

The Role of Emotional Intelligence in Fostering Collaborative Learning in Algerian EFL Higher Education

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Abstract

Keywords:

Algerian higher education, collaborative learning, EFL students, emotional intelligence

The present paper investigates the relationship between emotional intelligence (EI) and collaborative learning (CL) among first-year English students at Khenchela University, Algeria. It combined survey data from 39 students and a group work assessment with interviews of five EFL university professors. The Schutte Self-Report Emotional Intelligence Test (SSEIT) and the Collaborative Learning Survey (CLS) were used. Pearson's correlation analysis revealed a strong positive relationship between EI and CL ($r = 0.885$, $p < 0.001$), with EI accounting for 78% of the variance in CL performance. This suggests that students with higher EI levels tend to excel in collaborative tasks. Teacher interviews; however, revealed several implementation challenges, including inconsistent EI assessment methods, students' struggle with frustration and introversion during teamwork, and the lack of standardized protocols for evaluating emotional competencies.

1. Introduction

Cognitive skills play a role in classroom performance, yet academic success requires more than mere intelligence. Emotional intelligence (EI) has emerged as a key factor in shaping collaborative learning outcomes and particularly in EFL environments.

Although intellectual abilities contribute to learning, they do not guarantee academic achievement, personal growth, and enduring job satisfaction.

Emotional intelligence (EI) encompasses the ability to perceive one's own emotions and those of others. It can be characterized as having abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope (Goleman, 1995). These competencies are not just psychological virtues; they are essential to effective collaborative learning.

While families contribute to emotional development, their influence is often indirect and counterproductive. Schools, particularly in EFL contexts where collaborative tasks are essential to language acquisition, now bear a dual responsibility as they ought to teach language skills and support the emotional development that make collaboration possible.

This need is especially important in EFL programs of Algerian universities, where collaborative learning is emphasized but often faces several emotional challenges.

Students may participate in group discussions, peer reviews, and project-based activities; however, they struggle with shyness, frustration, and above all a difficulty in expressing emotions. As a matter of fact, these barriers undermine collaboration among students. Consequently, this study aims to examine the relationship between EI and CL, and to assess the baseline levels of both competencies among first-year EFL students at the University of Khenchela, Algeria.

This research is significant because it addresses the critical role of emotional intelligence in collaborative learning outcomes of first-year EFL students. By investigating how students' EI levels influence their collaborative learning skills and build trust in group settings, the findings will empower educators to design targeted interventions that encourage emotionally intelligent learners.

The study is guided by the following research questions:

- What is the emotional intelligence (EI) level of first-year EFL students at Khenchela University?
- What is the collaborative learning (CL) level of these students?



- Is there any significant relationship between EI and CL?

2. Literature Review

2.1. Emotional Intelligence

Emotional intelligence (EI) is the process involved in the recognition, use, understanding, and management of one's own and others' emotional states to solve emotional problems and regulate behavior (Salovey et al., 2007).

Mayer et al. (2004) define EI as “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (p. 200). They claimed that individuals' emotions and feelings impact their thinking, the subjects they ponder, and their behaviors.

Leuner (1966) was the first to record EI's potential for personal development. His work was later expanded by Beasley (1987) and Payne (1986), who further developed EI's theoretical and practical framework.

Academicians in the 1980s integrated different types of intelligence through the models proposed by Gardner (1983) and Sternberg (1985). The link between emotions and cognition became stronger during this period. This resulted in the development of foundational EI frameworks by Salovey and Mayer (1990). The concept of EI gained widespread attention with the release of Goleman's bestselling book *Emotional Intelligence* in 1995.

Parker et al. (2004) associated EI with educational outcomes, including students' ability to adapt in group settings and teachers' success in creating inclusive classrooms. Nonetheless, the field of EI has face criticism for cultural biases in emotion recognition tasks and the necessity for EI training to develop 21st-century competencies such as digital literacy (Matthews et al., 2002).

2.2. Collaborative Learning

Collaborative learning (CL) emerged as a key educational approach for developing the teamwork skills needed in today's world. It is a pedagogical approach where learning groups work collectively to solve problems, complete a task, or create a project (Brody & Davidson, 1998).

