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The Impact of Teaching according to Online Survey Communities on the Communication Skills of First-Grade Female Students

Roua Qasim Waheed Al-Nayli[1], Dr. Nepal Abbas Hadi Al-Mahja[2]

Abstract

The current research aims to identify the impact of teaching according to the online survey communities on the communication skills of first-intermediate-grade students.

Therefore, the researcher formulated the research hypothesis:

"There is no statistically significant difference at the level of significance (0.05) between the mean scores of the students of the experimental group who will study according to the online survey communities and the average scores of the students of the control group who will study in the usual way in the communication skills scale."

The current research identifies female students in the first intermediate grade in government day schools affiliated with the Directorate of Education of Al-Qadisiyah and the subject of science (the last four chapters) from the science book curriculum scheduled for the academic year 2022/2023 for the first intermediate grade. The researcher chose the experimental design with partial control (the experimental group and the group control) with a post-test for achievement, and a medium (Al-Rahma for Girls) was selected in a simple random way to represent the sample of the current research, and two divisions were chosen from the first intermediate grade of (74) students in a random manner, for each division (37) students, as division (A) an experimental group and division (b) a control group, and the researcher equalized the two groups of the current research in the variables (chronological age and intelligence, and the communication skills scale), and the researcher also prepared the study tool, represented by preparing the communication skills scale, which consists in its final form of (40) items On (six skills) with (eight items) for speaking skills, (seven items) for listening skill, (five items) for writing skill, (seven items) for reading skill, (eight items) for visual non-verbal communication skill, and (five items) for skill Audio non-verbal communication, apparent validity, content validity and reliability were verified for this tool.

The researcher applied the experiment in the second semester of the academic year 2022/2023. The experiment lasted (eight) weeks, and the data was analyzed and processed using the statistical analysis package for social sciences (SPSS) and the program (Microsoft Excel) by using the t-test for two independent samples and coefficient effect size.

The researcher reached the following results:

The result related to the research hypothesis of the results of the communication skills scale indicated that there were statistically significant differences between the mean scores of the students of the experimental group who studied the science subject in the survey communities via the Internet and the mean scores of the students of the control

[1] Teacher, Educational Directorate of Diwaniyah, rouaqasim463@gmail.com.
[2] Department of Educational and Psychological Sciences, Faculty of Education, Al-Qadisiyah University, Iraq, Nibal.Hady@qu.edu.iq

group who studied the same subject in the usual way in the variable of thinking skills in favour of the students of the experimental group.

Keywords: *teaching, inquiry societies, communication skills, first-grade intermediate.*

1- Introduction

1-1 Problem of the Research

The researcher reviewed several studies and research that confirmed a weakness in communication skills, the study (Al-Ayasra, 2013).

The researcher believes that the teaching methods that are used by the teaching staff, and they most likely tend to teach in the usual teaching methods, as they made the learner a passive role through receiving that information, memorizing it, and then retrieving it without trying to make him interactive and active, and from the modest experience of the researcher in teaching for some time. Six years ago, she noticed a weakness in most communication skills, prompting the researcher to discuss male and female teachers when meeting with them in preparation and training to ensure this decline and to find out the real reasons that led to that.

However, this problem remains categorically uncertain unless scientific research confirms this, and based on that, the researcher may conduct her research based on the previous the researcher decided to teach by using online survey communities. To verify its contribution to improving the students' communication skills.

From the preceding, the problem of the current research is determined by answering the following question:

What is the effect of teaching, according to survey communities via the Internet, on the communication skills of first-grade intermediate students?

1-2 Importance of Research

The many developments in the current era have led to increasing changes in the field of science and technology and the fields of knowledge and how to obtain them. Providing a huge amount of reading and audio sciences opened up new and multiple horizons for the learners (Abu Allam, 1986: 18).

Based on the preceding, the researcher can summarize the importance of the research in the following points:

1-2-1 Providing those interested in online survey communities with a theoretical background.

