

Mapping the Interconnection of Social Emotional Competence, Self-Efficacy, and Self-Agency in the Digital EFL Environment: A Mixed Method Study

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ARTICLE INFO	ABSTRACT
Article history Received April 07, 2026 Revised June 15, 2026 Accepted July 21, 2026	This study investigated the interconnection among social-emotional competence, self-efficacy, and self-agency in the digital English as a Foreign Language (EFL) environment. Using a convergent mixed methods design, the study examined the relationships among these constructs and explored their relevance to students' experiences in technology-mediated language learning. The participants were undergraduate students from two private universities in Jakarta, Indonesia, with prior experience in online or blended EFL learning. Quantitative data were collected through three Likert-scale questionnaires, while qualitative data were planned through semi-structured interviews to enrich the interpretation. Quantitative data were analyzed using descriptive statistics, Pearson correlation, and multiple regression. The findings showed that social-emotional competence, self-efficacy, and self-agency were positively related, with self-efficacy emerging as the strongest predictor of self-agency. These results highlight the central role of self-efficacy in fostering learner agency and suggest that emotionally supportive and confidence-building digital EFL environments are important for promoting active and meaningful learner engagement. This is an open access article under the CC-BY license.
Keywords Self efficacy Social emotional competence Digital Learning	



I. Introduction

Rapid expansion of digital learning has profoundly reshaped the landscape of English as a Foreign Language (EFL) education. Language learning is no longer confined to face to face classroom interaction or textbook driven instruction instead, it increasingly occurs within technology mediated environments that demand learner autonomy, adaptability, and sustained engagement. In such contexts, learners are not only required to develop linguistic competence but also to navigate psychological and social challenges associated with online learning. Consequently, contemporary research in digital EFL has shifted beyond a sole focus on language outcomes to include the individual and contextual factors that contribute to meaningful learning experiences. Recent studies suggest that technology-enhanced EFL learning places significant demands on learners' self-confidence, emotional regulation, and self-directed participation (Han & Geng, 2021; Xu, Wu, & Peng, 2022; C. Zhang, Mao, Li, & Gu, 2022; Y. Zhang, 2022).

One key construct in this regard is social emotional competence (SEC), defined as the ability to understand and regulate emotions, establish positive relationships,

demonstrate empathy, make responsible decisions, and achieve personal goals (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Thierry et al., 2022). While widely examined in general education, SEC is particularly relevant in digital learning environments, where reduced face to face interaction may intensify feelings of isolation, anxiety, and uncertainty (C. Zhang et al., 2022). At the same time, online learning requires learners to exercise greater emotional control and interpersonal adaptability. Empirical research has increasingly recognized SEC as a comprehensive framework for understanding learners' psychological adjustment and social functioning across educational contexts (Belay & Dejene, 2024; Immordino-Yang, Darling-Hammond, & Krone, 2019). In digital EFL settings, SEC thus plays a foundational role in supporting learners' engagement, resilience, and persistence.

Closely related to social-emotional competence is the construct of self-efficacy, which refers to individuals' beliefs in their capability to successfully perform tasks (Bandura, 1997). In EFL contexts, self-efficacy has been consistently linked to language achievement, motivation, engagement, and the use of effective learning strategies (Han & Geng, 2021; Zhi, Wang, & Wang, 2024). Its importance is amplified in digital environments, where

learners must independently manage tasks, monitor progress, and evaluate their own learning through technological tools. Research indicates that well designed digital environments that provide interactive feedback, scaffolding, and opportunities for self-assessment can enhance learners' self-efficacy (Xu et al., 2022; Y. Zhang, 2022).

In language education, self-efficacy is closely intertwined with learner agency, often conceptualized as learners' capacity to act purposefully and proactively in shaping their learning processes. Mercer (2011), conceptualizes agency as a dynamic, context sensitive phenomenon influenced by motivation, affect, self-regulation, and environmental affordances. Similarly, Reeve and Tseng (2011) define agency as learners' constructive contribution to the learning process, emphasizing their active role in creating supportive learning conditions. In digital EFL contexts, learner agency becomes particularly critical, as students are expected to navigate online resources, engage in both synchronous and asynchronous activities, initiate interaction, and sustain learning momentum despite limited direct teacher guidance

Although social-emotional competence, self-efficacy, and learner agency have each been widely studied, they are often examined in isolation rather than as interconnected dimensions of learner experience. Existing research has explored the role of self-efficacy in online self-regulated learning and emotional adaptation (Xu et al., 2022), as well as its relationship with academic emotions and language proficiency (Han & Geng, 2021). Other studies have highlighted the influence of digital learning environments on learners' emotional and regulatory processes (C. Zhang et al., 2022; Zhi et al., 2024). However, empirical investigations that integrate these three constructs within a unified digital EFL framework remain limited.

