The Influence of Social Interactions on Students' Satisfaction and Confidence in Pair Work among Arabic Learners

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ABSTRACT

Pair work is an effective instructional strategy in language education that fosters collaborative learning through social interaction. Despite extensive research, limited evidence exists on how social interactions influence learners' satisfaction and confidence in Malaysian contexts. This quantitative survey study investigated the influence of social interactions on satisfaction and confidence in pair work among 201 Arabic language learners in Malaysia (61% female, 39% male; 67% diploma, 33% bachelor's) using a 5-point Likert-scale questionnaire with five sections. Based on the results, educational level had a significant effect, with bachelor's students reporting higher levels of satisfaction and confidence than diploma students. Correlation analysis also revealed strong positive relationships between knowledge construction and satisfaction (r=0.823), social and cultural context and satisfaction (r=0.798), confidence and satisfaction (r=0.753), and social interaction and satisfaction (r=0.719), all at $p<0.001$. These findings support Self-Efficacy Theory and Sociocultural Theory, suggesting that educators should design structured pair-work activities and regularly iintegrate collaborative skills training in language education.

Keywords: Social interaction, pair work, satisfaction, confidence, Arabic language learners, Malaysia

INTRODUCTION

Background of Study

When two or more students work together to complete a task, it can be an effective learning strategy in today's educational context. This method, known as pair work or collaborative learning, has been shown to be beneficial for language learning through research conducted by Storch (2002). Social interaction occurs when students exchange ideas, tolerate one another, and provide mutual support (Vygotsky, 1978). Satisfaction reflects students' positive emotions during pair work, while confidence refers to their belief in their ability to perform a task (Bandura, 1977).

Many studies have examined interaction patterns (Storch, 2002; Burkert, 2015) and learning outcomes (Hsieh, 2017; Wong & Chapman, 2023). However, findings on how social interactions affect students' satisfaction and confidence remain limited, particularly in the Malaysian context. Recent studies have emphasized the

important of ffective dimensions as predictors of student engagement (Melguizo-Garín et al., 2022; Kaur Swaran Singh et al., 2020). This study investigates the importance of social interactions on students' satisfaction and confidence in pair work, providing evidence to inform pedagogical practices in language education.

Statement of Problem

Pair work is widely recognized as an effective collaborative learning approach that provides opportunities for communication, collaboration, and knowledge construction. Recent studies have shown that meaningful social interaction during pair work enhances student satisfaction and learning experiences (Wong & Chapman, 2023; Melguizo-Garín et al., 2022). Earlier studies by Storch (2002) and Baleghizadeh & Farhesh (2014) further highlighted that the effectiveness of pair work depends on the quality of interaction, including equal participation, mutual support, and collaborative engagement.

However, simply placing students in pairs does not always lead to successful pair work. Differences in learner's confidence, communication skills, and willingness to participate may influence the quality of social interaction, which subsequently affects their satisfaction, confidence, knowledge construction and social and cultural learning experiences. This view is supported by Sociocultural Theory (Vygotsky, 1978), which explains that learning occurs through social interaction and Self-Efficacy Theory (Bandura, 1977), which suggests that positive learning experiences strengthen learner's confidence and engagement.

Although previous studies have examined interaction, satisfaction, confidence and knowledge construction in collaborative learning, these aspects have generally been investigated separately. Therefore, there is a need to examine how social interactions influence student's satisfaction, confidence, knowledge construction, social and cultural context in pair work. Hence, this study aims to examine the influence of social interactions on student's satisfaction and confidence in pair work while also investigating their relationships with knowledge construction, social and cultural context.

Objective of the Study and Research Questions

This study is done to explore the influence of social interactions on students' satisfaction and confidence in pair work. Specifically, this study is done to answer the following questions;

- Is there a significant relationship between (a)satisfaction & confidence, (b) pair work across gender?

H_{o1}: There is no significant relationship between (a)satisfaction & confidence, (b) pair work across gender

- Is there a significant relationship between (a)satisfaction & confidence, (b) pair work across clusters?

H_{o2}: There is no significant relationship between (a)satisfaction & confidence, (b) pair work across gender

- How do learners perceive social interactions in pair work?
- How do learners perceive satisfaction in pair work?
- How do learners perceive confidence in pair work?
- How do learners perceive knowledge construction in pair work?
- How do learners perceive social & cultural context in pair work?
- Is there a relationship between social interaction and (a) satisfaction, (b) confidence, (c) knowledge construction, and (d) social and cultural context?

H_{o3}: There is no significant relationship between social interaction and (a) satisfaction, (b) confidence, (c) knowledge construction, and (d) social and cultural context.

LITERATURE REVIEW

Theoretical Framework of the Study

- Self-Efficacy

Bandura's (1977) theory of self-efficacy refers to an individual's belief in their capability to organize and execute the actions required to achieve specific goals or perform particular tasks successfully. According to Bandura, self-efficacy influences how people think, feel, motivate themselves, and behave. In educational settings, learners with high self-efficacy tend to approach challenging tasks with confidence, demonstrate greater persistence when facing difficulties, and maintain stronger motivation to learn. This belief in one's abilities is closely linked to learners' self-confidence during classroom interactions. Students who feel capable of contributing meaningfully are more likely to participate in discussions, ask questions, share ideas, and engage actively with peers and instructors. Such positive interactions can enhance their sense of competence and belonging within the classroom. Furthermore, successful participation and constructive feedback from teachers and classmates reinforce learners' self-efficacy, creating a positive cycle of engagement and achievement. As a result, higher self-efficacy is often associated with greater satisfaction in classroom interactions, as learners feel more confident, valued, and successful in their learning experiences, which ultimately contributes to improved academic outcomes and overall educational satisfaction.

