

The effect of the teaching method based on community  
interaction on the academic achievement of school students of  
Kirkuk school students  
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تأثير أسلوب التدريس القائم على التفاعل المجتمعي على التحصيل الدراسي لطلاب مدارس  
كركوك

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المستخلص

يهدف هذا البحث إلى دراسة تأثير أسلوب التدريس القائم على التفاعل المجتمعي على التحصيل الدراسي لدى طلاب مدارس كركوك. يستعرض البحث الإطار النظري الخاص بطرائق التدريس الحديثة والتفاعل المجتمعي في البيئة التعليمية، كما يتضمن دراسة تطبيقية شملت عينة من المدارس في كركوك. تم تصميم استبانة مكونة من عشرة أسئلة لقياس مدى تطبيق هذا الأسلوب وتأثيره على النتائج التعليمية. تبرز النتائج من خلال تحليل إحصائي باستخدام برنامج R مع حساب المتوسط الحسابي والانحراف المعياري واختبار العلاقة بين المتغير التابع (التحصيل الدراسي) والمتغير المستقل (أسلوب التدريس المجتمعي). وتشير النتائج إلى وجود علاقة إيجابية معنوية بين التطبيق العملي لهذا الأسلوب وتحسين نتائج الطلاب، مما يدعو إلى تبني نماذج تعليمية مجتمعية لتعزيز العملية التعليمية.

Abstract

This research aims to study the effect of the teaching method based on community interaction on the academic achievement of Kirkuk school students. The research reviews the theoretical framework of modern teaching methods and community interaction in the educational environment, and includes an applied study that included a sample of schools in Kirkuk. A questionnaire consisting of ten questions was designed to measure the extent of the application of this method and its impact on educational outcomes. The results emerge through statistical analysis using the R program with the calculation of the arithmetic mean and standard deviation and testing the relationship between the dependent variable (academic achievement) and the independent variable (community teaching method). The results indicate a significant positive relationship between the practical application of this method and improving student outcomes, which calls for adopting community educational models to enhance the educational process. **Keywords:** Teaching methods / community education / social interaction / academic achievement / Kirkuk schools

Introduction

Schools are the essential element in building a healthy society as they play a major role in every society. Based on human nature, children grow up and, in the future, will be essential members of the same societies **Benson, P. L (1998: 140)**. For this reason, societies must have an effective role in providing schools in ideal and healthy educational environments to achieve the ultimate goal of ensuring that students enjoy great happiness and health as well as achieving the desired success in the educational process **Eccles, J. S (2015: 646) and Gleddie, D. L (2017: 23)**.

Successful schools realize that the most prominent and important goal is to establish strong, good relationships with a high sense of harmony with the surrounding community, as community participation with schools can contribute to increasing access to the learning opportunities provided, retaining students and establishing a solid

educational environment. Initiatives that are built and built on community support and assistance to help students achieve the ultimate goal of benefiting from learning opportunities *Sarbaitinil (2023: 155) and Fadila (2024: 24)*. A sense of belonging is a fundamental precursor to building a community. A sense of belonging makes students feel accepted, valued and highly evaluated by their teachers, so they see themselves as an integral part of the academic community in which they are. They are motivated to learn and participate in their courses, which leads to greater achievement, progress and improved academic performance. Research shows that fostering a sense of belonging among students is at the heart of any successful student retention strategy. When students feel as they do not belong to a good and strong community, it may negatively affect their learning experience and their attendance rates as well *Jafar (2022: 58) and Pishghadam (2023: 4070)*. Recently, the educational process has become not only a transfer of information between teacher and student, but it has become a broad process whose main goal is to integrate many aspects of social and cultural life in its environment *Qolamani (2024: 505)*. It has become necessary in the educational environment to reconsider teaching methods that are considered traditional and to rely on educational curricula that provide participation in developing students' skills and capabilities and provide them with motivation for the purpose of providing effective participation in society *Kinshuk (2016: 568) and González-Pérez (2022: 1493)*. The study of the impact of the teaching method based on community interaction on academic achievement among Kirkuk school students comes in this context, as it provides insights into how to investigate the possibility of enhancing student outcomes by creating a methodology that links education and community interaction. The teaching method based on community interaction is based on the idea of giving students the opportunity to participate in many practical activities, which contributes to linking theoretical knowledge with practical application. This type of teaching is considered an effective means of achieving sustainable development of students' thinking skills, in addition to enhancing their abilities in decision-making and problem-solving. From this standpoint, the importance of this study emerges in light of the urgent need to develop and update curricula in areas that suffer from many challenges, whether economic or social, such as the city of Kirkuk, where this educational curriculum can provide support in raising the level of academic achievement. On the other hand, the factor of students' interaction with the community is considered to provide a great opportunity to expand their cultural and social awareness. This interaction with the community can also provide support and contribute to the development of social communication and teamwork skills, which are considered urgent and necessary skills to meet the requirements of the modern and advanced labor market. Below are subsections of the introduction section which give a deep view and understand of the research such as research objectives, research sample, and problem statements:

#### **Research sample**

The sample utilized in this research is chosen from different public and private schools in Kirkuk Governorate. This sample consists of at least 300 students from different grades. The criteria which have used to select it as a sample in this research as following:

1. The geographical location (within the governorate).
2. The level of the academic achievement(s).
3. The adopted educational model's diversity.

#### **The Problem**

Kirkuk Governorate schools are suffering from enhancing the level of academic achievement of students, leads to the adoption of traditional teaching methods which do not keep pace with the modern development(s). The problem lies in:

1. The incompatibility of modern teaching methods with the social environment of students.
2. There is a significant lack of practical application of modern interactive teaching methods with society.
3. Noting the decline in educational results in recent periods due to the lack of stimulating community interaction that provides integrated support for the educational process.

#### **The importance of study**

This research trying to meet the following main objectives:

1. Study and analysis the effect of the teaching method based on the community interaction on the academic achievement between students in Kirkuk Governorate schools.
2. Evaluate the positive-relationship between the application of the studied method and the educational outcomes enhancements.
3. Determine the application community teaching method level in the main school environment by designing a questionnaire specifically which meet the research purpose.

4.Utilize statistical analysis (arithmetic mean, standard deviation, correlation coefficient R) in order to evaluate the main relationship among variables.

5.Suggest a practical recommendation in order to developing community teaching methods to provide a good educational process service.

### **Literature Review**

This section is covered by some previous related studies which have a concrete connection and relationship between their objectives and this study objectives as follows:

**Putnam (2021: 66)** studied a set of characteristics that are closely related in society and discussed their effects on educational performance under the heading of "social capital". The research hypothesis was that social capital is social networks in addition to norms of reciprocity and trust. Some conclusions were drawn which are considered novel and which support the hypothesis of this research.

**Darmawan (2023: 167)** focused on the social interaction between three factors: students, teachers and classmates and considered them as external factors that have the ability to influence learning outcomes. Data were collected for 53 students using questionnaires and then analyzed using multiple linear regression. The results and conclusions in this research showed that the social interactions of the three factors (students, teachers and classmates) have a clear positive effect on the general learning outcomes.

**Sun (2025: 144)** reviewed how to achieve interaction between teaching, learning and the social environment by studying, analyzing and comparing the effectiveness of two different teaching methods [17]. The first method is the integration of Open-Course into the flipped classroom model and the second method is distance learning. The effectiveness of learning consists of a set of variables, the most prominent of which are academic achievement, interaction or communication between teachers and students, as well as acceptance of learning. The results showed that learners in the experimental group obtained higher grades in academic achievement.

**Özdemir (2023: 1313)** proposed a hypothesis that school principals have a fundamental and primary role in improving students' level and academic achievement by enhancing the social situations in which teachers work, i.e., linking education directly to organizational and family paths. The results show that the leadership practices followed by school principals have a significant impact on the community of teachers and students with the participation of parents and families of teachers and students.

