RESEARCH ARTICLE

The Role of Classroom Interaction in Enhancing Learning Motivation among First-Year Middle School Learners

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Abstract

This study aims to explore the role of classroom interaction in enhancing the motivation to learn among first-year middle school students. To test the study's hypotheses, we relied on the comparative descriptive method by applying both the Classroom Interaction Scale by Wubbels (1991) and the Learning Motivation Scale by Douga, Loursi, and Gharbi (2007) to a sample of 150 first-year middle school students. The findings concluded the following:

The level of classroom interaction among first-year middle school students is average.

There are statistically significant differences in learning motivation scores attributable to levels of classroom interaction (low, medium, high) among first-year middle school students. These differences favored students with medium classroom interaction compared to those with low classroom interaction in terms of learning motivation, favored those with high classroom interaction compared to those with low classroom interaction in terms of learning motivation, and favored those with high classroom interaction over those with medium classroom interaction in terms of learning motivation. In other words, the higher the level of classroom interaction, the higher the student's motivation to learn.

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Introduction:

The world has recently witnessed several technological developments and an accumulation of knowledge, which necessitates that the educational system provides all possible material and human resources and exerts more effort in how to transfer this vast amount of knowledge to students. This is to enable them to keep pace with the times and its demands, and to make the most of their efforts. However, this alone is not enough to bring the learner to the desired level unless they have the motivation to learn.

The failure of a student may be attributed to deficiencies in the educational system or the teacher's shortcomings in the educational process. However, this failure may also be due to psychological factors related to the student, who has become the key element and driving force in the educational process. This situation necessitates that the student possesses a high level of motivation.

There is almost a consensus among psychologists on the importance and role of motivation in driving and directing human behavior in general, and in learning and academic achievement in particular. The concept of motivation is used

to explain the extent to which students invest their attention and efforts in various directions, which may be desirable or undesirable from the teachers' perspective. (Nabil Muhammad Zayed, 2003)

Therefore, motivation is considered one of the most important topics related to learning, which requires us to study it and investigate the key factors that influence it. This understanding helps in comprehending, interpreting, predicting, and controlling student behavior, especially when the student has transitioned from one educational stage to another, such as the transition to middle school. Middle school is known as a transitional stage between primary and secondary school, serving as a link between two educational phases. It is the final stage of compulsory education, aimed at enabling each student to master a set of basic educational, cultural, and vocational competencies that allow them to continue their studies and training after compulsory education or to integrate into the workforce. (Ministry of National Education, 2016, p.13)

The middle school stage lasts for four years and is considered a sensitive educational stage due to its overlap with a critical age stage in the student's life—early adolescence. This is especially true for first-year middle school students, some of whom may face difficulties in adapting and adjusting to the new environment.

To help the adolescent student achieve a greater sense of self-satisfaction, develop effective social interaction, and encourage self-actualization, teachers must understand the underlying causes of the student's behavior. Teachers need to recognize methods for enhancing adolescents' self-confidence and providing opportunities for their balanced and integrated growth. (Abu Riyyash and Abdel-Haq, 2007, pp. 108-111)

Motivation to learn is influenced by many factors that can lead to its decline. This may manifest in students as feelings of boredom, withdrawal, inadequacy, daydreaming, lack of participation in classroom and school activities, misbehavior, and disruption. For this reason, educators have placed great emphasis on the topic of motivation due to its significant impact on learning. This has led educational systems to call for stimulating students' motivation and directing it to engage them in cognitive, motor, and emotional activities, as motivation to learn is a key factor in achieving educational goals and fulfilling the broader societal objectives.

Motivation to learn is influenced by many internal factors (such as ability, inclination, and attitude) and external factors (such as family, school, and peers). Therefore, in this study, we chose to focus on one of the external factors—the classroom environment—which may be considered one of the important factors affecting students' learning. Simply put, students learn better when they perceive the learning environment as positive and supportive. A positive environment is one where students feel a sense of belonging, trust in others, and are encouraged to face challenges, take risks, and ask questions. (Bucholz, 2009, p. 203). Such an environment provides important content to cover learning objectives, clear feedback, opportunities to build social skills, and strategies to help learners succeed.