- Sociocultural theory

Vygotsky's (1978) Sociocultural Theory emphasizes that learning is fundamentally a social process in which knowledge is constructed through interaction with others and mediated by cultural tools, particularly language. A central concept of the theory is the Zone of Proximal Development (ZPD), which refers to the gap between what learners can accomplish independently and what they can achieve with the guidance or support of more capable peers or teachers. In classroom settings, pair work interactions provide an effective context for learners to operate within their ZPD. Through collaborative dialogue, learners exchange ideas, negotiate meaning, solve problems, and provide mutual support, which facilitates cognitive development and language acquisition. Pair work enables students to scaffold each other's learning by offering explanations, feedback, and models of appropriate language use. These interactions encourage active participation and create opportunities for learners to co-construct knowledge rather than passively receive information. Furthermore, pair work promotes communicative competence, critical thinking, and learner autonomy by allowing students to engage in meaningful discussions and collaborative problem-solving. From a sociocultural perspective, pair work interactions are therefore essential learning activities that enhance both academic development and social engagement in the classroom.

Past Studies

- Past Studies on Pair Work

Many studies have been done to investigate how pair work, through the social interaction, satisfaction, confidence, and knowledge construction it generates, shapes learners' experiences in the classroom. Storch (2002) investigated the nature of dyadic interaction among 10 pairs of adult ESL learners in a university writing class over the course of a semester. Using audio-recorded pair-work sessions as the main instrument, the study identified four distinct patterns of interaction – collaborative, dominant/dominant, dominant/passive, and expert/novice – which were distinguished by the degree of equality and mutuality between partners. Findings revealed that the collaborative and expert/novice patterns, characterized by high mutual engagement, were more conducive to language learning than patterns marked by unequal participation, a result explained with reference to Vygotsky's (1978) sociocultural theory of learning. Next, Wong and Chapman (2023) surveyed 280 undergraduate students at a large higher education institution in Singapore to examine how different forms of interaction relate to student satisfaction. Using a quantitative questionnaire measuring student–student formal, student–student informal, and student–instructor interaction, the study found that informal peer interaction was a particularly strong predictor of students' overall satisfaction with their university experience.

The study by Kaur Swaran Singh et al. (2020) carried out an action research study involving 24 Form Four ESL learners in Malaysia to examine the effect of the Think-Pair-Share (TPS) cooperative learning strategy on weak students' speaking ability. Data were gathered through teachers' reflective journal entries and focus group interviews. The findings showed that TPS not only improved learners' speaking performance but also had a considerable impact on boosting their confidence to speak in English, since the pair-discussion stage allowed learners to rehearse and refine their ideas with a partner before sharing them with the larger class. Next, Melguizo-Garín et al. (2022) surveyed 359 university students from two Spanish universities using the Analysis of Cooperation in Higher Education Scale (ACOES) to explore the relationship between group-work competencies and satisfaction with project-based learning. The study found a significant and positive relationship between students' group-work competencies, such as their ability to establish group norms and their perceived usefulness of group work, and their overall satisfaction with the learning method.

Other researchers have looked at how pair work contributes to knowledge construction and to learners' sense of social connectedness within the classroom. Hsieh (2017) conducted a case study of four graduate-level ESL learners who worked in pairs, supported by online resources, to co-write an essay. Using discourse analysis of the learners' interactions as the main instrument, the study identified three scaffolding patterns – peer-to-peer, multi-directional, and individual – and found that peer scaffolding within pairs facilitated knowledge construction and encouraged learner autonomy, while also narrowing the proficiency gap between partners. Next, Burkert (2015) examined the peer talk of first- and second-year English students at the University of Graz, Austria, by audio-recording pairs and small groups as they worked collaboratively on classroom tasks. The findings showed that learners actively used language as a tool for joint thinking, negotiating meaning and building shared understanding together, supporting the view that knowledge in pair work is co-constructed rather than transmitted. These results are consistent with Baleghizadeh and Farhesh's (2014) finding that pair work motivates EFL learners by giving them a socially supportive space in which to exchange ideas, take responsibility for shared tasks, and feel accepted by their peers, thereby also strengthening the social and cultural dimension of classroom learning.

In summary, the past studies discussed above show a consistent pattern: pair work generates opportunities for social interaction, and this interaction is closely tied to learners' satisfaction, confidence, knowledge construction, and sense of social connectedness in the classroom. Storch (2002) and Wong and Chapman (2023) point to interaction quality as a key predictor of engagement and satisfaction, while Kaur Swaran Singh et al. (2020) and Melguizo-Garín et al. (2022) show more directly that structured pair and group activities raise learners' confidence and satisfaction. Hsieh (2017), Burkert (2015), and Baleghizadeh and Farhesh (2014) further demonstrate that pair work is a site where learners jointly construct knowledge and negotiate their social and cultural roles as members of a learning community. However, most of these studies were conducted in single-classroom or single-country contexts and relied largely on qualitative or small-scale samples, leaving a gap for larger-scale, quantitative investigations that examine how social interaction, satisfaction, confidence, knowledge construction, and social and cultural context relate to one another simultaneously. This is the gap that the present study, involving 201 respondents, seeks to address.