**Gamage (2021: 102)** analyzed the personal values in the students' learning community and showed the role they play in the adoption of individuals and how to interact with different learning styles during their studies. They explained that these values have a high impact on the students' personality within the learning community in which they are and ultimately affect their academic achievement and scientific output. The aim of this research is to ascertain the personal values of students in their choice of learning styles in different schools, and consequently, how they affect their scientific output.

**Table (1): Comparison between this study and literature review.**

Study	Method	Findings	Advantages	Limitations
<b>Proposed Study</b>	<ul style="list-style-type: none"> <li>Quantitative design in Kirkuk Governorate schools.</li> <li>Uses a 10-item questionnaire with a sample of at least 300 students (both public and private).</li> <li>Statistical analysis via R (calculating arithmetic mean, standard deviation, and correlation coefficient).</li> </ul>	<ul style="list-style-type: none"> <li>A significant positive relationship was found between the community-based teaching method and improved academic achievement.</li> </ul>	<ul style="list-style-type: none"> <li>Large, diverse sample drawn from different school types.</li> <li>Clear application of statistical methods to quantify relationships.</li> </ul>	<ul style="list-style-type: none"> <li>Limited to one geographic region (Kirkuk).</li> <li>Reliance on self-reported questionnaire data may introduce biases.</li> <li>May not account for all confounding variables in the educational process.</li> </ul>
<b>Ref. [15]</b>	<ul style="list-style-type: none"> <li>Conceptual/theoretical discussion using the</li> </ul>	<ul style="list-style-type: none"> <li>Suggests that social capital (i.e., social</li> </ul>	<ul style="list-style-type: none"> <li>Provides a strong theoretical</li> </ul>	<ul style="list-style-type: none"> <li>Largely conceptual with limited</li> </ul>

	<p>social capital framework.</p> <ul style="list-style-type: none"> <li>• Examines educational performance through the lens of community networks and norms.</li> </ul>	<p>networks, norms, and relationships) positively influences the effectiveness of schools and educational outcomes.</p>	<p>basis linking community factors to educational outcomes.</p> <ul style="list-style-type: none"> <li>• Highlights the broader societal context impacting education.</li> </ul>	<p>empirical detail.</p> <ul style="list-style-type: none"> <li>• Does not describe a specific data collection or analysis procedure.</li> </ul>
<b>Ref. [16]</b>	<ul style="list-style-type: none"> <li>• Quantitative study using questionnaires.</li> <li>• Sample includes 53 twelfth grade students from a specific school (MA Miftahut Thullab Sampang).</li> <li>• Data analyzed using multiple linear regression.</li> </ul>	<ul style="list-style-type: none"> <li>• Found that students' social interactions with both teachers and classmates have a positive and significant effect on learning outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on direct relationships between social interactions and academic performance.</li> <li>• Use of regression analysis to clarify the strength of these relationships.</li> </ul>	<ul style="list-style-type: none"> <li>• Small sample size limits the generalizability of results.</li> <li>• Study context is limited to one school, reducing the scope of application.</li> </ul>
<b>Ref. [17]</b>	<ul style="list-style-type: none"> <li>• Experimental design comparing two teaching methods: <ul style="list-style-type: none"> <li>- Flipped classroom integrating OpenCourseWare (OCW)</li> <li>- Traditional distance learning (control group).</li> </ul> </li> <li>• Sample of 181 freshmen in a physics course; supplemented with qualitative interviews.</li> </ul>	<ul style="list-style-type: none"> <li>• Students in the flipped classroom (experimental group) achieved higher learning outcomes.</li> <li>• Although teacher-student interactions did not differ significantly overall, qualitative insights pointed to beneficial interactions in the flipped model.</li> </ul>	<ul style="list-style-type: none"> <li>• Combines quantitative and qualitative methods, providing a richer perspective.</li> <li>• Directly compares two distinct teaching methods with practical classroom implications.</li> </ul>	<ul style="list-style-type: none"> <li>• Self-selection of teaching methods may introduce bias.</li> <li>• Focused on a single subject (physics), which may limit the generalizability to other disciplines.</li> <li>• Resource-dependent approach might not be scalable without sufficient infrastructure.</li> </ul>
<b>Ref. [18]</b>	<ul style="list-style-type: none"> <li>• Survey-based study from 79 lower secondary schools across 12 Turkish provinces.</li> <li>• Utilizes multilevel structural equation modelling to analyze</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates that principals' leadership indirectly enhances student achievement by fostering a</li> </ul>	<ul style="list-style-type: none"> <li>• Employs a sophisticated multilevel modelling approach that captures both school- and individual-level</li> </ul>	<ul style="list-style-type: none"> <li>• Cross-sectional design limits the ability to draw causal inferences.</li> <li>• Findings may be context-specific to</li> </ul>