This gap is significant because digital learning is inherently multidimensional. Learners' social-emotional competence may shape their self-efficacy and in turn, self-efficacy may influence their willingness to exercise agency, and agentic behaviour may further reinforce both emotional regulation and sustained engagement. Understanding these interrelationships is therefore essential for explaining how learners adapt to and succeed in digital language learning environments.

To address this gap, the present study examines the interconnection among social-emotional competence, self-efficacy, and learner agency in a digital EFL context using a mixed-methods design. By integrating quantitative and qualitative approaches, the study moves beyond isolated variable analysis to explore both the structural relationships among these constructs and learners lived experiences in technology-mediated environments. Quantitative data provide insights into the patterns and strength of relationships, while qualitative findings offer

deeper understanding of how learners interpret and enact their emotions, beliefs, and agentic behaviours. This study contributes to the growing body of research on learner psychology in EFL education and offers a more holistic perspective on the factors that support meaningful participation in digital language learning. The findings are expected to inform pedagogical practices and curriculum design aimed at fostering not only linguistic competence but also emotionally resilient, confident, and agentic learners.

II. Method

This study employed a convergent mixed methods design to investigate the interconnection among social-emotional competence, self-efficacy, and self-agency in the digital English as a Foreign Language (EFL) environment. In this design, quantitative and qualitative data were collected concurrently, analysed separately, and integrated during the interpretation phase to provide a comprehensive understanding of the research problem (Creswell, J. W., & Creswell, 2018). This approach was considered appropriate as it enabled the examination of both the structural relationships and predictive roles among the constructs, as well as learners lived experiences in digitally mediated English learning contexts.

The participants consisted of 200 undergraduate students from two private universities in Jakarta, Indonesia, aged between 17 and 25 years. These two universities were purposively selected because both had fully integrated digital and blended EFL instruction into their curricula for at least three consecutive academic years, ensuring that participants possessed sufficient and comparable exposure to the technology-mediated learning context under investigation, consistent with established guidance on purposive sampling in applied educational research (Etikan, Musa, & Alkassim, 2016). All participants were enrolled in EFL related courses and had prior experience with online or blended English learning through digital platforms such as learning management systems and video conferencing tools. Students who lacked experience in digital EFL learning or did not complete the research instruments were excluded from the study. For the qualitative phase, 20 participants were purposively selected from the survey respondents (10 from each institution). The selected participants included 12 females and 8 males and were chosen based on their willingness to participate and their ability to provide rich and relevant insights into digital learning experiences. The use of purposive sampling ensured that participants had sufficient exposure to the phenomenon under investigation and could contribute meaningful data (Cohen, 2018; Creswell, J. W., & Creswell, 2018).

Data were collected using three questionnaires and a semi-structured interview guide. The first questionnaire measured social-emotional competence (SEC) and consisted of 20 items adapted from established SEL

constructs, emphasizing emotional regulation, interpersonal skills, and responsible decision-making (Durlak et al., 2011; Immordino-Yang et al., 2019). The second questionnaire assessed self-efficacy, comprising 20 items grounded in Bandura's (1997) social cognitive theory. The third questionnaire measured self-agency, also consisting of 20 items, informed by the conceptualizations of learner agency proposed by Mercer (2011) and Reeve and Tseng (2011).