Conceptual Framework of the Study

Figure 1 below shows the conceptual framework of the study. This framework positions social interaction as a central mechanism that shapes both cognitive and affective learning outcomes. Interaction among learners fosters opportunities to negotiate meaning, resolve differences, and collaboratively address challenges, which in turn encourages the development of problem-solving skills and enhances learners' self-confidence (Rahmat, 2020). This relationship is theoretically grounded in Self-Efficacy Theory, which posits that confidence and satisfaction in learning are strengthened through successful social experiences, peer affirmation, and the belief in one's capability to contribute meaningfully to tasks (Bandura, 1977). Such confidence and satisfaction are further supported by findings that positive learning experiences increase students' assurance, engagement, and emotional fulfilment in educational settings (Studnicka, 2023). The framework also draws on Sociocultural Theory, which conceptualises learning as a socially mediated process where interaction and dialogue within pairs or small groups support development within the Zone of Proximal Development (Vygotsky, 1978). Within this perspective, pair work serves as a key site for knowledge construction, allowing learners to co-construct understanding while drawing on shared social and cultural resources. This aligns with Baleghizadeh

and Farhesh's (2014) assertion that pair work facilitates learning through meaningful social interaction, collaborative knowledge construction, and engagement with social and cultural contexts. Collectively, the framework explains how social interactions underpin satisfaction, self-confidence, and deeper learning by integrating affective growth with socially situated knowledge construction.

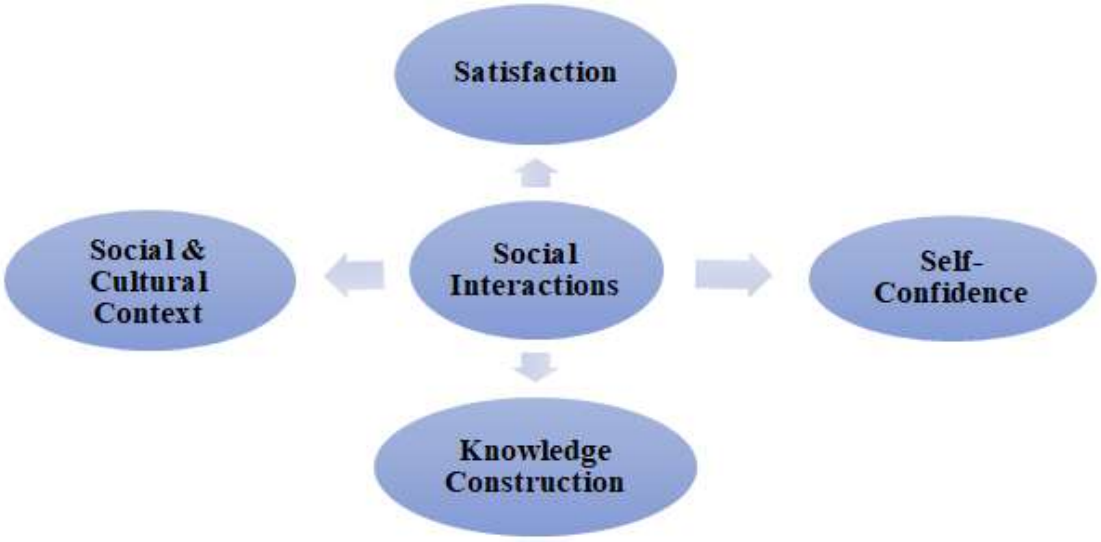

Figure 1- Conceptual Framework of the Study-

The influence of Social Interactions on Students' satisfaction and confidence in pair work

METHODOLOGY

This quantitative study is done to explore the influence of social interactions on student's satisfaction and confidence in pair work. A convenient sample of 201 participants responded to the survey. They were Arabic language learners. The instrument used is a 5 Likert-scale survey and is rooted from Rensis Likert (1932) to reveal the variables in table 3 below. Table 1 below shows the categories used for the Likert scale; 1 is for Strongly Disagree, 2 is for Disagree, 3 is for Undecided, 4 is for Agree and 5 is for Strongly Agree.

Table 1- Likert Scale Use

1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Table 2- Distribution of Items in the Survey

SECTION	VARIABLE	CONSTRUCT	ITEM	CRONBACH'S ALPHA
B	STUDENT SATISFACTION AND SELF-CONFIDENCE IN LEARNING Studnicka (2023)	Satisfaction with Current Learning	5	0.942
C		Self-Confidence in Learning	8	0.943

D	Social Interactions		4	0.919
E	PAIR WORK Baleghizadeh & Farhesh (2014)	Knowledge Construction	4	0.940
F		Social & Cultural Context	4	0.884
			25	

Table 2 shows the distribution of items in the survey. There are five sections in this questionnaire. Firstly, demographic section. The second section measures students' satisfaction with their current learning (5 questions), the third section contains eight questions that investigate components of self-confidence in learning, while the fourth section contains four questions to explore the social interactions among them. The last two sections each consist of four questions: examine knowledge construction and the social and cultural context respectively.