Johnson (2009) identifies three relational dynamics in collaborative settings: learners may promote each other's success, hinder it, or operate

independently. Effective collaborative learning leverages the first dynamic, fostering interdependence through tasks that demand collective reasoning and accountability.

According to Taggart and Wheeler (2023) collaborative learning is primarily associated with constructivism, where learners create their own knowledge. It is also connected to social learning theory through the interaction within a team and is more age-appropriate for college students. CL involves the activities and the process of sharing ideas and experiences between students. Indeed, students learn better when they are in groups where they try new ways of learning with their peers. In addition, CL can reduce absenteeism because students feel a responsibility to the group.

However, the rise of digital learning environments introduces new considerations. Akinoso (2024) notes that “virtual learning may limit students' opportunities for social interaction and the development of social skills. [...] The absence of these social interactions can impact students' social-emotional development and ability to work effectively in teams” (p. 41). This highlights a critical challenge in achieving the social benefits of CL in fully online settings.

2.3. The Impact of Emotional Intelligence on Collaborative Learning

Several studies have showed that emotional intelligence facilitates effective collaborative learning across different educational settings. Recent academic works indicate that EI enhances students' ability to work in teams, manage conflicts, and build stronger peer relationships.

Fuertes-Meza et al. (2025) examined EI's influence on high school students' collaborative work. They found that skills like emotional awareness, self-control, and social awareness improve cooperative learning outcomes. Their theoretical analysis suggested that integrating EI into the classroom helps students manage both schoolwork and social situations more effectively.

Shafiq et al. (2025) carried out a study with 605 secondary students. They revealed a positive correlation between socio-emotional intelligence and collaboration. Learners with higher EI showed improved teamwork skills and enhanced academic results. The authors highlighted the need to integrate EI in the development of educational curricula.

The importance of EI extends to higher education as well, as shown by Siahaan et al. (2024) who

demonstrated how EI and collaboration skills enhance job satisfaction and performance among university lecturers. Their research identified collaboration ability as the strongest predictor of professional efficiency. They asserted that educators with high levels of EI are better equipped to manage group work and foster productive learning environments.

Finally, Rostampour and Niroomand's (2023) study explored EI's impact on language learning. The authors identified adaptability as a key component of EI and argued that it is the strongest predictor of listening comprehension performance in EFL learners.

The above studies establish emotional intelligence as a fundamental factor in successful collaborative learning across different educational levels and contexts. However, further research is needed in specific contexts. In particular, little is known about how this relationship works among EFL students in Algerian universities, where cultural and teaching practices may shape students' collaboration.

3. Research methodology

3.1. Population and Sample

The present study was conducted with 39 first-year EFL students at the University of Khenchela, Algeria, (N = 39). We picked the sample of random 39 students from two groups to represent the population. They completed both the emotional intelligence (EI) and the collaborative learning (CL) questionnaires.

3.2. Research Design

The study relied on a mixed-methods convergent parallel design to investigate the relationship between Emotional Intelligence (EI) and Collaborative Learning (CL) skills among first-year EFL students at Khenchela University. We hypothesized that there is a significant relationship between EI and CL by using a correlational design.

3.3. Research Instruments

The study used three tools to gather data:

- Schutte Self-Report Emotional Intelligence Test (SSEIT),
- Collaborative Learning Survey (CLS),
- and semi-structured interviews with five permanent professors at the English Department of Khenchela University.

3.4. Data Analysis

The quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS). The

qualitative interview data were transcribed and analyzed thematically using Nvivo.

Responses of the survey were recorded on Likert scales (e.g., Strongly Disagree to Strongly Agree) and open-ended questions. To ensure internal consistency, a reliability analysis was conducted, yielding a Cronbach's alpha of 0.865 (Table 2) and indicating excellent reliability. All items demonstrated strong correlations with the total score (Table 2), confirming their contribution to the scale's consistency.