All items were rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Prior to the main study, the instruments were reviewed by experts to ensure content validity and were pilot-tested to evaluate clarity and reliability. Internal consistency was assessed using Cronbach's alpha, with a threshold of 0.70 considered acceptable (Taber, 2018). In the present study, all three instruments substantially exceeded this benchmark, with Cronbach's alpha coefficients ranging from .92 to .93 across the 200 participants from the two participating universities, indicating that the measurement of SEC, SEF, and SAG was conducted with a high degree of internal consistency and transparency. The qualitative data were collected through semi-structured interviews to gain deeper insights into learners' emotional, cognitive, and agentic experiences in digital EFL learning. The interview protocol focused on how participants managed emotions, developed confidence, and exercised agency in online English learning contexts. Interviews were conducted either online or face to face, audio recorded with participants' consent, and transcribed verbatim for analysis. The data collection process was conducted in several stages. First, institutional approval and informed consent were obtained. Second, the questionnaires were distributed online to the participants. After the survey data were collected and screened, selected participants were invited to participate in follow-up interviews. Finally, both quantitative and qualitative data were prepared for analysis.

Quantitative data were analysed using SPSS. Descriptive statistics (means, standard deviations, frequencies, and percentages) were used to summarize the data. Pearson product-moment correlation analysis was conducted to examine the direction and strength of relationships among social-emotional competence, self-efficacy, and self-agency. Additionally, multiple regression analysis was employed to determine the extent to which social-emotional competence and self-efficacy predicted self-agency (Field, 2018) while Qualitative data were analysed using thematic analysis supported by ATLAS.ti, following the procedures outlined by Braun and Clarke (2021), including familiarization with the data, coding, theme development, theme refinement, and interpretation. Finally, findings from both quantitative and qualitative strands were integrated during interpretation, consistent with the convergent mixed-methods design, to provide a more comprehensive understanding of the

interconnection among the three constructs in digital EFL learning.

III. Results and Discussion

This section presents the quantitative and qualitative findings of the study on the interconnection of social emotional competence (SEC), self-efficacy (SEF), and self-agency (SAG) in the digital EFL environment.

A. Quantitative Results

The quantitative analysis was based on 200 students derived from 2 Universities. The analysis included descriptive statistics, reliability analysis, Pearson correlation, Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM).

Table 1. Descriptive statistics and internal consistency coefficients of SEC, SEF, and SAG

Variable	N	M	SD	Cronbach's α
Social Emotional Competence (SEC)	200	4.05	0.49	0.92
Self-Efficacy (SEF)	200	4.17	0.50	0.92
Self-Agency (SAG)	200	4.17	0.51	0.93

Table 1 presents the descriptive statistics and reliability coefficients for the three constructs. The results show that all three variables had relatively high mean scores on a five-point Likert scale, indicating that the participants generally reported positive levels of SEC, SEF, and SAG. Among the three constructs, self-efficacy and self-agency had the highest mean scores ($M = 4.17$), while social emotional competence had a slightly lower mean ($M = 4.05$). The standard deviations ranged from 0.49 to 0.51, suggesting a moderate spread of responses. In addition, all three scales demonstrated excellent internal consistency, with Cronbach's alpha coefficients ranging from .92 to .93. These findings indicate that the instruments were reliable for measuring the intended constructs.

Table 2. Pearson Correlations Among SEC, SEF, and SAG

Variable	1	2	3
1. SEC	1.00	0.64	0.67
2. SEF	0.64	1.00	0.72
3. SAG	0.67	0.72	1.00

The results indicate positive and statistically significant associations among the three constructs. SEC was strongly correlated with SEF ($r = .64, p < .001$) and SAG ($r = .67, p < .001$), while the strongest correlation was found between SEF and SAG ($r = .72, p < .001$). These results suggest that students with higher levels of emotional competence also tended to report greater confidence in online learning and stronger learner agency. Likewise, students with stronger self-efficacy tended to demonstrate greater self-agency. Overall, the correlation analysis

shows that the three constructs were meaningfully interconnected in the digital EFL environment.

Table 3. Fit Indices for the Three-Factor CFA Model

Fit Index	Value	Recommended Criterion
χ^2	86.42	Lower is better
df	87	—
χ^2/df	0.99	< 3.00
CFI	1.00	≥ .90
TLI	1.00	≥ .90
RMSEA	.00	≤ .08

The findings indicate that the proposed measurement model demonstrated an excellent fit to the data. The chi-square to degrees of freedom ratio was below the recommended cut-off value ($\chi^2/df = 0.99$), indicating good model parsimony. Similarly, the Comparative Fit Index (CFI = 1.00) and Tucker-Lewis Index (TLI = 1.00) exceeded the recommended threshold of .90, while the Root Mean Square Error of Approximation (RMSEA = .00) was well below the acceptable limit of .08. Taken together, these fit indices provide strong support for the adequacy of the three-factor measurement model.