Table 3- Reliability Levels, Cronbach's Alpha Ranges, and Their Interpretations

Reliability Level	**Cronbach's Alpha range**	**Interpretation**
Excellent	0.9 and above	Indicates very high internal consistency
Good	0.80-0.89	Reflects strong internal consistency
Acceptable	0.70-0.79	Indicates acceptable internal consistency
Questionable	0.60-0.69	Reflects questionable internal consistency
Poor	Below 0.6	Indicates poor internal consistency

In order to determine the internal reliability of the instrument, reliability analysis is conducted. Table 3 above shows the distribution and interpretation of Cronbach Alpha range. According to Ahmad,et.al. (2024), Cronbach Alpha scores between 0.7 to 0.9 is considered acceptable to excellent.

Table 2 also shows the reliability of the survey. The analysis shows a Cronbach alpha of 0.942 for Satisfaction, 0.943 for Confidence, .919 for Social Interactions, 0.940 for Knowledge Construction, and 0.884 for Social & Cultural Contexts. The overall Cronbach alpha for all 25 items is 0.976; thus, revealing a good reliability of the instrument chosen. Further analysis using SPSS is done to present findings to answer the research questions for this study.

FINDINGS

Demographic Analysis

According to Zienefuss, et.al (2021), researchers report demographic data in percentages to establish sample representatives, and allow for generalizability to a larger population. The reporting also provides an overview of participants' characteristics. Percentages offer a clear and understandable picture of the sample makeup.

Table 4- Percentage for Demographic Profile

Question	Demographic Profile	Categories	Percentage (%)
1	Gender	Male	39%
		Female	61%

2	Education Level	Diploma	67%
		Bachelors	33%

Table 4 displays the demographic profile of the respondents in percentages. The majority of respondents are female (61%), compared to 39% who are male. With respect to education level, most respondents hold a diploma (67%), whereas 33% are pursuing a bachelor's degree.

Inferential Statistics

According to He (2024), there are three main functions of a T-test and ANOVA. Firstly, both are done to compare means. This test is also done to determine if the average scores (mean) or values of two groups, or one group against a known value, are different enough to be considered statistically meaningful and are not just due to random chance. Secondly, T-test and ANOVA are done to test hypotheses. Researchers use t-tests and ANOVA to test hypotheses about means, such as whether a new treatment significantly impacts a variable or if there's a difference in performance between two distinct groups. Lastly, T-test and ANOVA are done to identify significant differences. The output of a t-test provides a p-value (significance value). If this p-value is below a predetermined threshold (often 0.05), it indicates a statistically significant difference, allowing researchers to draw conclusions about the populations from which their samples were drawn. A one-way ANOVA (Analysis of Variance) is a statistical method used to compare the means of three or more independent (unrelated) groups to determine if there is a statistically significant difference between them. It is a parametric test that evaluates the effect of a single independent variable (the factor) on a dependent variable.

Findings for Significant Difference for all factors across Clusters

This section presents data to answer research question 1 : Is there a significant relationship between satisfaction & confidence across gender and education?

$H_{o1:}$ There is no significant relationship between satisfaction & confidence across gender and education

Table 5- T-Test for Satisfaction & Confidence across Gender and Education level

		MEAN	SD	T-Statistics *df*	p-value	OUTCOME
Gender	Male	3.99	0.69	t(199)=-1.848	0.066	H_o Accepted
	Female	4.16	0.59			
Education Level	Diploma	3.98	0.54	t(199)=-3.618	<0.001	H_o Rejected
	Bachelors	4.31	0.73			

With reference to table 5, a T-test was conducted to examine the effects of satisfaction & confidence across gender and education. The analysis in the table shows there is no significant difference between satisfaction & confidence across gender but there is a significant relationship for education level (t(199)=-3.618, p= <0.001). Null hypothesis (H_{o1}) is accepted for gender and rejected for education level.

Findings for Significant Difference for all factors across Clusters

This section presents data to answer research question 2: Is there a significant relationship between pair work interactions across gender and education?

$H_{o2:}$ There is no significant relationship between pair work interactions across gender and education

Table 6- T-Test Pair Work Interactions across Gender and Education level

		MEAN	SD	T-Statistics *df*	p-value	OUTCOME
Gender	Male	4.02	0.76	t(199)=-1.906	0.058	H_o Accepted
	Female	4.21	0.63			
Education Level	Diploma	4.02	0.60	t(199)=-3.475	<0.001	H_o Rejected
	Bachelors	4.37	0.79			

With reference to table 6, a T-test was conducted to examine the effects of pair work interactions across gender and education. The analysis in the table shows there is no significant difference between pair work interactions across gender but there is a significant relationship for education level (t(199)=-3.475, p= <0.001). Null hypothesis (H_{o2}) is accepted for gender and rejected for education level.

Descriptive Statistics

Why is there a need to report the mean and standard deviation? According to Vetter (2017), Mean (M) represents the average, or centre of a data set. Standard Deviation (SD) indicates the typical distance of individual observations from the mean which shows the data's variability or spread. A low SD means the data points are clustered close to the mean whole a high. SD indicates they are more spread out. It is good to have a high SD.