The collaborative learning scale (10 items) had a mean score of 34.93 (SD = 7.36), with item means ranging from 30.79 to 32.14. Internal consistency for the scale was good (Cronbach's $\alpha = .845$). Corrected item-total correlations ranged from .167 to .862, indicating that most items contributed adequately to the scale reliability. Items with the lowest contribution were "Prefer leadership role" ($r = .167$), whereas items like "CL helped work effectively in groups" showed the highest contribution ($r = .862$). The Full item-level statistics are available in Appendix A.

4. Results

4.1. Descriptive Statistics

Descriptive statistics indicated that participants demonstrated generally high levels of both emotional intelligence (EI) and collaborative learning (CL). EI scores ranged from 114 to 159 (M = 141.66, SD = 12.02). CL scores ranged from 20 to 53 (M = 36.93, SD = 10.30).

Table 1

Descriptive Statistics for EI and CL

	N	Min.	Max.	Mean	Std. Deviation
EI_total	39	114.00	159.00	141.66	12.02
CL_total	39	20.00	53.00	36.93	10.30

Reliability analysis confirmed excellent internal consistency for the collaborative learning scale (Cronbach's $\alpha = .865$).

Table 2

Reliability Statistics for Collaborative Learning Scale

Cronbach's Alpha	N of Items
.865	10

4.2 Relationship between Emotional Intelligence and Collaborative Learning

A Pearson correlation analysis revealed a statistically significant, very strong positive relationship between emotional intelligence (EI) and collaborative learning (CL) scores, $r = .885, p < .001$. This suggests that students with higher EI tend to perform significantly better in collaborative settings, with EI explaining approximately 78% of the variance in CL outcomes. These findings underscore the potential value of integrating EI training into pedagogical strategies to enhance group-based learning.

Table 3

Pearson Correlation between EI and CL

Variable	EI	CL
EI	1	.885**
CL	.855**	1

** . Correlation is significant at the 0.01 level (2-tailed).

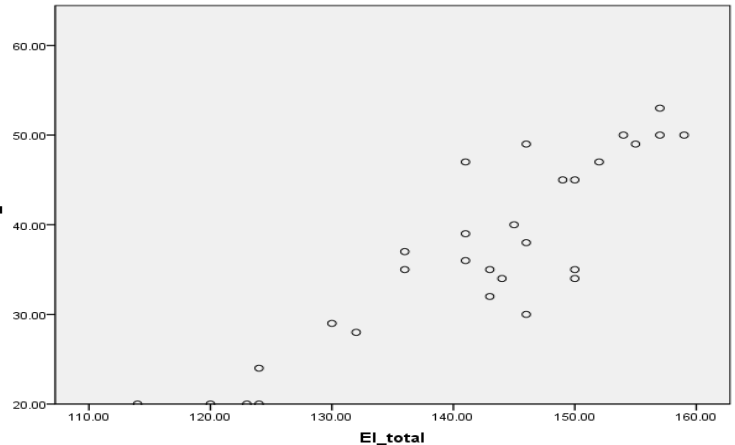
Table 4

Themes, Sub-themes, and Codes (Nvivo)

General Themes	Sub-Themes	Basic themes (Codes)		
1. Teacher Perceptions of EI	a. familiarity with EI	Q: Are you familiar with the concept of Emotional Intelligence (EI)? "T1, T2, T3, T4, T5": Yes		
	b. Teachers' definitions of EI	T1: The innate feel of socializing and skill in mingling with different categories of people's personalities. T2: It is the ability to control your own emotions and understand those of others T3: Skills to interpret our and others' emotions T4: It is the ability to recognize, understand, manage, and influence one's own emotions and the emotions of others T5: the capacity of being aware of your emotions as a tool that might help in your EFL learning process		
	c. Key Indicators of EI	Use of emotions for learning Self-awareness and self-regulation (T2, T4) Empathy and social skills (T2, T4, T5)		
	d. Variability in EI Assessment	Poor EI	Moderate EI	Indecision in height EI assessment
	e. Challenges in Observing EI	T1: Cannot decide, hard to assess T5: Yes but not in a scientific way there is No protocol to follow while observing EI		
2. Collaborative Learning (CL) Competence and Challenges	a. Mixed CL Skill Levels	Strengths: 1. Teamwork enthusiasm 2. High collaboration 3. comfort zone		Weaknesses: 1. Low motivation 2. agreement challenges 3. participation gaps
	b. Group Work Obstacles	Miscommunication (T3). Introversion, shyness (T5). Diverse learning styles (T1)		
3. EI-CL Interrelationship	a. Positive EI-CL Correlation	Self-confidence boosting participation Empathy enhancing group cohesion Communication skills aiding collaboration		
	b. Low EI Hindering CL	Poor conflict resolution Frustration during tasks Emotional withdrawal		
EI Development and Pedagogical	a. Teacher Beliefs in EI's Role	Interaction facilitation EI training benefits		