1-2-2 The research, with its independent and dependent variables, is in harmony with the interests of the Ministry of Education in Iraq in developing and modernizing teaching methods.

1-2-3 Providing those interested in the intermediate stage with a measure of communication skills suitable for application to learners in the first intermediate grade.

1-2-4 Explaining the importance of teaching according to online survey communities as one of the modern teaching models that may contribute to increasing communication skills, making their Role more active inside or outside the classroom.

1-3 Search Objectives

The current research aims to identify:

1-3-1 The effect of teaching according to online survey communities on the communication skills of first-grade female students.

1-4 The Research Hypothesis

The researcher formulated the following null hypothesis:

1-4-1 "There is no statistically significant difference at the level of significance (0.05) between the average scores of the students of the experimental group who will study according to the online survey communities and the average scores of the students of the control group who will be taught in the usual way in the communication skills test."

2- Theoretical background

2-1 The concept of survey-based learning communities across the web

Survey-based learning communities via the web are getting more and more attention day after day as a result of several factors, including the shift towards e-learning, the expansion of the use of online learning environments, and the increased demand for online learning, which has changed the nature of the perception of learning and education, how it occurs, and the contexts appropriate learning, to meet the challenges and dangers that may accompany face-to-face learning, the great development in digital applications, so some opinions dealt with the concepts associated with it in various forms, as some defined it as a set of processes that depend on the continuous exploration of knowledge and that contribute to the learner's involvement in learning (118: al., 2018, Suarez et al.).

It is also an appropriate conceptual framework for realizing and addressing the variables of online learning and the associated educational interactions in a way that enhances cooperation and partnership between learners and each other and with the teacher (Yandra et al., 2021: 65). It is also defined as a set of online survey activities based on sharing, exchanging ideas and viewpoints, and taking responsibility for learning (Chen et al., 2017: 165). In light of this, the researcher found that learning according to online survey communities is a dynamic learning environment that includes a set of interaction processes, participation, and reflection on learning, and metacognitive skills, which are implemented through a set of social investigative strategies to build learning and achieve its goals.

2-2 The Effect:

Below is a table of some of the concepts of impact for several researchers, each according to their backgrounds and opinions:

Table (1) shows some concepts of impact for several researchers, each according to their backgrounds and opinions

researcher and year	the definition
(Shehata and Al-Najjar, 22:2003)	**The outcome of a change, whether desirable or undesirable, that occurs to the learner as a result of the learning process**
(Saleh, 2014, 14)	**It is the ability demonstrated by the factor in the subject of the study to produce a positive result. Still, if it is a negative result, this factor is one of the direct causes associated with these failures.**

The researcher theoretically adopts the definition of (Shehata and Al-Najjar, 2003) due to its suitability for the research.

The researcher defines it procedurally as the amount of change expected to be caused by online survey communities in the learning outcomes of middle-grade female students (the experimental group) in their achievement in science, measured by their scores in the achievement test prepared for this purpose, as well as in their communication skills,

which is measured by their scores in The communication scale prepared for this purpose, after the end of the research experiment.

2-3 Teaching:

Below is a table of some teaching concepts for several researchers, each according to their backgrounds and opinions:

Table (2) for some teaching concepts for several researchers, each according to their backgrounds and opinions:

researcher and year	the definition
(Abu Hilal, 1979: 5)	**The process of interaction between the teacher and the learners in the classroom, the lecture hall, or in the laboratories**
(Qatami et al., 2008: 20)	**A continuous activity aimed at stimulating learning and facilitating the task of achieving it. Teaching behaviour includes a set of communicative actions and decisions that are invested and employed in an intended manner by the teacher, who acts as a mediator within the framework of an educational situation.**
(Ali, 2011: 147)	**A set of educational procedures and activities intended for learning and available by the teacher, through which interaction takes place between him and the learners to facilitate the learning process and achieve the learner's comprehensive and integrated growth.**

The researcher adopts the definition of (Qatami et al., 2008) theoretically due to its suitability for the research.