Table 3. Composite Reliability and Average Variance Extracted

Construct	CR	AVE
SEC	0.91	0.67
SEF	0.93	0.71
SAG	0.93	0.73

Further evidence for the quality of the measurement model is shown in Table 4, which reports the composite reliability (CR) and average variance extracted (AVE) values for each construct. All CR values were above .70, indicating strong construct reliability, while all AVE values were above 0.50, demonstrating satisfactory convergent validity. Specifically, SEC obtained a CR of 0.91 and an AVE of 0.67, SEF showed a CR of 0.93 and an AVE of 0.71, and SAG produced a CR of 0.93 and an AVE of 0.73. These findings indicate that the indicators adequately represented their respective latent constructs and that each construct explained a substantial proportion of variance in its indicators.

Table 4. Standardized Path Coefficients for the Structural Model

Path	β	p
SEC → SEF	0.70	< .001
SEC → SAG	0.35	< .001
SEF → SAG	0.53	< .001

Table 5 presents the standardized path coefficients for the structural model. The results show that all hypothesized paths were positive and statistically significant. SEC had a strong direct effect on SEF ($\beta = .70$,

$p < .001$), indicating that higher social emotional competence was associated with stronger self-efficacy. SEC also had a direct positive effect on SAG ($\beta = .35$, $p < .001$), suggesting that emotional competence contributed directly to students' sense of initiative and control in online learning. In addition, SEF significantly predicted SAG ($\beta = .53$, $p < .001$), showing that students with greater confidence in their online English learning abilities also tended to report higher self-agency.

Table 5. Direct and Indirect Effects in the Structural Model

Effect	β
Direct effect: SEC → SEF	0.70
Direct effect: SEC → SAG	0.35
Direct effect: SEF → SAG	0.53
Indirect effect: SEC → SEF → SAG	0.37

The results shown in table 6 indicate that SEC exerted both direct and indirect effects on SAG. The direct effect of SEC on SAG was 0.35, while the indirect effect through SEF was 0.37. This pattern suggests that self-efficacy functioned as a partial mediating variable in the relationship between social emotional competence and self-agency. In other words, SEC contributed to learner agency not only directly but also indirectly by strengthening students' self-efficacy.

Table 6. Fit Indices for the Structural Equation Model

Fit Index	Value	Recommended Criterion
χ^2	86.42	Lower is better
df	87	—
χ^2/df	0.99	< 3.00
CFI	1.00	≥ .90
TLI	1.00	≥ .90
RMSEA	.00	≤ .08

The results show that the structural model achieved an excellent fit to the data, with the same fit values as the CFA model. The chi-square-to-degrees-of-freedom ratio was 0.99, the CFI and TLI both reached 1.00, and the RMSEA was 0.00. These indices indicate that the proposed SEM model was well supported by the data and adequately represented the structural relationships among SEC, SEF, and SAG.

It is important to note that the fit indices for both the measurement and structural models were exceptionally high, with CFI and TLI reaching 1.00 and RMSEA approaching 0.00 (see Tables 3 and 7). While such values indicate an excellent statistical fit, near-perfect indices can sometimes reflect an over-identified or relatively parsimonious three-factor model rather than unambiguous evidence of model superiority (Marsh, Hau, & Wen, 2004). Readers are therefore encouraged to interpret these fit statistics as supportive rather than definitive evidence of model adequacy, and future studies are recommended to

cross-validate the model using independent or larger samples.

Overall, quantitative results show that SEC, SEF, and SAG were all reported at high levels and were strongly interconnected. The descriptive statistics and reliability analysis indicate that the three constructs were measured consistently and showed positive overall levels. The correlation analysis confirmed significant positive associations among all variables. The CFA results supported the adequacy of the three-factor measurement model, while the SEM findings demonstrated that SEC significantly predicted SEF and SAG, and that SEF also significantly predicted SAG. In addition, self-efficacy partially mediated the relationship between social emotional competence and self-agency. These findings provide quantitative support for the proposed interconnection among the three constructs in the digital EFL environment.