Figure 1

Scatter plot illustrating the strong positive linear relationship between emotional intelligence and collaborative learning scores.



4.3. Qualitative Findings: Analysis of Teachers' Interviews

Reflexive thematic analysis of semi-structured interviews generated five themes as shown in Table 4.

After generating the initial codes, the researchers named and defined the themes as shown in Table 5.

Practices	b. Limited EI Integration in Teaching	No structured approach (T1, T3, T4). Discussion-based activities (T2). Ad-hoc methods
5. Contextual and Cultural Factors	No Reported Cultural Influences	Unobserved gender dynamics (T1, T2)
		No language barriers noted (T3, T4, T5)

Table 5

Themes and their Description

Theme	Description
Teacher Perceptions of EI	This theme captures teachers' understanding of EI and their evaluations of students' EI levels. It includes teachers' definitions of EI (e.g., self-awareness, empathy, emotion regulation) and their observations of variability in students' EI, ranging from "high" to "very poor." Sub-themes highlight assessment inconsistencies and key EI indicators like social skills and emotional awareness.
Collaborative Learning (CL) Competence and Challenges	This theme centers on educators' assessments of students' abilities to collaborate, highlighting both strengths and weaknesses. It also points out situational obstacles in group activities, such as shyness or differing learning preferences, that impede successful collaboration.
EI-CL Interrelationship	This theme investigates the perceived relationship between emotional intelligence (EI) and collaborative learning (CL). Educators observed that elevated EI traits (such as empathy and self-assurance) promote teamwork by improving communication and fostering group unity, which is in line with the quantitative data showing a positive correlation. In contrast, traits associated with low EI (like frustration and introversion) were associated with difficulties in CL, such as ineffective conflict resolution.
EI Development and Pedagogical Practices	This theme addresses teachers' beliefs about EI's role in improving CL and their current practices. While most acknowledged EI's importance, few reported structured activities to develop it. Sub-themes contrast ad-hoc methods (e.g., discussions) with the lack of formal protocols, suggesting a gap in systematic EI integration.
Contextual and Cultural Factors	This theme examines whether cultural or institutional factors at Khenchela University influence EI or CL. Teachers unanimously reported no observable cultural barriers (e.g., gender dynamics, language issues), positioning EI and CL as universal skills unaffected by local context in their view.

Theme 1: Teacher Perceptions of Emotional Intelligence (EI)

All teachers unanimously affirmed familiarity with EI (T1–T5: "Yes"), and definitions broadly aligned with core components (e.g., T2: "control your own emotions and understand others"; T4: "recognize, manage, and influence emotions"). However, assessments of student EI levels diverged markedly: T3 perceived students as having "high" skills to interpret emotions, while T2 and T4 described "moderate" competence. In contrast, T5 critiqued students' "very poor" emotional awareness, and T1 expressed uncertainty ("Cannot decide, hard to assess!"). The resultant theme—Teacher Perceptions of EI—underscored a tension between theoretical awareness and inconsistent praxis.