The researcher defines it procedurally as a set of intended educational and learning procedures and activities, which the researcher follows and through which interaction takes place between her and the first-grade intermediate students (the control group and the experimental group) to facilitate the process of learning science.

2-4 Objectives of inquiry learning

The learning objectives can be summarized by inquiry as follows:

2-4-1 Making the learner think and produce using his information, senses, and intellect in a state of integration and harmony to confront what arouses him leads to questioning and the desire to find explanations.

2-4-2- Make the source of suspense and motivation internal because the reinforcement comes from the scientific activity itself and from the excitement that the learner feels while discovering the information.

2-4-3 Developing the ability to plan and identify the sources of information and how to collect it.

2-4-4 Developing the ability to use various sources of knowledge, such as books, periodicals, documents, films, museums, and websites on the Internet (Qtait, 2011: 131).

2-4-5 Develop curiosity among learners.

2-4-6 Developing the spirit of cooperation and accepting the self-challenge among the learners.

2-4-7 Providing learners with the skills of inquiry, problem-solving, and using the scientific method in thinking (Al-Zuhairi, 2015: 240).

2-4-8 Encouraging teamwork makes learners learn from each other and exchange ideas.

2-4-9 Investigative activities diversify the learning styles of learners in one lesson.

2-4-10 Developing multiple intelligences.

2-4-11 Integration between the different curriculum subjects because the investigative activities require the learners to summarize, draw, and use their different abilities, such as arithmetic abilities, computer use, and writing reports, thus developing creativity and discrimination.

2-4-12 Developing basic and integrative science processes (Ambo Saidi and Suleiman, 2015: 199-200)

2-5 Communication skills

Below is a table of some concepts of communication skills for some researchers, each according to their backgrounds and opinions:

Table (3) shows some concepts of communication skills for several researchers, each according to their backgrounds and opinions:

researcher and year	the definition
(Al-Jawad and Qandil, 2013, 186)	**A continuous process through which experiences are exchanged between two or more parties using verbal or non-verbal messages, which helps in achieving understanding and interaction between them, influencing behaviour and achieving goals, and among the most prominent communication skills: speaking, listening, persuasion, self-understanding, self-control, effective presentation, reading and managing meetings**
(Katebi, 2015: 22)	**The individual's ability to deal with them, the extent of his adaptation, taking into account their moods, motivation, and social communication, leads the individual to benefit from all the social parties surrounding him, and the person is considered dead without social relations. Communication means life.**
(Hassan, 2017: 18)	**A positive communicative process through which educational information and activities are supported by using positive words, symbols, and expressions on the part of the teacher to the learners to achieve cognitive communication.**

(Yavuz & Guzel, 2020, 299) It is an interactive process between at least two people to form common meanings.

The researcher adopts the definition of (Katebi 2015) due to its suitability.

The researcher defines it procedurally: it is the ability of the research sample students, in both the experimental and control groups, to deal with others, social communication, adaptation, and compatibility with them, which is measured by the degree they obtain in the communication skills scale prepared for this purpose.

2-6 Types of communication skills

Communication skills are divided into two types:

2-6-1 Verbal communication

It is divided into two parts:

Oral communication skills and written communication skills

2-6-1-1 Oral communication skills: It includes two skills:

2-6-1-1-1 Listening skill: It is through which the verbal message is received, and the receiver understands its meanings and significance.

2-6-1-1-2 Speaking skill: It is done by conveying the message by using words orally by the sender.

2-6-1-2 Written communication skills: It includes two skills:

2-6-1-2-1- Reading skill: It is done by receiving the written message and understanding its meanings to the recipient, and since the message is written, the reading skill is considered one of the written communication skills.

2-6-1-2-2 Writing skill: It is done by conveying the message using the words written by the sender. (Katebi, 2015: 53)

2-6-2 Verbal communication Non-

It is associated with individuals using a set of gestures, movements, or vocal or physical expressions to convey their messages, and it is divided into two parts:

2-6-2-1 Vocal non-verbal communication skills: It is intended to diversify the pitches and tones of the voice to convey the meaning of the word because the tone of voice gives a meaning other than the true meaning of the word, and from here, the tones of the voice were considered among the non-verbal skills.