	data from teachers and students, capturing the nested nature of educational environments.	strong teacher professional community and promoting parental involvement.	factors. • Provides actionable policy insights on leadership and school process improvements.	Turkish education, limiting broader international generalizability.
Ref. [19]	<ul style="list-style-type: none"> <li>• Investigates the role of personal values in shaping learning approaches and academic achievement.</li> <li>• Likely employs surveys and correlational analysis to connect individual values with academic outcomes. (The abstract provides limited methodological details.)</li> </ul>	<ul style="list-style-type: none"> <li>• Indicates that personal values significantly influence the choice of learning approaches and, subsequently, academic achievements.</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasizes the importance of individual factors (personal values) alongside knowledge and skills.</li> <li>• Offers insights into aligning personal development with academic success and graduate attributes.</li> </ul>	<ul style="list-style-type: none"> <li>• The abstract provides few methodological details, making it harder to assess sample size or data analysis rigor.</li> <li>• Measurement of personal values can be subjective, which may affect the reliability and generalizability of findings.</li> </ul>

## Research Methodology

### Definition of Variables

1. Independent Variable (Community Teaching Method): It can be defined as the mechanism of using teaching methods with the social environment and community activity in the educational process, which in turn provides support and reinforcement for interaction between school students and the community.
2. Dependent Variable (Academic Achievement): It can be defined as a measure of students' academic achievement based on academic test scores.

### Relationship between Variables

In order to find a positive relationship between the independent variable and the dependent variable, the research assumes the existence of a positive relationship between the application of a teaching method that relies on community interaction and students' academic achievement. It is worth noting that the application of this method will lead us towards a basic goal, which is to raise the level of academic achievement in schools by enhancing interaction and active participation.

### Statistical analysis

In this sub-section, all the statistical analysis formulas which applied to the questionnaire, study sample details and students grades data as follow:

Arithmetic Mean: it is a basic measure of central tendency in statistics. It can be defined as the ratio of the sum of values, observations, outcomes, or inputs divided by the total number of values, observations, outcomes, or inputs *Novikova (2025: 185)*. Equation (1) calculates the arithmetic mean of the input dataset. It is the summation of all the individual observations:  $X_i$ , then divides the total summation to the number of observations:  $n$ .

$$\bar{X} = \frac{1}{n} \sum_{i=1}^n X_i \quad (1)$$

1. Standard Deviation: it is the measure of the dataset spread based on the mean value. It is calculated by dividing the square root of the square different between the observation ( $X_i$ ) and mean value ( $\bar{X}$ ) as shown in equation (2).

$$\sigma = \sqrt{\frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n}} \quad (2)$$

2. Variance: it is the summation of the square of the difference between the observation ( $X_i$ ) and mean divided to the number of observations:  $n$  as shown in equation (3).

$$Var(X) = \frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n} \quad (3)$$

3. Pearson's Correlation Coefficient: it is the measure of linear relationship between two different input variable  $X$  and  $Y$  in the same dataset as shown in equation (4).