Among the factors related to the classroom environment that may also influence the motivation to learn is classroom interaction. Rohr defines classroom interaction in his book Educational Psychology as "the process through which the teacher masters the skill of teaching and guides students to a level of learning and understanding through processes of selection, dialogue, and deduction, leading to classroom discipline, mutual respect between the two parties, and focused attention." (Abdul Hadi, 2000, p. 173)

One of the studies that addressed the topic of classroom interaction and its relationship with learning motivation is by Bilal Khaled Khudair and Imad Ismail Hilal (2020). Their study focused on the patterns of classroom interaction practiced by teachers and their relationship with students' motivation to learn at the elementary level. The study sample consisted of 90 teachers and 180 students, and the results revealed that elementary school teachers practice classroom interaction patterns to a great extent, with differences in classroom interaction favoring females, and a relationship between teachers' practice of classroom interaction patterns and students' motivation to learn. (Khadeir, and Hilal, 2020, p. 168)

In contrast, a study by Harrouz Harrouz and Omar Hajjaj (2018), which aimed to explore the relationship between classroom communication and motivation to learn, was conducted on a sample of 128 second-year high school

students from Sidi Abaz Neighborhood High School in Ghardaïa. The results showed that there is no relationship between classroom communication and motivation to learn among second-year high school students in Ghardaïa. (Harrouz and Hajjaj, 2018, p. 953)

In light of the aforementioned points, this study aims to explore the role of classroom interaction in enhancing the level of motivation to learn among first-year middle school students. The study's problem is represented by the following questions:

- What is the level of classroom interaction among first-year middle school students?
- Are there statistically significant differences in learning motivation scores attributable to levels of classroom interaction (low, medium, high) among first-year middle school students?

1. Study Hypotheses:

- The level of classroom interaction is high among first-year middle school students.
- There are statistically significant differences in learning motivation scores attributable to levels of classroom interaction (low, medium, high) among first-year middle school students.

2. Aims of the Study:

This study aims to clarify the role and importance of classroom interaction in enhancing the level of motivation to learn among first-year middle school students by:

- Identifying that the level of classroom interaction among first-year middle school students is high.
- Demonstrating that there are statistically significant differences in learning motivation scores attributable to levels of classroom interaction (low, medium, high) among first-year middle school students.

3. Identifying the Concepts:

3.1.Classroom interaction: According to Al-Zaghoul and Al-Mahamid, it refers to all verbal and non-verbal actions occurring within the classroom aimed at preparing the learner mentally and psychologically for better learning. It is a collection of opinions, activities, and dialogues that take place in the classroom in an organized and purposeful manner to increase students' motivation and enhance their desire to learn. It also involves the process of conveying ideas, feelings, and emotions to these learners. (Al-Zaghoul and Al-Mahamid, 2007, p. 32)

Procedurally, it is defined as the total score a first-year middle school student receives when responding to the Classroom Interaction Scale by **Wubbels (1991)**.

3.2. Learning Motivation:

Conceptually, it is defined as an internal energy within a living being that stimulates it to behave in a specific way in the external world. This is achieved by selecting the response that is functionally beneficial for adapting to the external environment and prioritizing this response over other potential responses, resulting in the satisfaction of a particular need or the achievement of a specific goal. (Bahi and Shalabi, 1999, p. 7)

Procedurally, it is defined as the total score a first-year middle school student receives when responding to the Learning Motivation Scale by **Douga, Loursi, and Gharbi (2007)**.

4. Field Procedures of the Study:

4.1. Study Methodology: Due to the specific nature of our study, which involves comparing results between groups, we relied on the comparative descriptive method, which is a type of descriptive research. This method is commonly used in comparative psychology and comparative education and is known as causal-comparative studies. Such studies are based on a research approach that includes a set of procedures aimed at understanding characteristics and explaining differences between two or more groups on a specific variable, relying on differences in the independent variable while maintaining similarity in other variables affecting the dependent variable. (Bashir Saleh Al-Rachidi, 2000, pp. 79-88)

4.2. Study Sample: The process of selecting the sample is a key step in data collection. Our sample was chosen using a convenience sampling method due to the facilitation provided by "**Wrida Meddad**" Middle School and "**Mohamed Bouras**" Middle School in Algiers.

