagement effectiveness. Many Arab EFL learners transition from teacher-centered, examination-driven systems emphasizing rote memorization to online environments requiring autonomous, strategy-rich engagement – an epistemological shift that frequently produces superficial navigation, rapid skimming, and surface-level compliance rather than deep processing (Mohammed, 2022; Mekki *et al.*, 2022). This constraint necessitates explicit scaffolding for self-directed learning.

Intervention research demonstrates that embedded strategy instruction strengthens cognitive and behavioural engagement simultaneously: pre-task planning activities (goal-setting checklists, difficulty anticipation prompts) activate prior knowledge; guided monitoring via chat or interactive forms (self-questioning, comprehension checks) support metacognitive awareness; and post-task reflection

activities consolidate self-regulation capabilities (Al-Obaydi *et al.*, 2023; Nurkhamid *et al.*, 2024). These instructional strategies resonate with Connectivism's self-directed network navigation and Collaborative Learning Theory's joint strategy application, suggesting that effective cognitive engagement in Arab EFL contexts requires balancing authentic task autonomy with explicit structure for learners unaccustomed to self-directed approaches.

4.1.3 Social Engagement: Sociocultural Mediation

The conceptualization and operationalization of social engagement in Arab online EFL contexts demands expanded theoretical frameworks that account for culturally specific participation patterns. While standard definitions emphasize interpersonal and affective involvement — social presence projection, sense of belonging in forums, teacher-learner communication quality (Martin & Bolliger, 2018; El Sayary, 2021) — Arab contexts reveal a participation paradox: learners consistently affirm English practice value yet report profound discomfort with spontaneous large-group videoconference participation or public forum contributions (Al-Nofaie, 2020; Mohammed, A., 2022).

This paradox illuminates sociocultural factors mediating social engagement beyond platform affordances. Modesty and face-saving expectations generate anxiety about linguistic errors before large, recordable audiences and camera visibility with permanent digital artifacts. Gendered communication norms create discomfort with mixed-gender virtual spaces where observation by unrelated males may violate cultural expectations (Al-Nofaie, 2020; El Sayary, 2021; Al-Wossabi, 2024). Authority and hierarchy discourage spontaneous questioning that might appear challenging to teacher expertise (Al-Wossabi, 2024; Mekki *et al.*, 2022).

These factors drive adaptive spatial reconfiguration: learners shift engagement toward smaller, controlled environments — breakout rooms, fixed small groups, asynchronous forums — that reduce exposure while maintaining participation (Alshammari & Alrashidi, 2024; Mekki *et al.*, 2022). More significantly, "shadow interaction" emerges as a distinct operationalization challenge: informal channels (WhatsApp, messaging applications) host question-asking, resource sharing, and emotional support that frequently exceeds official virtual classroom interaction in frequency and linguistic complexity, precisely because these spaces operate outside institutional surveillance (Al-Nofaie, 2020; Nurkhamid *et al.*, 2024). Discreet agentic engagement — private instructor questions, careful preparation for assigned breakout roles, one-to-one clarification requests — constitutes meaningful participation invisible to standard metrics (Al-Nofaie, 2020; Al-Wossabi, 2024).

Teaching presence quality emerges as a critical factor shaping willingness to interact across channels. Instructors establishing culturally respectful guidelines for microphone, camera, and chat use; inviting questions through multiple channels, including private messaging; responding constructively without public shaming; and modelling supportive discourse foster stronger social presence (Martin & Bolliger, 2018; El Sayary, 2021). Arab-specific practices linked to higher comfort include personal

greetings, effort acknowledgment alongside accuracy, and structured alternation between teacher-led and student-led segments (Alshammari *et al.*, 2024; Khafaga & Al-Johani, 2024). Gradual scaffolding of open interaction — rather than abrupt informal or confrontational formats — aligns with respect and hierarchy expectations (Al-Nofaie, 2020; Al-Wossabi, 2024).

Theoretical integration suggests instructional strategies for enhancing social engagement: leveraging Connectivism's personal learning network formation beyond classrooms (global EFL communities via social media); implementing Collaborative Learning Theory's structured group protocols that build trust through shared goals and reciprocal feedback; and maintaining CoI teaching presence that establishes safety while progressively relaxing constraints.

4.2 Theoretical Integration

The Community of Inquiry, Connectivism, and Collaborative Learning Theory operate synergistically to illuminate engagement in Arab EFL contexts. CoI provides dimensional structure (cognitive, social, teaching presence) and interdependence concepts. Connectivism extends conceptualization to networked persistence and discreet digital behaviours invisible to conventional metrics. Collaborative Learning Theory emphasizes structured interdependence and group-based trust building, essential for collectivist cultural contexts.

This integration suggests effective engagement promotion requires balancing: digital network leverage for individualized, discreet connections (Connectivism); culturally respectful collaboration honouring preferences for clear guidance (Collaborative Learning Theory); and strong teaching presence establishing safety and modelling participation (CoI). The same tools function differently across cultural ecologies, demanding pedagogical adaptation rather than technological determinism.