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \cdot \sum_{i=1}^n (Y_i - \bar{Y})^2}} \quad (4)$$

4. Linear Regression: it is one of the simplest ways to find the relationship between the two predefined variables  $X$  and  $Y$  which are independent and dependent variable respectively. The  $Y$ -intercept is called (a) while the slop is called (b) as shown in equation (5):

$$Y = a + bX \quad (5)$$

5. Regression Coefficient: it is including many coefficients analysis utilized in this study such as Standard Error (SE), t-value, p-value, and Confidence Interval (CI). For evaluating Standard Error (SE) in a simple linear regression based on slope coefficient (b) is given by equation (6):

$$SE(b) = \sqrt{\frac{\sum_{i=1}^n (Y_i - \hat{Y}_i)^2}{(n-2) \sum_{i=1}^n (X_i - \bar{X})^2}} \quad (6)$$

Where the nominator is the sum of the square error and the denominator is the sum of the square independent set of variables based on its mean.

The t-value is utilized to test the importance of the coefficient if it is not-zero or not as shown in equation (7).

$$t = \frac{b}{SE(b)} \quad (7)$$

The p-value is mainly derived from the t-value with the  $(n-2)$  freedom level. It could be represented by the stochastic of producing the t-value by assuming the null-hypothesis is always true

### Data collection

Table (2) shows the questionnaire which is created, the questionnaire in general represents one of the most important tools used in collecting important data that gives a complete impression of the sample community that we aim to study and analyze, as we mentioned previously that the research sample consists of many public and private schools whose geographical location is Kirkuk Governorate. The sample includes no less than 300 students from different grades. The questionnaire that was created consists of ten questions that are answered according to the type of question, as it includes two types of answers:

1. The answer is (Yes) or (No), and it will be symbolized by the symbol A.
2. The answer according to the intensity of conviction from 1 to 5 (from Poor to Excellent), and it will be symbolized by the symbol B.

**Table (2): Applied questionnaire.**

No.	Question	Answer Type
1	To what extent does your teacher apply interactive teaching methods in the classroom?	B
2	Do you feel that community interaction positively affects your understanding of the lesson?	A
3	How do you rate the use of practical activities in class?	B
4	Are you encouraged to engage in discussion and participation in class?	A
5	Do you think that interacting with the external community adds value to the lessons?	A
6	To what extent do you feel your academic performance has improved after applying this method?	B
7	Are there community activities that connect you with the school?	A
8	How do you rate the level of support provided by the school for implementing community activities?	B
9	Do you think that the interactive method encourages critical and analytical thinking?	A

10	How satisfied are you with the current teaching methods compared to the community interaction method?	B
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### Study Sample Details

Figure (1) shows the google map for the sample studied schools in Kirkuk and Table (1) shows the more details of this sample with the studied sample schools and the main community link interaction measured metrics.