Theme 2: Collaborative Learning (CL) Competence and Challenges

Building on the variability in EI assessments identified in Theme 1, thematic analysis uncovered polarized CL competencies among students, with strengths and weaknesses directly tied to observable EI traits. Teachers unanimously acknowledged students' enthusiasm for collaboration (T1: "love teamwork"; T4: "high collaborative skills"), with T4 explicitly linking this strength to EI-derived traits like "self-confidence and social skills." Conversely, significant challenges were attributed to low EI indicators: T3 reported "low collaborative learning" due to "miscommunication and no motivation," while T5 attributed group work struggles to students' "introversion and shyness." For instance, T4's students—described as having "high social skills" (a high-EI trait)—aligned with stronger CL outcomes, whereas T5's critique of "shyness" (low EI) mirrored quantitative results showing weaker collaboration in low-EI cohorts. The interplay between EI variability and CL outcomes underscored the need to examine

specific EI components shaping collaboration, a gap addressed in Theme 3.

Theme 3: EI-CL Interrelationship

Thematic analysis culminated in a robust narrative confirming the interdependence of EI and CL. Iterative coding of teacher interviews delineated two subthemes: EI as a facilitator of collaboration and low EI as a barrier. Teachers overwhelmingly (4/5) identified high EI as critical to CL success, exemplified by T2's observation of empathy-driven cohesion ("Students stand by each other... defend classmates based on trust") and T4's emphasis on self-regulation ("high self-confidence in responding to questions"). Conversely, low EI was directly linked to CL breakdowns: T1 noted frequent "frustration" disrupting group work, while T5 highlighted students' reactive (vs. proactive) emotional management ("used EI to de-stress before exams but lacked [skills] during collaboration"). The triangulation of qualitative and quantitative data conclusively validated the hypothesis, demonstrating that EI's presence amplifies collaborative efficacy, while its absence exacerbates conflict.

Theme 4: EI Development and Pedagogical Practices

Thematic analysis concluded with a critical tension between teachers' recognition of EI's pedagogical value and the absence of systematic implementation. Despite consensus on EI's importance (T4: "Improving EI facilitates interaction"; T5: "Training students to control emotions would benefit collaborative skills"), coding revealed stark disparities in classroom practices. Three teachers admitted to ad-hoc or nonexistent EI cultivation: T1 stated they "never incorporated EI activities", T3 outright rejected EI exercises ("No"), and T5 lamented the lack of "protocol to follow while observing EI." This systemic neglect, embodied in T5's "no protocol" critique, explains why even high-EI students (Theme 3) lacked proactive emotional management during collaboration. By exposing this pedagogical-practical divide, the analysis underscores the urgency of research into culturally and contextually responsive EI frameworks.

Theme 5: Contextual and Cultural Factors

Thematic analysis concluded with a critical exploration of sociocultural influences. Following reflexive coding of teacher interviews, no evidence emerged to suggest cultural, linguistic, or gender-based factors impacted students' EI development or

collaborative outcomes. All teachers unanimously dismissed contextual influences: T1 stated they "have not observed cultural factors," while T2–T5 categorically rejected gender or language barriers ("No"). T4's earlier emphasis on "self-confidence" (Theme 3) as a CL driver and T5's critique of "no protocol" (Theme 4) were interpreted as universal pedagogical challenges, not culture-bound phenomena. While this finding does not negate the need for culturally adaptive EI frameworks in future research, it defends the study's internal validity, insulating its conclusions against critiques of contextual bias.

5. Discussions

The results showed that EI and CL have a significant positive correlation, which confirms a strong, significant EI-CL relationship ($r^* = 0.885$), supporting Goleman's assertion that EI enhances collaboration. While teachers' observations of empathy-driven cohesion (T2) and self-regulated participation (T4) align with Mayer and Salovey's ability model, which prioritizes emotion regulation in social contexts. The correlation's strength surpasses prior studies such as Parker et al study (2004), likely due to the research context.

The quantitative analysis revealed a strong positive correlation between emotional intelligence (EI) and collaborative learning (CL) ($r^* = 0.885$, $p^* < 0.001$), with EI explaining 78% of CL variance. This statistical relationship was contextualized by qualitative themes, which interpret why and how EI shapes CL. For instance, while teachers universally recognized EI's importance (Theme 1), their inconsistent assessments of students' EI levels (e.g., T1's uncertainty, T5's critique of "no protocol") mirrored the moderate variability in EI scores (Mean = 141.66). This inconsistency underscores systemic gaps in evaluating EI, which likely constrained the correlation's strength.