2-6-2-2- Visual non-verbal communication skills: It means the movements of the hands, facial expressions, eyes, and smiles, and it is revealed through visual observation by others.

(Abbas, 2018: 159)

2-7 The first grade is intermediate

It is the first grade of the intermediate stage according to the diversified education system adopted by the Ministry of Education.

3- The practical side

This chapter includes a presentation of the research methodology to achieve the objectives of the research "The Effect of Teaching According to Online Survey Communities on the Achievement of Science for First-grade Female Students" in terms of choosing the experimental design, defining the research community, the method of selecting the sample, the methods of equivalence of the two research groups, and a presentation of the research requirements, its tools, how to apply them. The means The statistics used to analyze the results, and the following are details of the procedures as mentioned above:

3-1- Research Methodology:

The researcher followed the experimental approach with partial control to achieve her research objectives, as it is an appropriate approach for the research procedures.

3-2- Experimental Design Selection:

It is defined as a blueprint or work program for how to implement the experiment, and by experiment, we mean planning the circumstances and factors surrounding the phenomenon that we are studying in a certain way and then observing what happens.

(Abdul Rahman and Adnan, 2007: 487)

The research design is the plan that the researcher sets to reach an answer to his research problem, as well as to adjust the variation in the degrees of the dependent variable so that it is due to the independent variable.

(Al-Tayyib et al., 2005: 132), And because the current research includes one independent variable and one dependent variable, the experimental design with partial control (the experimental group and the control group) with post-test achievement was chosen because it is the appropriate design to achieve the research objectives, as shown below in the Table.

Table (4) The experimental design of the research prepared by the researcher

	the group	parity	the independent variable	dependent variable	the tool
1	Experimental	• Chronological age • Intelligence • Communication skills scale	Online survey communities	communication skills	Communication skills scale
2	Control		the usual way		

3-3- Population of Research

It is about all the people and individuals who are the subject of the research problem, and it is all the elements related to the problem of the study through which the researcher seeks to generalize the study results (Abbas, 2010: 217). The current research population has been determined by all female students in the first-grade average in the government day intermediate schools affiliated with the Directorate of Education in the Al-Qadisiyah Governorate Center for the academic year (2022-2023), and their number is (17991) students, obtained from the Statistics Department of the Directorate of Education of Al-Qadisiyah.-3- 3-4- Sample of Research

The sample refers to the model that includes an aspect or part of the units of the original research community and is representative of it so that it bears its common characteristics. (Nofal and Faryal, 2010: 232)

The main objective of selecting a sample is to obtain information about the original community for the research. After obtaining the official approval in the letter facilitating the task, Appendix (1), Al-Rahma Intermediate School was chosen randomly from among the schools affiliated with the Directorate of Education of Al-Qadisiyah, which contained (156) students. The first intermediate grade is divided into four divisions: Division (A) includes (37) students, Division (B) includes (37) students, Division (C) includes (42) students, and Division (D) includes (40) students, and in coordination With the school administration, by the method of simple random assignment and by the method of drawing lots, the research sample was selected, as Division (A) represented the experimental group, and Division (B) the control group, and the Table below (5) explains this:

Table (5) Number of female students in the research sample (experimental and control groups)

	the group	before exclusion	The excluded	after exclusion	total summation
1	Experimental	37	Nothing	37	74
2	Control	37	Nothing	37	

3-5- Control Of Experiment

3-5-1- Equivalence

To reward the two research groups, the researcher adjusted the factors (age, intelligence, communication skills scale) for the experimental and control groups:

The chronological age of the female students was calculated from birth until the day (1-3-2023), and the information was obtained. An intelligence test (Danelli's Shapes) was applied to the research sample for the control and experimental groups. This type of intelligence test was chosen as it can be easily applied to the sample. It is a non-verbal test characterized by honesty and stability, as well as its suitability for the research sample and suitable for the Iraqi environment. It consists of (45) paragraphs applied to the research sample, and each paragraph is given one degree for the correct answer; thus, the final test score is (45) degrees. The researcher relied on the communication skill scale in The research supplement. The t-test was applied to the two independent samples to find the difference between the two independent samples. 72), which means that there is no

statistically significant difference in the factors (age, intelligence, achievement of half-year grades for science) for the students of the two research groups, meaning that the two groups are equivalent in the factors (age, intelligence, measure of communication skill) as in Table (6)

Table (6) The arithmetic mean, standard deviation, and the two T-values (calculated and tabulated) factors (age, intelligence, achievement for communication skills) for the experimental group and the control group (before)

The arithmetic mean, standard deviation, and the two T values (calculated and tabulated) for the chronological age calculated in months for the experimental and control groups (before)								
	the group	**The number of students**	**M**	**S.D**	**d.f**	**T value**		**significance level 0.05**
						calculated	**Tabular**	
1	**Control**	**37**	**161.973**	**10.029**	**72**	**1.698**	**1.99**	**not statistically significant**
2	**Experimental**	**37**	**158.432**	**7.762**				
The arithmetic mean, standard deviation, and the two T values (calculated and tabulated) for the intelligence variable for the experimental and control groups (before)								
1	**Control**	**37**	**17.97**	**6.978**	**72**	**0.29**	**1.99**	**not statistically significant**
2	**Experimental**	**37**	**17.43**	**8.921**				
The arithmetic mean, standard deviation, and the two T-values (calculated and tabulated) for communication skills for the experimental and control groups (before)								
1	**control**	**37**	**77.08**	**17.39**	**72**	**0.006**	**1.99**	**not statistically significant**
2	**Experimental**	**37**	**77.05**	**18.93**				

3-6- Determining the scientific subject:

The scientific subject was defined in the last four chapters of the subject of the second chapter of the science book for the first-grade average, fifth edition (2021)

• Unit Two, Chapter Two: The concept of cell division and its importance

• Chapter Three: Organizing the work of the bodies of living organisms

• The third unit, the first chapter: heredity and evolution

• Chapter Two: Applications of Genetics

3-7- Building a measure of communication skills

Through the researcher's review of several previous studies and measures of communication skills, the researcher built communication skills for the research sample after presenting it to a group of experts and specialists in teaching methods in its initial form, and several paragraphs were modified.

3-7-1. Determine the goal of the scale:

The scale aims to measure the ability of middle school students in communication skills.

3-7-2. Define communication skills:

The researcher was briefed on previous studies and research that focused on the study and development of communication skills and consulted the experts in the research appendix, which consists of (40) paragraphs on (six skills), with (eight paragraphs) on speaking skills (seven paragraphs) for listening skill, (and five paragraphs) for the writing skill, (seven items) for the reading skill, (eight items) for the visual non-verbal communication skill, and (five items) for the vocal non-verbal communication skill.

3-7-3. Formulation of scale paragraphs:

The researcher built the communication skills scale consisting of (40) objective items that include the previously mentioned communication skills. The scale contains three alternatives for each paragraph, which are (fully agree, somewhat agree, disagree) and the student chooses one of these alternatives.

3-7-4. Scale instructions

Special instructions for the communication skills scale were also formulated, including information for the students, the purpose of the scale, the number of its paragraphs, and how to answer the scale paragraphs.