Convenience sampling is a type of non-random sampling that does not allow for the estimation of sampling errors and may be subject to sampling bias. Therefore, the information obtained from this sample cannot be generalized to the target population. This technique involves selecting the sample from the portion of the target population that is readily accessible or available. (Pacherjee, 2015, p. 197)

Our research sample consisted of **150** students (**75** female, **75** male) from first-year middle school, selected conveniently from Worida Medad Middle School and Mohamed Bouras Middle School in Algiers, for the 2022-2023 academic year, with ages ranging between 11 and 12 years.

The following table illustrates the study sample:

Table 01. *Distribution of the Sample based on their Gender.*

Middle School	Male	Percentage	Female	Percentage	Total	Percentage
Wrida Meddad	37	24.66	40	26.66	77	51.33
Mohamed Bouras	38	25.34	35	23.34	73	48.67
Total	75	50%	75	50%	150	100%

It can be noted from Table 1 that the percentage of males is estimated at 50%, which is equal to the percentage of females, also estimated at 50%. This indicates the homogeneity of our sample.

4.3. The Study Tools:

The researcher relied on two scales which are:

4.3.1. Classroom Interaction Scale: The scale was designed by Wubbels (1991) and later translated by researcher Madahi Al-Arabi with the assistance and review of a group of professors in the academic year 2018/2019. It consists of a questionnaire comprising 48 items, divided into eight dimensions as follows:

Leadership: Includes items numbered: 1, 5, 9, 13, 17, 21.

Understanding: Comprises items numbered: 2, 6, 10, 14, 18, 22.

Certainty: Consists of items numbered: 3, 7, 11, 15, 19, 23.

Blame and Reprimand: Includes items numbered: 4, 8, 12, 16, 20, 24.

Help and Friendship: Comprises items numbered: 25, 29, 33, 37, 41, 45.

Responsibility and Freedom: Consists of items numbered: 26, 30, 34, 38, 42, 46.

Dissatisfaction: Includes items numbered: 27, 31, 35, 39, 43, 47.

Firmness and Strictness: Consists of items numbered: 28, 32, 36, 40, 44, 48.

These items are formulated in a positive direction and include 27 items, which are numbered as follows: 1, 2, 5, 6, 9, 10, 13, 14, 15, 18, 21, 22, 25, 26, 28, 29, 32, 33, 34, 36, 37, 38, 41, 42, 45, 46.

The remaining items are formulated in a negative direction and are numbered as follows: 3, 4, 7, 8, 11, 12, 16, 19, 20, 23, 24, 27, 30, 31, 35, 39, 40, 43, 44, 47, 48.

-Scale Correction: Weights are assigned to the positive items for the response options A, B, C, D, and E, with scores of 1, 2, 3, 4, and 5, respectively. For negative items, the scores are reversed as follows: 5, 4, 3, 2, and 1. Thus, the minimum possible score on the scale is 48, and the maximum possible score is 240.

- **The Scale Validity and Reliability:**

✓ **The Scale Validity:**

The validity of the scale was verified using criterion validity by calculating the correlation coefficient between the scores of 36 individuals from the pilot sample on the Classroom Interaction Scale and their academic achievement scores. The correlation coefficient was found to be 0.37, which is a positive and statistically significant correlation at the 0.05 significance level. This indicates that the Classroom Interaction Scale is valid and indeed measures what it is intended to measure. (Madahi, 2018-2019, pp. 124-133)

In our study, we ensured the validity of the scale in the Algerian context by employing internal consistency validity. The scale was administered to a pilot sample of 30 male and female students, who were not part of the main study sample. The correlation coefficients between the items of the Leadership dimension and the total score of this dimension ranged from (0.41 to 0.76) all of which were statistically significant at the 0.01 level. The correlation coefficients between the items of the Understanding dimension and the total score of this dimension ranged from(0.57 to 0.77) all significant at the 0.01 level. The correlation coefficients between the items of the Blame dimension and the total score of this dimension ranged from (0.46 to 0.77) all of which were also significant at the 0.01 level.