Qualitative findings further clarified the mechanisms behind the EI-CL link. Teachers attributed strong CL outcomes to high-EI traits like empathy (T2: "students defend classmates based on trust") and self-regulation (T4: "high self-confidence in responding to questions"), directly aligning with the quantitative model's prediction. In contrast, low EI indicators, such as frustration (T1) and introversion (T5), were linked to CL breakdowns, explaining why students with poor emotional regulation scored lower in collaborative tasks.

Thematic analysis also highlighted pedagogical gaps. Despite valuing EI, teachers lacked structured methods to cultivate it (Theme 4). This disconnection between theory and practice suggests that institutional support for EI training could amplify the observed correlation. Finally, the absence of cultural influences (Theme 5) reinforces the intrinsic nature of the EI-CL relationship, insulating findings from critiques of contextual bias. This may occur because the ability to recognize and control one's emotions helps in using them effectively during exams.

6. Conclusions

The present research aimed to investigate the relationship between students' emotional intelligence and their collaborative learning. Its primary focus was finding a significant association between the two variables.

The findings show that there is a significant positive relationship between students' emotional intelligence (EI) and their collaborative learning (CL) capabilities.

The EFL professors acknowledged EI as an essential element in shaping how the groups of students work together. They observed that students with higher EI demonstrated great empathy, communicated more effectively, and resolved conflicts during teamwork.

Nonetheless, evaluations of students' EI were irregular because of the lack of standardized evaluation instruments. This resulted in fragmented perceptions of EI levels that varied from "high" EI to "very poor." Issues like frustration, miscommunication, and introversion were associated with low EI, whereas self-confidence and social abilities became necessary for effective and successful collaboration.

Based on the current findings, the researchers suggest four main recommendations:

- Create EI evaluation models based on evidence,
- Integrate EI training for both students and educators,
- Apply strategies to improve emotional awareness during classroom interactions, and
- Conduct long-term studies by researchers to assess EI's impact on academic outcomes.

The study's generalizability is one of the significant limitations that the researchers have encountered. The sample drawn is from an extremely

specific demographic, which is first year EFL students and teachers of a single department, of a single university and a particular region, which makes the findings not applicable to other contexts. As educational environments vary in terms of resources, student population and curricular design, results from one context may not necessarily represent other contexts.

This study opens several paths for further research to deepen the understanding of EI and enhance the integration of it in language education. Future research should consider highlighting other various proficiency levels other than first year EFL students. This would help in the understanding on how emotional intelligence can be used to enhance students' collaborative learning and all the four skills.

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References

- Akinoso, S. O. (2024). Synchronous virtual learning in ubiquitous learning paradigm and effective mathematics teaching. *Educatia 21 Journal*, (27), Art. 03. <https://doi.org/10.24193/ed21.2024.27.03>
- Beasley, K. (1987). The emotional quotient. *Mensa*, 25, 25-27.
- Brody, C., & Davidson, N. (1998). (Eds.). *Professional development for cooperative learning: Issues and approaches*. SUNY Press.
- Fuertes-Meza, L. C., Farfán-Pimentel, J. F., García-Riveros, J. M., & Montellanos-Solis, A. R. (2025). Emotional intelligence and collaborative work in high school students: Theoretical analysis. *International Journal of Environmental, Sustainability, and Social Science*, 2(2), 88-93. <https://doi.org/10.38142/ijess.v2i2.78>
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