1) Qualitative Results

To enrich the quantitative findings, semi-structured interview responses from 20 selected participants were analysed using thematic analysis. The analysis generated five major themes, they are: emotional challenges in online learning, variations in self-confidence, different levels of learner autonomy, the role of the learning environment, and adaptive coping strategies.

Table 7. Thematic Analysis

Theme	Description	Indicative Pattern
Emotional challenges	Students experienced stress, confusion, frustration, and anxiety	Difficulty handling unclear tasks and technical issues
Self-confidence	Students varied in confidence to understand and perform online tasks	Hesitation vs active participation
Learner autonomy	Students differed in their ability to direct their own learning	Dependence on lecturer vs self-directed learning
Learning environment	Participation was shaped by teacher support and classroom atmosphere	Passive class reduced engagement
Adaptive coping	Students used different strategies to handle pressure and distraction	Passive avoidance vs active adjustment

B. Emotional Challenges in Online Learning

A major theme emerging from the interview data was that online English learning was often accompanied by stress, confusion, frustration, and nervousness. Participants described emotional discomfort when they faced unclear instructions, difficult tasks, unstable internet connections, or technical disruptions. Some reported that these conditions reduced their concentration and delayed task completion. Students with lower profiles tended to describe emotional challenges as something that

interrupted learning significantly. They often needed time to recover before continuing. In contrast, students with higher profiles acknowledged similar challenges but described more controlled responses, such as pausing, calming themselves, and resuming the task gradually. Students with weaker social-emotional competence were more likely to be disrupted by emotional pressure, while students with stronger competence were better able to remain calm and continue learning.

C. Variations in Self-Confidence

The interview data also revealed clear differences in self-confidence. Some participants expressed strong belief in their ability to understand online materials, solve problems, and complete tasks independently. Others were more hesitant, especially in relation to speaking in online discussions, asking questions, and giving presentations. A recurring point was that students were often more confident in completing written tasks than in participating verbally in online settings. Several participants explained that they feared making mistakes or giving incorrect answers in front of others. This shows that confidence was not uniform across all learning activities. Confidence influenced not only academic performance but also willingness to participate, ask questions, and remain engaged in online learning activities.

D. Different Levels of Learner Autonomy

Another important theme concerned how far students actually took control of their learning. Higher-profile participants described self-directed behaviours such as searching for additional materials, changing ineffective strategies, setting learning goals, and monitoring their own progress. They viewed online learning as requiring personal responsibility. By contrast, lower-profile participants tended to rely heavily on lecturer instructions. They reported inconsistent study routines, limited initiative to find supplementary materials, and reluctance to take the lead in class discussions or group work. This indicates that learner autonomy was present in varying degrees rather than equally distributed across participants.

E. The Role of the Learning Environment

The interviews consistently showed that the learning environment shaped students' participation. Participants reported being more willing to ask questions or contribute ideas when lecturers gave clear instructions, encouraged interaction, and created a non-judgmental atmosphere. Conversely, passive classes and unclear directions discouraged participation. This theme suggests that agency and confidence are not only individual characteristics but are also affected by how online learning is organized. Even students with moderate or high capability may participate less in environments that do not actively invite engagement. The findings indicate that supportive pedagogy, clear instructions, and interactive activities are critical in helping students become more confident and active learners online.

F. Adaptive Coping Strategies

The final theme concerned the strategies students used to cope with online learning challenges. Lower profile participants often described passive responses, such as waiting, postponing work, or simply enduring difficulty. Moderate profile participants used practical but limited strategies, such as rereading materials or asking friends for help. Higher-profile participants reported more adaptive coping, including reorganizing schedules, breaking tasks into smaller parts, changing learning methods, reducing distractions, searching for alternative resources, and preparing before presentations. This theme suggests that successful online learning depends not only on having confidence or responsibility in principle, but also on translating these qualities into concrete actions. Adaptive coping strategies appear to connect the three constructs of the study, they are students regulate emotions, maintain confidence, and exercise agency through deliberate action.

The present study aimed to map the interconnection of social emotional competence (SEC), self-efficacy (SEF), and self-agency (SAG) in the digital EFL environment. The findings reveal that these three constructs were not only reported at relatively high levels, but were also positively and significantly associated with one another. Taken together, the results suggest that students' emotional competence, confidence, and learner agency form an interconnected system that supports their engagement in online English learning. This interpretation is consistent with prior literature showing that social-emotional learning is associated with improved academic and behavioural outcomes and that agency for learning is closely related to self-efficacy and self-regulation (Code, 2020; Durlak et al., 2011).