The correlation coefficients between the items of the Certainty dimension and the total score of this dimension ranged from (0.38 to 0.70) all of which were significant at the 0.01 and 0.05 levels, except for items 3 and 15, which had low correlation coefficients (0.25 and 0.23, respectively) and were not significant at the 0.05 level; thus, these items will be excluded.

The correlation coefficients between the items of the Help and Friendship dimension and the total score of this dimension ranged from(0.58 to 0.81) which are significant at the 0.01 level. The correlation coefficients between the items of the Responsibility and Freedom dimension and the total score of this dimension ranged from (0.45 to 0.55) all significant at the 0.01 level, except for item 30, which had a low correlation coefficient (0.25) and was not significant at the 0.05 level; therefore, it will be excluded.

The correlation coefficients between the items of the Dissatisfaction dimension and the total score of this dimension ranged from (0.58 to 0.82) all significant at the 0.01 level. The correlation coefficients between the items of the Firmness and Strictness dimension and the total score of this dimension ranged from (0.31 to 0.64) all significant at the 0.01 and 0.05 levels, except for item 44, which had a low correlation coefficient (0.26) and was not significant at the 0.05 level; thus, it will be excluded.

The correlation coefficients between the total score of each dimension and the total score of the scale were (0.76, 0.81, 0.46, 0.66, 0.74, 0.60, 0.71, 0.32), respectively, all significant at the 0.01 and 0.05 levels.

✓ **Reliability:** The reliability of the scale was verified using two methods:

-Test-Retest Method: The time interval between the first and second tests was two weeks. Through statistical analysis, the researcher found that the reliability coefficients for the following dimensions—Certainty, Blame and Reprimand, Responsibility and Freedom, Firmness and Strictness—did not reach sufficient reliability levels, with values ranging between (0.10 and 0.26). This led the researcher to exclude these dimensions from the study. In contrast, the reliability coefficients for the dimensions of Leadership, Understanding, Help and Friendship, and Dissatisfaction ranged between (0.50 and 0.59), which were sufficient for the intended purpose.

-Internal Consistency Method: The researcher calculated Cronbach's alpha coefficient for each dimension of the scale in relation to the overall scale. The results indicated that the reliability coefficients for the dimensions of Certainty, Blame and Reprimand, Responsibility and Freedom, Firmness and Strictness were low, ranging between (0.15 and 0.31), which led the researcher to exclude them. Meanwhile, the reliability coefficients for the dimensions of Leadership, Understanding, Help and Friendship, and Dissatisfaction were satisfactory, ranging between (0.57 and 0.63), which were sufficient for the intended purpose. (Madahi, 2018-2019, pp. 132-133)

As for our study, we ensured the reliability of the scale in the Algerian context using the test-retest method, where the Pearson correlation coefficient between the two applications was 0.74, indicating good reliability and showing that the scale is consistent. Based on the validity results, the scale in our study consists of 44 items after excluding items 3, 15, 30, and 44. Therefore, the minimum score is 44, and the maximum score is 220.

4.3.2. Motivation for Learning Scale: This scale was designed by Professor Douga Ahmed, Loursi Abdelkader, and Gharbi Mounia in 2007. The purpose of this scale is to determine the level of motivation and identify the various reasons that could explain the decline in learning motivation among middle school students in the Algerian society. It addresses the different dimensions and components of motivation and includes four (04) axes presented in Viau's model.

First Dimension: Value of Learning: Includes items 4, 9, 12, 15, 18, 21, 23, 25, 27, 32.

Second Dimension: Competence: Includes items 1, 3, 5, 7, 10, 13, 16, 19, 20, 22, 24, 26, 28, 31, 34, 36, 37, 38.

Third Dimension: Achievement of Study Goals: Includes items 8, 14, 17, 30, 35, 39, 42.