3-7-5. Validity of the scale:

One of the conditions for good measure is the measure's ability to measure what it is designed to measure; that is, it has a close connection with the ability it measures (Al-Bawi and Al-Shammari, 230:2020)

3-7-5-1- Virtual honesty: It is a measure of the apparent face of the questionnaire in terms of it indicating what it was set for and it is measured by arbitrators and specialists (Al-Jabouri, 2018: 168), and accordingly the researcher distributed the questionnaire to a group of specialists In Methods of Teaching Science, Appendix (17), and in the light of their opinions and suggestions, the paragraphs or alternatives that need to be modified were modified after extracting the calculated chi-square value and comparing it with the tabular value of (3.84) at the level of significance (0.05) and the degree of freedom (1). The results showed the validity of the test items. In all of them, the percentage ranged between (100% - 94.7%), while the calculated chi-square values ranged between (19 - 15.21), and therefore the questionnaire items (40) were kept, and Table (15) shows that:

Table (4) shows the statistical significance of the apparent validity of the questionnaire.

	paragraph number	The opinions of the arbitrators			percentage	chi-square value		Statistical significance
		total	agree	not agree		Cal.	Tab.	
1	1-2-3-4-5-6-8-9-10-11-12-14-15-16-19-20-21-22-23-24-25-26-27-28-30-31-33-34-35-37-38-39-40	19	19	0	%100	19	3.84	Statistically function
2	7-18-32-36	19	18	1	94.7%	15.21	3.84	Statistically function
3	13-17-29	19	18	1	94.7%	15.21	3.84	Statistically function

3-8 Statistical analysis of the items of the scale:

The researcher corrected the students' answers for the survey sample on the items of the scale and arranged the scores in descending order to conduct the statistical analysis.

(27%) of the papers obtaining the highest grades, amounting to (31) students were chosen to represent the higher category, and (27%) of the papers obtaining the lowest grades, amounting to (31) students in the lower category, according to the opinion of (Abu Libdeh, 2008: (309)

To measure the psychometric characteristics of the paragraphs of the communication skills scale, the researcher carried out the following procedure:

3-9 Calculation of the scale stability coefficient:

To measure the stability of the study tool (the scale), the researcher used (Cronbach's alpha) to ensure the stability of the study tool on a survey sample consisting of (114). It turned out to be equal to (0.92) if the stability value was (0.68) or above, which indicates

That the scale has high stability and is suitable for measurement purposes (Doran, 1985: 133).

3-10 The scale in its final form:

After verifying the validity and reliability of the scale, it became its final form with (40) items for each communication skill, Table (5), and it contains three alternatives (completely agree, somewhat agree, disagree). It is suitable for the students of the original research sample.

Table (5) Number of items for each communication skill

skill	The number of paragraphs
Speaking skill	**8**
Listening skill	**7**
Writing skill	**5**
reading skill	**7**
Visual, non-verbal communication skill	**8**
Vocal non-verbal communication skill	**5**

3-11 Results and discussion

3-11-1The results of the null hypothesis

The null research hypothesis states that (there is no statistically significant difference at the level of significance (0.05) between the average scores of the students of the experimental group who will study the science subject according to the online survey communities and the average scores of the students of the control group who will study the same subject according to the method normal communication skills)

To verify the validity of the previous hypothesis, the researcher extracted the arithmetic mean, variance, and standard deviation of the students of the two research groups, so it appeared that the mean scores of the experimental group who studied online survey communities were (90.11). The standard deviation was (11.90), and the variance amounted to (141.66), and the average scores of the group's students. The control subjects who studied the usual way amounted to (79.43). The standard deviation amounted to (14.33). The variance amounted to (205.36), and when using the t-test for two independent samples, the statistical results showed a statistically significant difference and that the calculated t-value (3.49) was greater than the tabular value. The value is (1.99) at a level of significance (0.05) and a degree of freedom (72). Table (6) :

Table (6) The arithmetic mean, variance, standard deviation, and the two (calculated and tabulated) values of the scores of the students of the two research groups in the communication skills test

		the group	**number students**	**mean**	**S.D**	**Variance**	**D.F**		**T value**
							calculated	**Tabular**	
1	**Experimental**	**37**	**90.11**	**11.90**	**141.66**	**72**	**3.49**	**1.99**	**Statistically significant**
2	**Control**	**37**	**79.43**	**14.33**	**205.36**				

It is noted from the previous Table and chart that there is a statistically significant difference between the mean scores of the students of the two research groups in the communication skills test in favour of the experimental group.