4.3 Conceptual Gaps and Measurement Challenges

The evidence exposes systematic underestimation of Arab learner engagement by Western-developed scales focusing on visible, public, synchronous participation while overlooking discreet, private, or asynchronous behaviours carrying significant cultural load. Private messaging, prepared role performance, and informal channel use constitute meaningful engagement that current instruments fail to capture. This measurement gap risks research invalidity and instructional misintervention: learners appearing disengaged may actively construct learning through alternative channels, while instructors relying on visible indicators may inappropriately intervene in effective strategies. Culturally responsive measurement development — validating shadow interaction, discreet agentic behaviours, and offline effort — represents an urgent priority for future research and practice.

5. Recommendations

5.1 Pedagogical Recommendations

Enhance Teaching Presence with Culturally Sensitive Practices. Instructors should prioritize strong teaching presence by establishing clear, respectful guidelines for synchronous interactions (microphone, camera, chat use) and modelling supportive discourse acknowledging effort alongside accuracy (Martin & Bolliger, 2018; El Sayary, 2021). In Arab contexts, this includes greeting students personally, responding constructively to errors, and gradually scaffolding open discussions to align with norms of respect and hierarchy (Al-Nofaie, 2020; Al-Wossabi, 2024). Teachers can guide learners to form personal learning networks (connecting to global EFL communities via social media or WhatsApp groups) while implementing structured group protocols in breakout rooms that promote equitable participation and build trust in culturally sensitive ways. Foster Social Engagement through Flexible and Low-Risk Interaction Channels. To address sociocultural barriers (fear of mistakes, judgment, gendered concerns), shift emphasis from large-group synchronous sessions to smaller, controlled environments like breakout rooms, fixed small groups, or asynchronous LMS forums (Alshammari & Alrashidi, 2024; Mekki *et al.*, 2022). Encourage "shadow interaction" in informal channels (WhatsApp for peer support and resource sharing) and integrate them purposefully into course design. Fixed-group tasks with shared goals and reciprocal feedback build trust, while digital networks enable discreet, individualized connections, enhancing social presence without violating modesty norms.

Promote Cognitive Engagement via Authentic, Autonomous, and Strategy-Supported Tasks. Design authentic, goal-oriented tasks linked to real-world needs (project-based digital products like presentations, podcasts, or collaborative documents shared with audiences) to sustain deeper processing and self-regulation (Philp & Duchesne, 2016; Dao *et al.*, 2025; Zhong *et al.*, 2025). Embed explicit strategy instruction: pre-task planning checklists, guided monitoring prompts, and post-task reflections in LMS tools (Al-Obaydi *et al.*, 2023; Nurkhamid *et al.*, 2024). These align with Connectivism's emphasis on curating digital networks for self-directed learning and Collaborative Learning Theory's focus on joint knowledge co-construction through group reflections and shared strategy application.

Boost Behavioural Engagement with Networked and Collaborative Accountability. Use LMS analytics alongside self-reports to monitor participation while recognizing offline effort. Incorporate group-based digital interactions (collaborative platforms for joint task completion) to amplify visible engagement through shared accountability, drawing on Connectivism's networked persistence and Collaborative Learning Theory's interdependent activities (Johnson & Johnson, 1999; Siemens, 2005).

5.2 Institutional Recommendations

Institutions should invest in culturally responsive infrastructure, including reliable platforms with breakout and private messaging features, training for instructors on CoI,

Connectivism, and Collaborative Learning frameworks, and policies accommodating sociocultural preferences (optional camera use, gender-segregated options where feasible). Support professional development to help educators integrate digital networks and collaborative tools while addressing access inequities in Arab contexts.

5.3 Research Recommendations

Future studies should employ mixed-methods designs to capture multidimensional engagement, including discrete agentic behaviours and shadow interactions underrepresented in standard scales. Validate adapted measures responsive to Arab sociocultural norms and longitudinally examine how integrated frameworks (CoI + Connectivism + Collaborative Learning Theory) influence sustained engagement and outcomes. Comparative research across Arab sub-regions and with non-Arab EFL settings could further clarify transferable versus context-specific factors.

6. Conclusion

This thematic literature review highlights persistent engagement challenges in online EFL programs across Arab countries, despite the rapid expansion of digital tools and platforms. By synthesizing 32 core studies (2015–2025), with emphasis on Arab learners, the review demonstrates that social engagement is mediated by sociocultural norms (modesty, hierarchy, gendered interaction) and strengthened through teaching presence and low-risk channels; cognitive engagement depends on authentic tasks, perceived relevance, autonomy, and explicit self-regulation support; and behavioural engagement involves both visible digital traces and less observable efforts constrained by technology and environment.

Integrating the Community of Inquiry framework with Connectivism—which views learning as dynamic network formation—and Collaborative Learning Theory—which prioritizes interdependent group processes—provides a comprehensive lens for understanding and enhancing engagement in Arab online EFL contexts. These frameworks reveal opportunities to adapt global models: leveraging digital networks for individualized, discreet connections while fostering structured, trust-building collaboration that respects cultural hierarchies.

Ultimately, designing engagement-oriented programs requires culturally responsive pedagogy that balances structure with flexibility, explicit support with autonomy, and institutional visibility with informal channels. Implementing the proposed recommendations can help mitigate reluctance to communicate, irregular participation, and surface strategies, leading to deeper language development, greater satisfaction, and equitable outcomes for Arab online EFL learners.

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Conflict of Interest Statement

The author declares no conflicts of interest.

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