Fourth Dimension: Learning Environment: Includes items 11, 29, 33, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50.

Correction of the Motivation for Learning Scale: The scale's scores range from a minimum of 50 to a maximum of 200. Respondents answer each item using a self-assessment method by marking (X) next to one of the four proposed alternatives, which are rated on a 4-point scale as follows:

Completely True (4), Somewhat True (3), Not True (2), Don't Know (1).

✓ **The Scale Validity and Reliability:**

- **The Scale Validity:**

The Motivation for Learning Scale demonstrates construct validity and predictive validity, meaning its results are genuinely related to academic performance outcomes. It addresses the various dimensions and components mentioned in Viau's model. To verify this, a factor analysis using the principal components method was conducted on all items of the scale. It was found that the scale comprises six (6) principal components related to different perceptions of students, forming the concept of motivation. Additionally, predictive validity of the scale was confirmed, as there were statistically significant, albeit weak, correlations between the scale results and academic performance results (Douqa, Loursi, and Gharbi, 2007, p. 62).

In our study, we calculated internal consistency validity, applying the scale to the same pilot sample. The correlation coefficients between the items of the Learning Value dimension and the total score of this dimension ranged from(0.38 to 0.68), all significant at the 0.05 and 0.01 levels, indicating the dimension's validity. The correlation coefficients between the items of the Competence dimension and the total score ranged from (0.37 to 0.80), all significant at the 0.05 and 0.01 levels, except for items 19, 37, and 38, which will be deleted. The correlation coefficients between the items of the Goal Achievement dimension and the total score ranged from (0.46 to 0.65), all significant at the 0.05 and 0.01 levels, indicating the validity of this dimension. The correlation coefficients between the items of the Learning Environment dimension and the total score ranged from (0.40 to 0.76), all significant at the 0.05 and 0.01 levels, except for items 11, 40, and 46, which will be deleted.

We also calculated the correlation coefficients between the total score of each dimension and the total score of the scale, which were 0.91, 0.93, 0.92, and 0.86, respectively, all significant at the 0.01 level, indicating that the scale is valid.

- **Reliability:** The results of the reliability measurement of the Motivation for Learning Scale, using the split-half method, showed that the Pearson correlation coefficient was estimated at 0.87, indicating that the scale has a high degree of reliability (Douga, Loursi, and Gharbi, 2007, p. 68).

To calculate the reliability of the scale in our current study, we relied on the test-retest method, where the Pearson correlation coefficient between the two applications was 0.81, which is a good correlation, indicating that the scale is reliable. Based on the validity results, the final version of the scale for this study consists of 44 items after deleting items 19, 37, 38, 11, 40, and 46. Therefore, the minimum score is 44, and the maximum score is 176.

5. Discussion and Interpretation of the Hypotheses Results:

5.1. Discussion and Interpretation of the First Hypothesis Results:

The first hypothesis of the study indicates that the level of classroom interaction is high among first-year middle school students. To test this hypothesis, we proceeded as follows:

First/Defining the categories of classroom interaction using quartiles, the first quartile was estimated at (99), while the third quartile was estimated at (165). Based on this, we obtained the following categories:

- The low classroom interaction category ranges between (44-99).
- The medium classroom interaction category ranges between (100-165).
- The high classroom interaction category ranges between (166-220).

Second/To determine the level of classroom interaction in our study sample, we applied the K2 goodness-of-fit test. The results are shown in the following table:

Table 02. *The Significance of Differences between Levels of Classroom Interaction.*

Classroom Interaction	Sample	Percentage	Khi-deux Value	Significance Level
Low Classroom Interaction	3	2%	116.68	Significant at 0.01
Medium Classroom Interaction	109	72.67%		
High Classroom Interaction	38	25.33%		

From Table 2, we observe that the value of the Chi-square (Khi-deux) test is 116.68, which is significant at the 0.01 level. This indicates that there are differences between the levels of classroom interaction (low, medium, and high). The difference favors the group of students with a medium level of classroom interaction, which is estimated at 72.67%, compared to those with a low level of classroom interaction, estimated at 2%, and the group of students with a high level of classroom interaction, estimated at 25.33%. Therefore, our first hypothesis was not confirmed, as the level of classroom interaction among first-year middle school students is moderate.