First, the descriptive findings indicate that the participants generally perceived themselves as emotionally capable, confident, and agentic in the digital learning context. The high mean scores for SEC, SEF, and SAG suggest that students tended to see themselves as able to manage emotions, handle online learning tasks, and take responsibility for their own learning. This pattern may reflect the increasing familiarity of students with online learning environments, particularly in contexts where digital instruction has become a regular part of educational practice. However, although the means were high overall, the qualitative findings demonstrate that this positive profile should not be interpreted as the absence of difficulty. Many students still reported confusion, frustration, hesitation, and inconsistency in actual online learning situations. This indicates that positive self-perceptions coexist with practical challenges, especially in emotionally demanding or less structured learning conditions. Such a pattern is compatible with recent EFL and online-learning studies showing that students may report positive online learning dispositions while still experiencing emotional and strategic difficulties in practice (Zheng & Xiao, 2023). This apparent paradox can

be explained in at least two complementary ways. First, the SEF and SAG questionnaires captured students' general, trait-like beliefs about their overall capability and initiative, whereas the interview data captured situational, moment-to-moment emotional reactions to specific technical or instructional difficulties; the two sources of data therefore tap different layers of experience rather than contradicting one another. Second, self-report Likert-scale instruments are susceptible to social-desirability and self-presentation tendencies, which may inflate average ratings on broad, decontextualized items relative to the more candid accounts elicited through semi-structured interviews (Nederhof, 1985). Taken together, these explanations suggest that students can hold a generally confident self-concept while still encountering specific episodes of stress and confusion during digital EFL learning.

Second, the positive relationship between SEC and SEF suggests that students who are better able to regulate emotions and respond constructively to learning challenges also tend to feel more confident in their academic capabilities. This finding is meaningful because online learning often places students in situations that require emotional endurance, such as unclear instructions, technical problems, isolation, or reduced immediate support from teachers and peers. In such contexts, emotional competence may help students remain stable, persistent, and cognitively engaged, which in turn strengthens their sense of self-efficacy. The qualitative findings support this interpretation: participants who described greater emotional control also tended to express stronger confidence in understanding materials, completing tasks, and managing learning demands. By contrast, those who were easily overwhelmed by online challenges often reported hesitation and lower confidence. Thus, the findings imply that emotional competence is not merely a social or affective asset, but also an important foundation for academic confidence in digital EFL learning. This interpretation is in line with SEL research demonstrating links between social-emotional competence and academic functioning, as well as online EFL research showing that self-efficacy is strengthened when learners can regulate demands effectively (Durlak et al., 2011; Koçak & Göksu, 2023).

Third, the strongest correlation and one of the strongest structural paths in the study were found between self-efficacy and self-agency. This suggests that confidence in one's learning ability plays a central role in shaping the degree to which students act autonomously in online learning. In other words, students are more likely to take initiative, organize their study, seek additional resources, and manage their own progress when they believe they are capable of succeeding. This finding is particularly relevant in digital EFL settings, where learning often requires greater independence and self-regulation than face to face instruction. The qualitative data further illustrate this point. Students who reported greater confidence were also more

likely to describe proactive learning behaviours, such as adjusting ineffective strategies, preparing for presentations, and looking for extra materials independently. In contrast, students with lower confidence tended to depend more heavily on lecturer guidance and were less likely to initiate participation. This suggests that self-efficacy may operate as a motivational driver that transforms belief into action. This explanation aligns with research on agency for learning and with empirical studies showing that self-efficacy predicts self-regulated learning and engagement in EFL and online learning contexts (Fang, Meng, Tang, & Cui, 2025)