Findings for Social Interactions

(i) Table 7- Mean(M) and Standard Deviation (SD) for Social Interaction (SI)

ITEM	M	SD
SIQ1I like learning activities in which students work together in pairs	4.05	0.87
SIQ2 Pair work creates a relaxing learning environment.	4.04	0.90
SIQ3 Students give more help to each other during pair work	4.10	0.80
SIQ4 I prefer to work within a pair rather than work alone.	4.02	0.92

This section presents data to answer research question 3: How do learners perceive social interactions in pair work? Table 7 shows the mean and standard deviation for social interaction (SI) on students' satisfaction and confidence in pair work. Item 3 has the highest value, (mean=4.10, SD=0.80), indicating that students give more cooperation and tend to help each other during pair work. Item 1 indicates (mean=4.05, SD=0.87), and item 2 indicates, SD=0.90), showing that students like to work together in learning activities because the environment is more enjoyable and happier. In contrast, item 4 shows the lowest value, indicating that students prefer to work within a pair rather than work alone.

Findings for Satisfaction

(ii) Table 8- Mean(M) and Standard Deviation (SD) for Satisfaction with Current Learning (CL)

ITEM	M	SD
CLQ1 The methods used in this role play /activity were supportive and effective	4.21	0.74

CLQ2 The role play /activity provided me with a variety of educational materials and activities to promote my learning.	4.23	0.72
CLQ3 I liked the way my instructor taught me the role play /activity	4.30	0.76
CLQ4 The teaching materials used in this role play /activity were motivating and helped me learn.	4.25	0.73
CLQ5 The way my instructor taught the role play /activity was appropriate to my way of learning.	4.15	0.78

This section presents data to answer research question 4: How do learners perceive satisfaction in pair work? Table 8 shows the mean and standard deviation for satisfaction with Current Learning (CL). Item 3 has the highest value, (mean=4.30, SD=0.76), indicating that students liked the way the instructor taught them the role play / activity. Item 4 indicates (mean=4.25, SD=0.73), item 2 indicates SD=0.72), and item 1 indicates that students were motivated and felt the learning processes were effective when using educational materials in role play or activities. While item 5 shows the lowest value, it (mean=4.15, SD=0.78), indicates that students prefer having the freedom to learn creatively rather than strictly following the teacher's instructions.

Findings for Confidence

Table 9- Mean(M) and Standard Deviation (SD) for Self-Confidence in Learning (L)

ITEM	M	SD
LQ1 I am confident that I am mastering the class role-play/activity presented to me by my instructors.	3.73	0.79
LQ2 I am confident that this role play/activity covered the essential content necessary to master the material covered in the curriculum.	3.89	0.78
LQ3 I am confident that I am developing the skills and gaining the required knowledge from this role play/activity to perform the necessary tasks in my course	3.98	0.77
LQ4 My instructors used a variety of helpful resources to teach this role play/activity	3.94	0.81
LQ5 It is my responsibility as a student to learn what I need during role play /activity classes.	4.21	0.75
LQ6 I know how to get help when I do not understand the concepts in the role play/activity.	4.07	0.74
LQ7 I know how to use role play exercises to learn the critical/key aspects of this course.	4.08	0.79
LQ8 It is the instructor’s responsibility to show me what I need to learn during the role play /acidity class.	4.13	0.79

This section presents data to answer research question 5 : How do learners perceive confidence in pair work? Table 9 shows the mean and standard deviation for Self-Confidence in Learning (L). Item 5 has the highest value, (mean=4.21, SD=0.75), indicating that students must be aware of their responsibility as students to learn what they need during role play or activity classes. It is followed by item no 8 (mean=4.13, SD=0.79), which indicates the instructor’s responsibility to show students' needs during the role play/activity class. Then item no 7 (mean=4.08, SD=0.79), and item 6 (mean=4.07, SD=0.74), states that students must know how to handle and seek help from others if there are problems during the play/activity. Beside item no 4 (mean=3.94, SD=0.81), no 3 (mean=3.98, SD=0.77) and no 2 (mean=3.89, SD=0.78), showed that instructors must use a

variety of helpful resources to teach this role play/activity. Students also must cover the essential content necessary to master the material covered in the curriculum and develop the skills and gain the required knowledge from this role-play/activity. Lastly, the lowest item, 1, shows the lowest value (mean=3.73 SD=0.79), indicating that students must have confidence and master the class role-play or activity.

Findings for Knowledge Construction

This section presents data to answer research question 6: How do learners perceive knowledge construction in pair work?

Table 10- Mean(M) and Standard Deviation (SD) for Knowledge Construction (KC)

ITEM	M	SD
KCQ1 Pair work helps students solve tasks better and faster.	4.02	0.92
KCQ2 Pair work helps students have more chances to exchange ideas with each other.	4.18	0.81
KCQ3 Pair work helps students understand information better after explaining it to others.	4.25	0.79
KCQ4 When pairs are well organized, the work gets done fast.	4.22	0.74

Table 10 presents the mean and standard deviation for knowledge construction in pair work. The highest mean is KCQ3 (M=4.25, SD=0.79), indicating that learners better understand information after explaining it to others through pair work. This is followed by KCQ4 (M=4.22, SD=0.74), showing that learners agreed tasks could be accomplished more easily and quickly when working together in pairs. KCQ2 (M=4.18, SD=0.81) indicates that learners have more opportunities to exchange ideas with their teammates during pair work. Lastly, KCQ1 (M=4.02, SD=0.92) suggests that learners can solve tasks more efficiently by working together with their partner.