It is worth noting that a moderate level of classroom interaction is also important, as it can stimulate and activate the learning process, providing students with new skills and competencies in the classroom. We also expect that this will play a significant role in enhancing students' motivation to learn, which we may discover later when testing the second hypothesis.

In this context, Nashwan (1993) pointed out that the interaction between teachers and students is the cornerstone of the educational situation, as it not only leads to achieving the specific educational objectives of the lesson but also enables students to acquire different cultural and social patterns from both the teacher and their peers, given that education is a social process (Maddahi, 2029, p. 38). Classroom interaction helps facilitate communication and the exchange of ideas, increasing the activity and vitality of learners in the educational setting. It also enables them to develop their attitudes positively (Al-Jaghoub, 2002, p. 65).

Positive classroom interaction helps develop students' listening, expression, dialogue, and discussion skills. It also assists them in acquiring positive attitudes toward the teacher, peers, and the subject matter. Therefore, the learning process requires classroom interaction, even at a moderate level, to achieve its objectives.

5.2. Discussion and Interpretation of the Second Hypothesis Results:

The second hypothesis indicates that there are statistically significant differences in learning motivation scores attributable to the levels of classroom interaction (low, medium, high) among first-year middle school students. To verify the validity of this hypothesis, we proceeded as follows:

First/ To ensure the normality distribution of learning motivation scores, the results were as follows:

Table 03. *The Normality Distribution of Learning Motivation*

	Kolmogorov-Smirnov	Significance Level
Learning Motivation	0.07	Not significant at 0.05 level

It is evident from Table 3 that the Kolmogorov-Smirnov value was 0.07, which is not significant at the 0.05 level, indicating that the distribution is normal.

Second/ After confirming the normality of the distribution of learning motivation scores (the dependent variable), we proceeded to test the homogeneity of the three groups of classroom interaction levels concerning learning motivation, which we obtained previously to test the first hypothesis. We applied Levene's test, and the results are shown in the following table:

Table 04.*A Table Showing the Homogeneity among the Classroom Interaction Groups (low, medium, high) Concerning Learning Motivation.*

Classroom Interaction Groups	N	$\bar{X}$	F	Significance
Low classroom interaction	03	124.33	**0.51**	Not significant at 0.05 level
Medium classroom interaction	109	148.77		
High classroom interaction	38	157.92		

Table 4 shows that the F value was 0.51, which is not significant at the 0.05 level. This indicates that there is no difference in variance among the three groups, meaning that there is homogeneity among the low, medium, and high classroom interaction groups concerning learning motivation.

Third/ After confirming the normality of the distribution of learning motivation scores and the homogeneity of the three classroom interaction groups, we applied the F-test for analysis of variance to compare the means of the three classroom interaction groups (low, medium, high) concerning learning motivation. The results are as shown in the following table:

Table 05. It Shows the Significance of the Differences between the Levels of Classroom Interaction Concerning Learning Motivation.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Value	Statistical Significance Level
Between groups	4471.30	2	2235.65	8.72	Significant at 0.01
Among groups	37658,69	147	256,18		
Total	42130,00	149			

From Table 5, we observe that the F value was 8.72, which is significant at the 0.01 level. This indicates that there is a difference between the mean learning motivation of students with low interaction, medium interaction, and high interaction. This supports our second hypothesis, meaning that learning motivation varies with different levels of classroom interaction. To determine which specific groups the differences favor, we applied Scheffe's test for comparing the groups, and the results are as follows:

Table 06. *The Results of the Comparison between the Groups Using the Scheffe Test.*

Groups	Difference Between Means	Degrees of Freedom	Mean Square
-Low classroom interaction -Medium classroom interaction	-24.43	9.36	Significant at 0.05
-low classroom interaction -high classroom interaction	-33.58	9.58	Significant at 0.01
-medium classroom interaction -high classroom interaction	-9.15	3.01	Significant at 0.05

Table 6 shows that the difference between the mean learning motivation of students with low classroom interaction and the mean learning motivation of students with medium classroom interaction is significant at the 0.05 level. This difference favors the mean learning motivation of students with medium classroom interaction, which is estimated at (148.77), compared to the mean learning motivation of students with low classroom interaction, which is estimated at (124.33).