Fourth, the SEM findings provide a more integrated explanation of how the three constructs relate to one another. The results show that SEC significantly predicted SEF, and that both SEC and SEF significantly predicted SAG. In addition, the indirect effect of SEC on SAG through SEF indicates that self-efficacy functioned as a partial mediator. This means that social emotional competence contributed to self-agency both directly and indirectly by strengthening students' confidence. Such a pattern is theoretically important because it suggests that learner agency does not emerge only from personal responsibility or external demands, but is also rooted in emotional regulation and self-belief. In the digital EFL environment, where students are required to respond independently to both academic and technical challenges, emotional competence may support confidence, and confidence may then foster more active, agentic learning behaviour. This layered relationship helps explain why some students adapt more successfully to online learning than others. This interpretation is consistent with theoretical work that conceptualizes agency as intertwined with intention, motivation, self-efficacy, and self-regulation, as well as with recent EFL evidence that teacher support and self-efficacy are linked to online engagement and flow (Code, 2020; Zheng & Xiao, 2023)

The interview findings showed that students' experiences in the digital EFL environment were shaped by five recurring themes: emotional challenges in online learning, variations in self-confidence, different levels of learner autonomy, the role of the learning environment, and adaptive coping strategies. Taken together, these themes suggest that students' online English learning cannot be understood only in terms of language ability or access to technology. Instead, their experiences reflect the interaction of emotional regulation, confidence, agency, and contextual support. This interpretation is consistent with prior research showing that social-emotional and motivational factors are closely tied to academic performance and adjustment in technology-mediated learning

G. Theme 1. Emotional Challenges in Online Learning

The first theme showed that many participants experienced stress, confusion, frustration, and nervousness during online English learning, especially when tasks were

unclear or when technical problems interrupted learning. This finding suggests that emotional strain remains a key feature of digital EFL learning, even when students generally report positive overall attitudes. The pattern aligns with recent qualitative evidence from university EFL learners, where anxiety and frustration were strongly linked to technology-related challenges and abrupt changes in learning conditions. That study also found that instructor behaviour and learning design played an important role in reducing emotional strain and helping students adapt. In this sense, the present findings reinforce the view that emotional regulation is not peripheral to online language learning, but part of the core process through which learners remain engaged and academically functional (Zheng & Xiao, 2023). From a theoretical perspective, this theme suggests that social emotional competence operates as a learning resource in online contexts where uncertainty is common. Students who can regulate frustration and remain calm in the face of confusion may be better positioned to continue learning rather than withdraw from the task. This interpretation is supported by the broader SEL literature, which has consistently shown that stronger social-emotional skills predict better academic adjustment and performance. Accordingly, the emotional challenges described by the interview participants should be understood not as isolated reactions, but as part of a wider relationship between socio-emotional functioning and learning success (Durlak et al., 2011)

H. Theme 2. Variations in Self-Confidence

The second theme revealed marked differences in students' confidence when learning English online. Some participants felt capable of understanding materials and completing assignments independently, whereas others hesitated to ask questions, speak in class, or present online. This distinction is important because it suggests that self-efficacy in the digital EFL environment is not uniform across tasks. Students may feel confident in private, text-based work but less confident in interactive or performance-oriented activities such as discussion and presentation. This interpretation is consistent with recent EFL research showing that online learning self-efficacy is positively associated with self-regulated learning, satisfaction, and engagement. In one structural model of EFL students, online self-efficacy had a significant positive effect on self-regulated learning; in another digital EFL study, online self-efficacy served as a key mediator between informal digital learning and engagement (Nguyen & Tran, 2023). The interview findings therefore support the idea that self-efficacy is more than a general feeling of competence; it is a mechanism that shapes whether students participate actively or remain passive. This is also compatible with broader research on online language learning, where higher self-efficacy has been linked to stronger motivation, better academic outcomes, and deeper engagement (Code, 2020). In the present study, students who expressed higher confidence also tended to

describe more active learning behaviours, which suggests that self-efficacy helped transform potential ability into actual participation.

I. Theme 3. Different Levels of Learner Autonomy

The third theme concerned different levels of learner autonomy and agency. Higher profile participants described searching for additional materials, setting goals, adjusting ineffective strategies, and taking responsibility for their progress. Lower profile participants, by contrast, reported heavier reliance on lecturer direction and less consistent self-management. This pattern closely matches previous work on learner agency in online EFL settings. A qualitative study of online EFL learners in Indonesia found that learner agency was essential for adjusting to online learning and was shaped by factors such as participation, motivation, self-efficacy, teacher support, and peer support (Farmasari, Ali Wardana, Ade Riyanto, & Satria Elmiana, 2025). This theme also aligns with the growing literature on self-regulated learning in EFL contexts. Viewed in this light, the interview findings indicate that learner agency in digital EFL classrooms depends not only on willingness, but also on students' capacity to regulate learning routines and sustain independent action over time.