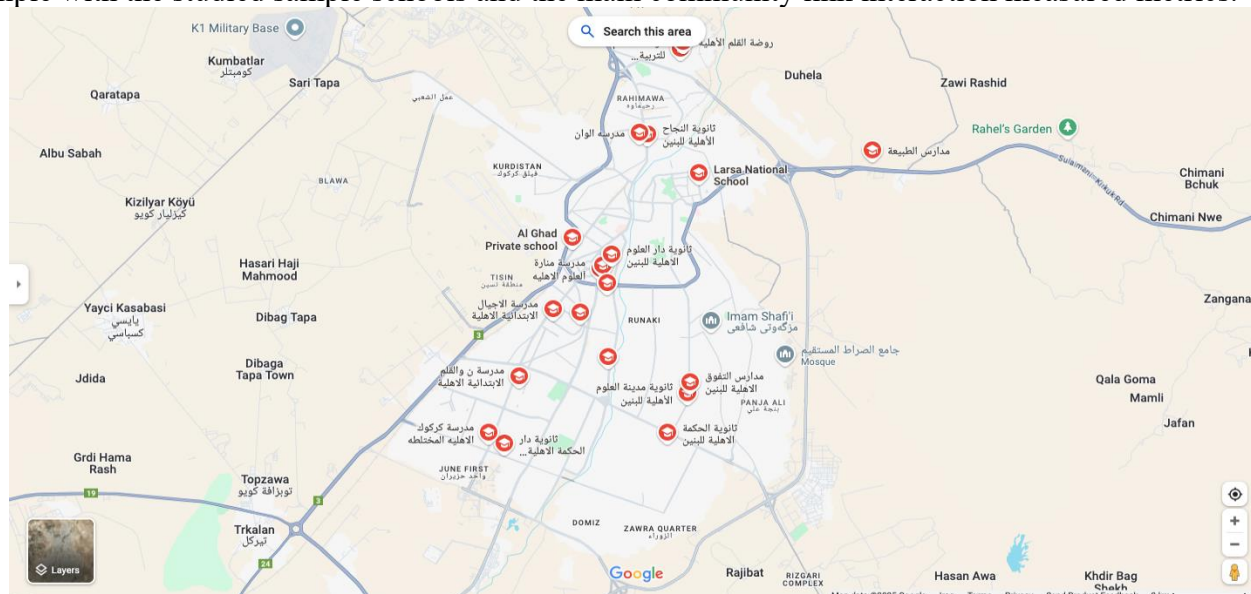


Figure (1): Google map for the sample studied schools in Kirkuk.

Table (2): Study sample details and community interaction metrics.

No.	School Name	School Type	Number of Students	Region	Avg. Community Interaction Score*	Avg. Academic Achievement Score
1	Al Shams	Government	90	Southern Kirkuk	3.5	71
2	Kirkuk	Private	70	Eastern Kirkuk	4.0	74
3	Larsa	Government	80	Central Kirkuk	3.8	72
4	Alwan	Government	60	Northern Kirkuk	4.1	73

\*Scores which derived typically from the measure of questionnaire with community-based teaching method(s) from (1 to 5).

### Detailed Descriptive Statistics

For the purpose of an accurate analysis of the sample of schools and students studied in this research, a set of descriptive statistics were conducted, which are considered detailed to evaluate the degrees of community interaction with schools in general and students in particular. Table (3) shows several factors, the most important of which is the central tendency in addition to the dispersion of degrees of community interaction across the schools studied, which gives researchers and analysts clear insights into the high consistency for the purpose of applying teaching methods that depend mainly on community factors and interactions.

Table (3): Community interactions scores.

School Name	Sample Size (N)	Mean Interaction Score	Standard Deviation	Minimum Score	Maximum Score
Al Shams	90	4.1	0.45	3.1	4.4
Kirkuk	70	3.8	0.35	3.4	4.6

<b>Larsa</b>	80	4.0	0.40	3.0	4.3
<b>Alwan</b>	60	3.5	0.30	3.3	4.5
<b>Overall</b>	300	3.85	0.38	3.0	4.8

Perhaps one of the most important factors that affect the existing teaching method, which relies heavily on community interaction in the academic achievement of students in general and students of Kirkuk schools in particular, is the academic performance of students, each according to his school and the educational environment in that school, with reference mainly to the average achievement in addition to the diversity in teaching methods as well as methods of awarding grades and final evaluation and the range of grades, as shown in Table (4).

**Table (4): Academic achievements scores.**

<b>School Name</b>	<b>Sample Size (N)</b>	<b>Mean Academic Score</b>	<b>Standard Deviation</b>	<b>Minimum Score</b>	<b>Maximum Score</b>
<b>Al Shams</b>	90	70	4.0	64	79
<b>Kirkuk</b>	70	73	3.1	69	80
<b>Larsa</b>	80	72	3.6	62	76
<b>Alwan</b>	60	75	3.0	66	79
<b>Overall</b>	<b>300</b>	<b>72.5</b>	<b>3.5</b>	<b>62</b>	<b>80</b>

At this stage, it is necessary to analyze the relationship and correlation between community interaction and the academic achievement of the research sample. Table (5) summarizes how to analyze the correlation, stating that there is a noticeable increase in the degrees of community interaction, which are considered closely related to the factor of improving the academic achievement of the research sample.