Additionally, the difference between the mean learning motivation of students with low classroom interaction and the mean learning motivation of students with high classroom interaction is significant at the 0.01 level. This difference favors the mean learning motivation of students with high classroom interaction, which is estimated at (157.92), compared to the mean learning motivation of students with low classroom interaction, which is estimated at (124.33).

Moreover, the difference between the mean learning motivation of students with medium classroom interaction and the mean learning motivation of students with high classroom interaction is significant at the 0.05 level. This difference favors the mean learning motivation of students with high classroom interaction, which is estimated at (157.92), compared to the mean learning motivation of students with medium classroom interaction, which is estimated at (148.77).

The results indicate that as the level of classroom interaction increases, so does the level of student motivation to learn. This means that classroom interaction indeed plays a crucial role in enhancing the motivation of first-year middle school students. In other words, classroom interaction is an important variable that can stimulate and energize students' motivation towards learning.

Classroom interaction helps students develop a positive self-concept, accepting their own physical, social, emotional, and intellectual attributes. It increases their engagement in educational settings by moving them from silence, passivity, and withdrawal to active participation, discussion, and exchange of views. It also fosters positive attitudes towards others, encourages listening to and respecting their opinions, and benefits from their ideas, which in turn positively impacts their learning motivation.

Several studies have reached similar conclusions to ours. For instance, the study by Khdeir and Hilal explored the patterns of classroom interaction practiced by teachers and their relationship with student motivation in primary education. Their results revealed a statistically significant relationship between teachers' use of interactive teaching techniques, which heavily rely on oral communication, and students' motivation to learn (Khdeir & Hilal, 2020, p. 168).

Similarly, the study by Medahi aimed to examine the relationship between psychological stress, classroom interaction, and learning motivation in secondary school students. It found a statistically significant correlation between classroom interaction and learning motivation (Medahi, 2018-2019, p. 196).

It is noteworthy that the prevailing social and psychological climate in the classroom influences the interaction patterns between teachers and students, which in turn affects students' motivation, academic performance, and their ability to achieve educational goals (Nashwan, 1989, p. 162). This is supported by the study conducted by Wan-Yu Chang and Ying Chang, which found a positive correlation between learning motivation and the learning environment, as well as between learning motivation and the content of the subject and classroom tools (Chang, 2012, p. 289).

Thus, students who learn in a positive social and psychological environment with suitable classroom interaction are more capable of learning (Nashwan, 1989, p. 162).

Conclusion:

Classroom interaction plays a crucial role in the educational process, calling for an enhancement of the student's role to keep pace with the technological, economic, and social developments occurring worldwide. It aims to increase students' experiences and capabilities to become active members of their communities. Classroom interaction encompasses a range of opinions, activities, and discussions organized and directed towards developing the student's genuine desire to learn.

In this study, we aimed to uncover the role of classroom interaction in enhancing students' motivation to learn among first-year middle school students. The results of our study revealed that:

- ✓ The level of classroom interaction among first-year middle school students is average.
- ✓ There are differences in learning motivation scores based on levels of classroom interaction (low, medium, high) among first-year middle school students. These differences were found to be in favor of students with medium classroom interaction compared to those with low classroom interaction regarding learning motivation. Similarly, students with high classroom interaction showed higher motivation compared to those with low classroom interaction, and students with high classroom interaction also had higher motivation compared to those with medium classroom interaction. This indicates that as the level of classroom interaction increases, so does the level of students' motivation to learn.

These results demonstrate that classroom interaction is a significant and effective variable in the educational process that can enhance students' motivation to learn. It stimulates and energizes students, encouraging them to engage in classroom activities and compete to adapt to the school environment and achieve a social standing among their peers in the classroom.

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