Findings for Social & Cultural Contexts

This section presents data to answer research question 7: How do learners perceive social & cultural context in pair work?

Table 11- Mean(M) and Standard Deviation (SD) for Social and cultural context (SCC)

ITEM	M	SD
SCCQ1 Students learn more about how to share the responsibilities when working in pairs	4.14	0.82
SCCQ2 I feel more accepted by others after working within a pair	4.06	0.80
SCCQ3 It is important that each person takes responsibility for the learning as well.	4.32	0.74
SCCQ4 I never felt let down when I worked in pairs.	3.97	0.86

Table 11 presents the mean and standard deviation for social and cultural context in pair work. The lowest mean is SCCQ4 (M=3.97, SD=0.86), indicating that learners generally did not feel let down when working in pairs. The highest mean is SCCQ3 (M=4.32, SD=0.74), showing that learners recognise the importance of each team member taking responsibility for their own learning. The two middle items are SCCQ1 (M=4.14, SD=0.82) and SCCQ2 (M=4.06, SD=0.80). SCCQ1 indicates that through pair work, learners learn how to share responsibilities when working together. SCCQ2 suggests that learners feel more accepted by others after working within a pair.

Exploratory Statistics

According to He (2024), correlation is a statistical technique that shows how strongly two variables are related to each other or the degree of association between the two. It's a common tool for describing simple relationships without making a statement about cause and effect. This section presents data to answer research questions on correlation.

To determine if there is a significant association in the mean scores between Social Interactions, Self-confidence, Satisfaction, knowledge construction and social & cultural context, data is analyzed using SPSS for correlations. Results are presented separately in table 3, 4, 5 and 6 below.

According to He (2024), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0.

Table 12- Correlation between Social Interactions, Self-confidence, Satisfaction, knowledge construction and social & cultural context.

		Self confidence	satisfaction	Knowledge construction	Social Cultural context
Social interactions	pearson correlation	.753**	.719**	.823**	.798**
	sig. (2-tailed)	<.001	<.001	<.001	<.001
	n	201	201	201	201
**. correlation is significant at the 0.01 level (2-tailed).					

Findings for the Relationship between

- Is there a relationship between social interaction and (a) satisfaction, (b) confidence, (c) knowledge construction, and (d) social and cultural context? (Research question number 8)

- $H_{o3:}$ There is no significant relationship between social interaction and (a) satisfaction, (b) confidence, (c) knowledge construction, and (d) social and cultural context.

Table 12 shows there is an association between social interaction and (a) satisfaction, (b) self-confidence, (c) knowledge construction, and (d) social and cultural context. Specifically, correlation analysis shows that there is a high significant association between;

(a) satisfaction (r=.719**) and (p=<.001),

(b) self-confidence (r=.753**) and (p=<.001),

(c) knowledge construction (r=.823**) and (p=<.001),, and

(d) social and cultural context(r=.798**) and (p=<.001).

Hence, null hypothesis is rejected for $H_{o3.}$

CONCLUSION

Summary of Findings and Discussions

This section summaries the key findings of the study by addressing each research question and relating them to past studies discussed in the literature review.

Research Question 1: Is there a significant relationship between satisfaction & confidence across gender and education?

The findings revealed no significant difference in satisfaction and confidence across gender, but a significant difference was found across education level, with bachelor's degree students showing higher satisfaction and confidence than diploma students. This finding is in accordance with the study by Melguizo-Garín et al. (2022), which found that students' competencies and educational background significantly influenced their satisfaction with collaborative learning. The lack of gender difference supports Baleghizadeh and Farhesh's (2014) assertion that pair work benefits learners regardless of demographic characteristics, suggesting that the advantages of social interaction in pair work may be universal across gender.

Research Question 2: Is there a significant relationship between pair work interactions across gender and education?

Similar to RQ1, the findings showed no significant difference in pair work interactions across gender, but significant differences were observed across education level, with bachelor's degree students reporting more positive pair work interactions than diploma students. This finding aligns with Wong and Chapman's (2023) study, which demonstrated that informal peer interaction was a strong predictor of student satisfaction, and that educational background influences how learners engage in collaborative activities. The gender finding further supports Storch's (2002) observation that interaction quality, rather than demographic factors, determines the effectiveness of pair work.

Research Question 3: How do learners perceive social interactions in pair work?

Learners perceived social interactions in pair work positively, with the highest perception being that students give more help to each other during pair work, and the lowest being preference for pair work over working alone. This finding is consistent with Kaur Swaran Singh et al.'s (2020) study, which showed that the pair-discussion stage in Think-Pair-Share allowed learners to rehearse and refine ideas with partners, fostering mutual support. The findings also support Vygotsky's (1978) Sociocultural Theory, which posits that learning is fundamentally a social process where learners scaffold each other's understanding through collaborative dialogue.

Research Question 4: How do learners perceive satisfaction in pair work?

Learners reported high satisfaction with pair work, with the highest perception being that they liked the way instructors taught through role play and activities, and the lowest being preference for flexible learning approaches over strict instructions. This finding is in accordance with Melguizo-Garín et al. (2022), who found a significant positive relationship between students' perceived usefulness of group work and their overall satisfaction with the learning method. The results also support Studnicka's (2023) findings that positive learning experiences increase students' emotional fulfilment and satisfaction in educational settings.

Research Question 5: How do learners perceive confidence in pair work?