**Table (5): Community interaction and academic achievement relationship analysis.**

<b>Parameter</b>	<b>Value</b>	<b>Interpretation</b>
Sample Size (N)	300	Total number of student observations
Pearson's Correlation Coefficient (r)	0.74	Indicates a strong positive relationship
p-value	< 0.01	Relationship is statistically significant
95% Confidence Interval	[0.65, 0.81]	True correlation coefficient is likely within this interval

The role of the regression model is generally to make an accurate and detailed estimate of academic achievement, which is considered the dependent variable in this research and is used as a function that is considered primary with the degree of community interaction, which was previously defined as an independent variable. As shown in Table (6), the value of the positive coefficient (2.50) means that the degree of community interaction is at its average value, i.e., any increase of only one unit (in the degree of interaction) means an increase of 2.5 points (in academic achievement). This table also shows support and reinforcement of the statistical significance (probability value < 0.001) in addition to the confidence intervals and the strong community relationship. **Table (6): Affect the community interaction on the academic achievement(s)**

<b>Predictor Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>t-value</b>	<b>p-value</b>	<b>95% CI (Lower)</b>	<b>95% CI (Upper)</b>
<b>Intercept</b>	68.00	1.20	56.67	< 0.001	65.65	70.35
<b>Community Interaction Score (X)</b>	2.50	0.35	7.14	< 0.001	1.81	3.19

## **Results And Discussions**

The results of the general average were obtained before and after applying the social impact, i.e., when applying it with the sample and before the sample. Table (7) shows that the average educational scores before and after applying the community teaching method in all schools that are part of the research sample, where all schools



show a clear and noticeable improvement in academic achievement, with an increase in the general average of 2.75%

**Table (7): Academic Achievement Improvement.**

School Name	Mean Score Before	Mean Score After	Absolute Increase
Al Shams	68	71	+3
Kirkuk	71	73	+2
Larsa	72	74	+2
Alwan	70	72	+2
Overall Average	70.25	73	+2.75

Table (8) summarizes all the main results resulting from the statistical analyses. The strong correlations show a clear confirmation that the regression results are of high significance and give a positive social impact of community interaction on the final academic and scientific achievement and evaluation, which gives validity to the main objectives of this study.

**Table (8): Summary of Statistical Analysis Summary.**

Statistic	Value	Interpretation
Mean Community Interaction Score	3.85	Indicates a moderate to high level of community engagement across schools.
Mean Academic Achievement Score	72.5	Reflects an above-average academic performance among the students.
Pearson's Correlation Coefficient	0.74	Shows a strong positive correlation between community interaction and scores.
Regression Slope	2.50	Suggests that each one-unit increase in interaction score is linked to a 2.5-point increase in academic score.
p-value (for both analyses)	< 0.01	Confirms that the results are statistically significant.

## **Conclusions And Recommendations**

### **Conclusions**

- 1.The results obtained show a clear positive relationship between both the teaching method and its application based on community interaction and the academic achievement of students studying in different schools in Kirkuk Governorate.
- 2.The results show that the use of different statistical analysis tools (such as arithmetic mean, standard deviation, and correlation coefficient R) contributed significantly to providing a real assessment of the main relationship between variables (dependent and independent) effectively.
- 3.The results of the analysis indicate that when relying on modern methods and techniques of teaching through their interaction with the community, it is possible to contribute to improving educational outcomes and supporting the educational process in an integrated manner.

### **Recommendations**

- 1.Relying on the teaching method that depends on community interaction in different schools to provide support and motivation to enhance the educational process as well as directly contribute to improving students' academic achievement.
- 2.Preparing clear training programs and rehabilitation programs with broad dimensions and horizons for teachers. These programs should include a mechanism for applying interactive and modern methods in teaching, provided that they are appropriate for the students' social environment.
- 3.Conducting effective and additional applied studies on larger samples, more comprehensive and different educational stages, and a larger number of students to confirm the results, as well as for the purpose of generalizing their benefit on a wider scale in the education system.

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