This result indicates the superiority of the students of the experimental group who studied according to the online survey communities over the students of the control group who studied according to the usual method of testing communication skills, and thus, The second null hypothesis is rejected. The alternative hypothesis is accepted, which states that: (There is a statistically significant difference At the level of significance (0.05) between the average scores of the students of the experimental group who will study the

science subject according to the online survey communities and the average scores of the students of the control group who will study the same subject according to the usual method in communication skills).

3-12 Statement of the effect size of the independent variable on the dependent variable:

The researcher used the Cohen equation to extract the independent variable's effect size (d) in the dependent variable. The amount of the effect size was (0.64), which is a suitable value for interpreting the effect size with an average amount, as shown in Table (19) for the variable of teaching in online survey communities in the thinking skills test In favour of the experimental group, Table (7) shows that:

Table (7) The effect size of the independent variable on the communication skills variable

the independent variable	dependent variable	effect size value (d)	The magnitude of the effect
Online survey communities	**communication skills**	**0.64**	**middle**

3-13 Interpretation of results:

Interpretation of the result related to the research hypothesis:

The result indicated that there were statistically significant differences between the mean scores of the students of the experimental group who studied science in survey societies via the Internet and the mean scores of the students of the control group who studied the same subject in the usual way in the variable of thinking skills in favour of the students of the experimental group. The researcher believes that this may be due to :

3-13-1- The use of survey communities via the Internet while teaching the subject gave an incentive and a sense of competition and positive motivation with the students by presenting ideas and applying them in different aspects of their future lives, and this led to an increase in cognitive communication skills and the continuous reinforcement by the researcher In exciting phrases, she made the students address the problems they face in new situations in the application phase, which helped to increase their communication skills.

3-13-2- Online survey communities are working to raise communication skills and activate those skills with their female colleagues. This led to encouraging the students to participate in the classroom.

3-13-3- One of the characteristics of the online survey communities is respecting the students' thinking and their learning abilities and encouraging them regardless of the rationality or illogicality of these ideas, as the students are made to possess

3-13-4- Motivation for positive learning, as well as helping students to divergent thinking to reach the planned level of learning and knowledge increase.

The researcher believes that the results of the research came in agreement with what the educational literature calls for in making the student active and effective in the educational process because the successful educational process is the one that begins with the student and ends with him, despite the difference in the environment.

4- Conclusions:

In light of the research results, the following conclusions were reached:

4-1- Teaching middle school students according to online survey communities positively impacted their academic achievement.

4-2- Teaching middle school students, according to online survey communities, had a positive impact on raising thinking skills through searching for scientific information.

4-3- Teaching first-grade female students according to online survey communities positively impacted the student's love for scientific material. It opened up new horizons of teaching methods that make the student enjoy receiving information after providing an interactive environment that relies on the pleasure of learning and research.

4-4- The possibility of teaching according to online survey communities in our schools.

5- Recommendations:

In light of the findings of this research, the researcher recommends the following:

5-1- Including in the curricula of teaching methods in colleges of education and colleges of basic education modern strategies in teaching, including online survey communities.

5-2- Enriching science books with activities that help students acquire information, creative skills, and communication skills in the school stages in general and the intermediate stages in particular.

5-3- Holding training courses for science teachers to identify the types, methods, and strategies of active learning, as well as training them on communication patterns in general and communication skills in particular.

5-4- The need to use survey communities via the Internet in teaching science to first-grade intermediate students due to its effectiveness in raising their achievement and communication skills.

5-5- Familiarizing teachers with communication skills so that they can train their students on them by preparing a teacher's guide dealing with how to increase communication skills in the field of teaching and making sure that it is practised in front of students so that it has a positive impact on their way of thinking.

5-6- Holding training courses for the educational cadres of male and female science teachers to enrich their knowledge with modern teaching methods, including the online survey, which enables the student to be a questioner, responder, interactor, and explorer.

5-7- Providing internet systems in laboratories inside schools and introducing teaching methods related to the online survey.

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