Learners demonstrated moderate to high confidence in pair work, with the highest perception being awareness of their responsibility as students to learn, and the lowest being confidence in mastering class activities. This finding aligns with Kaur Swaran Singh et al.'s (2020) study, which showed that pair work strategies significantly boosted learners' confidence to speak in English, as the pair-discussion stage allowed rehearsal before sharing with the larger class. The findings support Bandura's (1977) Self-Efficacy Theory, which posits that confidence is developed through successful social experiences and peer affirmation, as learners in this study recognised both their own responsibility and instructors' support in building confidence.

Research Question 6: How do learners perceive knowledge construction in pair work?

Learners perceived knowledge construction in pair work very positively, with the highest perception being that they understand information better after explaining it to others, and the lowest being that pair work helps solve tasks faster. This finding is strongly consistent with Hsieh's (2017) case study, which found that peer

scaffolding within pairs facilitated knowledge construction and encouraged learner autonomy. The results also support Burkert's (2015) findings that learners actively use language as a tool for joint thinking and building shared understanding, confirming that knowledge in pair work is co-constructed rather than transmitted. This finding provides empirical evidence for Vygotsky's (1978) concept of the Zone of Proximal Development, where learners achieve more through collaborative dialogue than independently.

Research Question 7: How do learners perceive social & cultural context in pair work?

Learners perceived the social and cultural context of pair work positively, with the highest perception being the importance of each person taking responsibility for learning, and the lowest being that they never felt let down when working in pairs. This finding is in accordance with Baleghizadeh and Farhesh's (2014) study, which found that pair work motivates EFL learners by providing a socially supportive space where they feel accepted by peers and take responsibility for shared tasks. The results support the sociocultural perspective that pair work strengthens the social and cultural dimension of classroom learning, as learners negotiate their roles as members of a learning community.

Research Question 8: Is there a relationship between social interaction and (a) satisfaction, (b) confidence, (c) knowledge construction, and (d) social and cultural context?

The correlation analysis revealed strong positive relationships between social interaction and all four variables: satisfaction ($r=.719$), confidence ($r=.753$), knowledge construction ($r=.823$), and social & cultural context ($r=.798$), all significant at $p<.001$. This finding is strongly consistent with Wong and Chapman's (2023) study, which found that informal peer interaction was a particularly strong predictor of students' overall satisfaction. The results also support Storch's (2002) findings that collaborative interaction patterns characterized by high mutual engagement were more conducive to learning than patterns marked by unequal participation. Furthermore, these findings validate the conceptual framework of this study, which positions social interaction as a central mechanism shaping both cognitive and affective learning outcomes, as proposed by Rahmat (2020) and Studnicka (2023). The strong correlation between social interaction and knowledge construction ($r=.823$) provides empirical evidence for Vygotsky's (1978) claim that learning is fundamentally a social process mediated by interaction with others.

OVERALL DISCUSSION

Collectively, the findings of this study demonstrate that social interaction in pair work is significantly associated with learners' satisfaction, confidence, knowledge construction, and social-cultural context. The absence of gender differences but presence of education level differences suggests that the benefits of pair work are universal across gender but may be influenced by learners' prior educational experiences. These findings extend the literature by providing empirical evidence from a Malaysian context, addressing the gap identified in previous studies that were largely conducted in single-classroom or single-country contexts with small-scale samples. The strong correlations between social interaction and all dependent variables confirm that social interaction serves as a central mechanism linking affective and cognitive learning outcomes, validating the integration of Self-Efficacy Theory and Sociocultural Theory in understanding pair work effectiveness.

Implications and Suggestions for Future Research

Theoretical and Conceptual Implications

The findings of this study support and extend two key theories from the literature review: Bandura's (1977) Self-Efficacy Theory and Vygotsky's (1978) Sociocultural Theory.

First, the significant relationship between education level and learners' satisfaction and confidence supports Bandura's (1977) Self-Efficacy Theory. The finding that diploma and bachelor's degree students showed different levels of satisfaction and confidence suggests that educational background influences learners' belief in their ability to contribute to pair work tasks. This extends Self-Efficacy Theory by showing that prior

educational experiences shape learners' confidence and satisfaction in collaborative learning, which affects their willingness to engage in social interaction during pair work.

Second, the findings support Vygotsky's (1978) Sociocultural Theory, particularly the concept of the Zone of Proximal Development (ZPD). The significant relationship between social interaction and satisfaction, confidence, knowledge construction, and social-cultural context indicates that pair work provides an effective context for learners to operate within their ZPD. Through collaborative dialogue and peer support, learners are able to co-construct knowledge and develop competencies that they might not achieve independently. This study provides evidence supporting Vygotsky's claim that learning is fundamentally a social process mediated by interaction with others.

Third, the conceptual framework of this study is validated by the findings. The significant relationship between social interaction and the four variables studied (confidence, satisfaction, knowledge construction, and social-cultural context) proves that affective development (satisfaction and confidence) and cognitive development (knowledge construction) are interconnected, whereby both can be developed through social learning experiences. In line with the suggestions by Rahmat (2020) and Studnicka (2023), interaction among learners provides them with more opportunities to discuss, negotiate meaning, resolve differences, and address difficulties collaboratively.