J. Theme 4. The Role of the Learning Environment

The fourth theme highlighted the influence of the learning environment, especially lecturer support, clarity of instruction, and classroom interaction. Participants repeatedly stated that they were more willing to ask questions, speak, or participate when the class atmosphere felt clear and supportive. This finding is strongly supported by recent online EFL studies. A large study of virtual-classroom language learning found that environmental support, learner attitude, and readiness were closely connected to motivation and engagement, with learner readiness mediating important parts of that relationship. Similarly, a mixed-method EFL study found that perceived teacher support and academic self-efficacy both positively predicted online learning engagement, and that self-efficacy mediated the relationship between teacher support and engagement (Gutiérrez-Ángel, Sánchez-García, Mercader-Rubio, García-Martín, & Brito-Costa, 2022). The present interviews therefore suggest that emotional competence, self-efficacy, and agency are not purely internal qualities. They are also context-sensitive capacities that can be strengthened or weakened by pedagogy. When lecturers provide clear guidance, useful feedback, and autonomy-supportive interaction, students appear more likely to feel emotionally secure, confident, and agentic.

K. Theme 5: Adaptive Coping Strategies

The fifth theme concerned adaptive coping strategies. Some participants responded to difficulty passively, by delaying work or waiting for help, while others described more strategic behaviours such as changing study methods, breaking tasks into manageable steps, finding

extra resources, and reducing distractions. This difference is analytically important because it suggests that successful online EFL learners are not necessarily those who face fewer obstacles, but those who respond to obstacles more effectively. Recent qualitative and intervention-based studies support this interpretation. Research on EFL learners' emotional challenges found that learners gradually built resilience and confidence through coping strategies, while experimental work on self-regulation strategies showed gains in self-efficacy and related learning outcomes (Zheng & Xiao, 2023). Across the five themes, the interview data suggest that social emotional competence, self-efficacy, and self-agency are mutually reinforcing rather than separate dimensions.

Several limitations of this study should be acknowledged. First, although the sample size was adequate for the planned structural equation modelling, participants were drawn exclusively from two private universities in Jakarta, Indonesia, which limits the generalizability of the findings to students in public universities or in other regions with different institutional and technological infrastructures; future research should replicate this study using more geographically and institutionally diverse samples (Etikan, Musa, & Alkassim, 2016). Second, the quantitative data relied on self-report Likert-scale instruments which, despite demonstrating strong reliability and validity in the present sample, remain susceptible to social-desirability bias and may not fully capture the situational emotional fluctuations evident in the qualitative interviews (Nederhof, 1985). Third, the cross-sectional design does not allow causal conclusions to be drawn about the directional relationships among SEC, SEF, and SAG; longitudinal or experimental designs are recommended to clarify causal ordering. Finally, although the measurement and structural models demonstrated excellent fit, the near-perfect values obtained warrant cautious interpretation and replication in independent samples (Marsh, Hau, & Wen, 2004).

IV. Conclusion

This study aimed to explore the interconnection among social-emotional competence, self-efficacy, and self-agency in digital EFL learning and to highlight their significance in shaping students' engagement in technology-mediated language education. The findings suggest that these three constructs are meaningfully connected, indicating that learners' success in digital English learning is influenced not only by their academic abilities but also by their emotional regulation, confidence, and capacity to take initiative. In particular, self-efficacy appeared to play a central role in strengthening self-agency, implying that students who believe in their ability to manage digital learning tasks are more likely to participate actively and direct their own learning. These results reinforce the importance of viewing learner

development in digital EFL contexts from a holistic perspective that integrates emotional, motivational, and agentic dimensions. The study also offers practical value by suggesting that teachers and institutions should create digital learning environments that foster emotional support, build learners' confidence, and encourage greater autonomy. Beyond its immediate findings, the study points to a possible avenue for future research, namely that self-efficacy may function as a mediating mechanism between social-emotional competence and self-agency. Further studies with broader samples and more advanced analytical models are needed to test this possibility and to deepen understanding of learner psychology in digitally mediated language learning.

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