- Johnson, D. W. (2009). *Reaching out: Interpersonal effectiveness and self-actualization* (10th ed.). Pearson.
- Leuner, B. (1966). Emotionale Intelligenz und Emanzipation. *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 15, 193–203.
- Matthews, G., Zeidner, M., & Roberts, R. D. (2002). *Emotional intelligence: Science and myth*. MIT Press.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15(3), 197–215. https://doi.org/10.1207/s15327965pli1503_02
- Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences*, 36(1), 163–172. [https://doi.org/10.1016/S0191-8869\(03\)00076-X](https://doi.org/10.1016/S0191-8869(03)00076-X)
- Payne, W. L. (1986). *A study of emotion: Developing emotional intelligence; self-integration; relating to fear, pain and desire* (Publication No. 8623048) [Doctoral dissertation, The Union for Experimenting Colleges and Universities]. ProQuest Dissertations and Theses Global.
- Rostampour, M., & Niroomand, S. M. (2023). The predictive power of emotional intelligence components on listening comprehension task of male vs. female EFL learners. *Language Art*, 8(1). <http://languageart.ir/index.php/LA/article/view/324>
- Salovey, P., Brackett, M. A., & Mayer, J. D. (Eds.). (2007). *Emotional intelligence: Key readings on the Mayer and Salovey model*. Dude Publishing.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Shafiq, A., Naseem, A., & Fatima, S. G. (2025). Integrating social skills and learning: The role of socio-emotional intelligence in student collaboration. *Journal of Applied Linguistics and TESOL*, 8(1), 1544–1548. <https://jalt.com.pk/index.php/jalt/article/view/524>
- Siahaan, E., Dalimunthe, R. F., Lumbanraja, P., Zakaria, Z., Nawi, A. S., & Zulkarnain, S. H. (2024). The importance of collaborative ability and emotional intelligence in shaping job satisfaction and lecturer performance in the transformational era. *Qeios*. <https://doi.org/10.32388/URIRP2>
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge University Press.
- Taggart, J., & Wheeler, L. B. (2023). Collaborative learning as constructivist practice: An exploratory qualitative descriptive study of faculty approaches to student group work. *Active Learning in Higher Education*, 26(1), 59–76. <https://doi.org/10.1177/14697874231193938>

Appendix A

Item-Total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Overall positive experience	31.36	43.646	.662	.845
Ease of agreeing on meeting time	31.29	43.989	.641	.847
Ease of agreeing on meeting location	31.32	45.263	.462	.863
Group effectiveness	32.14	47.386	.665	.852
Enjoy working collaboratively	31.50	43.444	.487	.863
CL helped understand course materials	31.46	45.295	.513	.858
Prefer courses with collaborative learning	31.57	40.550	.801	.832
Get along with team members	31.86	38.720	.803	.830
Prefer leadership role	31.07	50.735	.167	.882
CL helped work effectively in groups	30.79	46.101	.862	.843

Appendix B

Semi-Structured Interview Protocol for Teachers

Appendix B presents the semi-structured interview questions used to explore five teachers' perceptions of emotional intelligence (EI), collaborative learning (CL), and the relationship between the two constructs among first-year EFL students at Khenchela University, Algeria.

1. Conceptual Understanding of EI

Are you familiar with the concept of Emotional Intelligence (EI)? How would you define it in your own words?

2. Observation and Assessment of EI

Do you observe or assess students' emotional intelligence during classroom or group activities? What specific behaviors or indicators help you identify students' EI levels?

3. Students' EI Levels

How would you describe the overall level of emotional intelligence among your first-year EFL students (e.g., high, moderate, low)? Can you provide examples of behaviors that reflect high or low EI in your classroom?

4. Collaborative Learning Skills

How would you describe your students' collaborative learning skills during group work? What strengths and weaknesses have you observed?

5. Challenges in Collaborative Learning

What challenges do students commonly face during collaborative learning tasks (e.g., communication difficulties, unequal participation, conflict)?

6. Relationship between EI and CL

In your experience, does emotional intelligence influence students' performance or participation in collaborative learning? Can you share an example where EI either facilitated or hindered group work?

7. Pedagogical Practices Related to EI

Do you incorporate activities aimed at developing students' emotional intelligence in your teaching practices? Why or why not? How do you encourage students to use EI-related skills (e.g., empathy, emotional regulation) during group work?

8. Contextual and Cultural Factors

Are there any institutional, cultural, gender, or language-related factors at Khenchela University that you believe influence students' emotional intelligence or collaborative learning?