Finally, the gender factor did not influence satisfaction and confidence in conducting social interaction and pair work. This indicates a positive scenario in developing collaborative learners across gender, which supports Baleghizadeh and Farhesh's (2014) argument that pair work facilitates meaningful learning regardless of demographic characteristics.

Pedagogical Implications

The findings of this study will benefit all educators, especially in Arabic language education.

Firstly, educators should model appropriate attitudes and demonstrate genuine responsibility when implementing collaborative work. Educators should be the effective instructors. To facilitate successful social interaction, pair work activities should be carefully structured. This begins with clear instructions from the educator.

Secondly, when designing social interaction strategies and pair work activities, educators should also differentiate according to students' educational levels. Diploma students require clearer and more structured guidance compared to bachelor's degree students, who are more autonomous and can engage in student-centred learning activities through collaboration. This differentiation based on educational level facilitates smoother interaction, as compatibility fosters harmony and reduces feelings of insecurity among learners.

Thirdly, a classroom environment that values social interaction and collaborative learning should be established. Students should be given opportunities to discuss, guided in resolving conflicts, and encouraged to be open-minded in accepting suggestions or criticism. Such a learning environment contributes to the development of students' character, improvement in academic performance, and unity in teamwork.

Fourth, educators should regularly assess the quality of social interaction using observation checklists, student reflection journals, or peer evaluation forms to monitor interaction patterns and identify pairs needing support.

Finally, teacher education programs should include training on facilitating effective pair work through professional development workshops and peer observation opportunities.

In conclusion, these implications call for a shift from teacher-centered to learner-centered collaborative approaches that priorities meaningful social interaction to improve academic outcomes and foster 21st-century interpersonal skills.

Suggestions for Future Research

As mentioned earlier, a qualitative method using a self-reported survey was employed to investigate students' perceptions of how pair work influences their confidence and satisfaction. However, students' actual reactions, experiences, and actions cannot be measured through this research. Therefore, future research is recommended to combine self-reported survey, observations, and research interviews when investigating on this same area. This mixed method will help researchers to get the result more accurately, as well as determine the extent to which pair work effectively develops students' cognitive and affective abilities in learning Arabic. A study examining lecturers' perceptions, roles, and strategies in facilitating effective social interaction during pair work is also recommended to provide more practical pedagogical guidance. Furthermore, learning is no longer solely teacher-centred. Self-directed learning, group work, and group discussions have long been established practices and learning environments in Malaysia. Therefore, every teacher should possess techniques and strategies to ensure that social interaction activities in the classroom are effective.

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APPENDIX

Role Play /Activity And Pair Work

SECTION	VARIABLE	CONSTRUCT	ITEM/ INDICATOR	
B	STUDENT SATISFACTION AND SELF-CONFIDENCE IN LEARNING Studnicka (2023)	Satisfaction with Current Learning	5	13
C		Self-Confidence in Learning	8	
D	Social Interactions		4	12
E	PAIR WORK Baleghizadeh & Farhesh (2014)	Knowledge Construction	4	
		Social & Cultural Context	4	
				25

Section B- Student Satisfaction And Self-Confidence In Learning (Sscl)

(i) Satisfaction with Current Learning (CL)

ITEM	1	2	3	4	5
CLQ1 The methods used in this role play /activity were supportive and effective					
CLQ2 The role play /activity provided me with a variety of educational materials and activities to promote my learning.					
CLQ3 I liked the way my instructor taught me the role play /activity					
CLQ4 The teaching materials used in this role play /activity were motivating and helped me learn.					
CLQ5 The way my instructor taught the role play /activity was appropriate to my way of learning.					

(ii) Self-Confidence in Learning (L)

ITEM	1	2	3	4	5
LQ1 I am confident that I am mastering the class role-play/activity presented to me by my instructors.					
LQ2 I am confident that this role play/activity covered the essential content necessary to master the material covered in the curriculum.					

LQ3 I am confident that I am developing the skills and gaining the required knowledge from this role play/activity to perform the necessary tasks in my course					
LQ4 My instructors used a variety of helpful resources to teach this role play/activity					
LQ5 It is my responsibility as a student to learn what I need during role play /activity classes.					
LQ6 I know how to get help when I do not understand the concepts in the role play/activity.					
LQ7 I know how to use role play exercises to learn the critical/key aspects of this course.					
LQ8 It is the instructor's responsibility to show me what I need to learn during the role play /acidity class.					

Section C- Pair Work

(ii) Social Interaction (SI)

ITEM	1	2	3	4	5
SIQ1I like learning activities in which students work together in pairs					
SIQ2 Pair work creates a relaxing learning environment.					
SIQ3 Students give more help to each other during pair work					
SIQ4 I prefer to work within a pair rather than work alone.					

(iii) Knowledge Construction (KC)

ITEM	1	2	3	4	5
KCQ1 Pair work helps students solve tasks better and faster.					
KCQ2 Pair work helps students have more chances to exchange ideas with each other.					
KCQ3 Pair work helps students understand information better after explaining it to others.					
KCQ4 When pairs are well organized, the work gets done fast.					

(iv) Social and cultural context (SCC)

ITEM	1	2	3	4	5
SCCQ1 Students learn more about how to share the responsibilities when					

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working in pairs					
SCCQ2 I feel more accepted by others after working within a pair					
SCCQ3 It is important that each person takes responsibility for the learning as well.					
SCCQ4 I never felt let down when I worked in pairs.					