European Journal of Humanities and Educational Advancements (EJHEA)
Available Online at: https://www.scholarzest.com
Vol. 5 No.02, February 2024
ISSN: 2660-5589

BIOLOGY TEACHERS IN THE MIDDLE SCHOOL TEACHING SKILLS PRACTICE

Assistant.Prof. samaa Ibrahim Abdullah
Smaa.ebraheem@uomustansiriyah.edu.iq
Al-Mustansiriya University - Faculty of Basic Education –Department of Science

Article history:

Received: December 8th 2023
Accepted: January 7th 2024
Published: February 10th 2024

Abstract:

The current research aims to observe the extent to which biology teachers in the middle school practice some teaching skills. The research community consisted of (127) intermediate and secondary schools by (30) schools as a research sample, which constitutes (43%) of the total schools of the research community. The number of middle schools reached (21) schools and (9) secondary schools. For the purpose of verifying the validity of the skills included in the observation form for application in measuring the performance of biology teachers for the middle school and the validity of its formulation, it was presented to a group of arbitrators and specialists to find honesty and verify reliability, and thus the tool became valid for field application.

The current research aims to observe the extent to which biology teachers in the middle school practice some teaching skills. The research community consisted of (127) intermediate and secondary schools by (30) schools as a research sample, which constitutes (43%) of the total schools of the research community. The number of middle schools reached (21) schools and (9) secondary schools. For the purpose of verifying the validity of the skills included in the observation form for application in measuring the performance of biology teachers for the middle school and the validity of its formulation, it was presented to a group of arbitrators and specialists to find honesty and verify reliability, and thus the tool became valid for field application.

Keywords:

RESEARCH PROBLEM:

The process of teaching, learning, and human communication has two main poles: the teacher and the student. It aims to achieve specific outcomes represented in desirable changes in student behavior at the end of the process. Achieving these outcomes is the responsibility of both the teacher and the student. Under the modern educational system, which includes all elements of development, including the teacher, he has become involved in all stages of the educational process, so he must have a set of capabilities and skills that enable him to play the role assigned to him.

Some studies such as (Ahmed ,1996) and (Hassan,2010) have indicated the weakness of teaching skills among biology teachers. The researcher also noted through her modest experience in the field of teaching that there are a number of reasons that may affect the lack of teachers' practice of teaching skills, which affects the achievement of their students, including:

1- Weakness in the experience of some students due to numeracy programs, especially since quite a few of them are graduates of rapid courses and institutes.
2- There are some lessons with a sharp voice or the exits of letters are not clear to him, and this makes him laugh in the classroom .
3- The teacher does not have competence in communication skills, whether verbal, and we often find an excellent teacher in his scientific subject, but he does not have the ability to confront students.
4- Many of the two lessons are not familiar with their message and find it difficult to prepare and design them in a way that attracts the attention of the beneficiary (the student) .
5- The tendency of teachers to be limited to theoretical teaching to complete the curriculum vocabulary that is characterized by its abundance and inappropriate with the time allocated throughout the school year.
6- Lack of weekly teaching hours allocated to teaching biology, which pushes the student to complete the curriculum and does not have enough time to practice activities and experiences .
7- Pain often does not practice the lesson of teaching the subject in which he specialized when enrolled in schools so that he cannot perform a course correctly and creativity in his field of specialization because of the lack of

teaching a particular subject without others or the need to teach a class without others so that the pain of studying gives up the subject in which he studied and specialized for many years.

In light of the above, the researcher considers it necessary to study the extent to which biology teachers use skills during teaching by formulating the following question

What is the extent to which middle school biology teachers practice some teaching skills?

THE SIGNIFICANCE OF RESEARCH AND THE NEED FOR IT

The current era is the era of rapid developments and amazing innovations that accompanied the growth of scientific knowledge and its technological applications. States seek to march these developments with all their potential and energy to develop their societies on the basis of solid scientific knowledge. (Al-Saadi , 1999 :21)

Because the changes in the world today are no longer limited to a specific area of life, their effects have been prominent in the field of education in terms of its objectives, curriculum and means, and they have become aimed at raising the motivation of students and facilitating their understanding by designing the educational situation, providing material and psychological conditions, making a set of decisions and activities and organizing them in a way that helpsthem to interact actively with the elements of the educational environment and acquire the experience, knowledge, skills, attitudes and values that students need and fit under the supervision of the teacher in order to achieve the desired objectives. (Mari andMuhammad, 2002 : 43)

Biology has also developed like other sciences. It is concerned with the study of living organisms, as these organisms continue to survive thanks to consumption methods and the possibility of benefiting from them and converting them into energy. Biochemistry studies all chemical processes that are closely related to living organisms. Cell biology is also concerned with studying everything related to the cell as a building unit, in addition to evolutionary biology, which is concerned with the study of biological processes that helped to diversify life and other branches such as molecular biology as well as botany. (Sedky, 2021: 96)

One of the teaching requirements for the content of the subject of biology is to emphasize the integration between the theoretical and practical aspects, that is, the dependence of education on laboratory experiments conducted by the student or the student or both . To make learning based on sound understanding, however, teachers' lack of knowledge of its significance has led to its almost total neglect. In addition to the lack of sufficient equipment to conduct experiments and the lack of private laboratory rooms. (Al-Saadi , 1999 :54)

Teaching methods and methods must be directed mainly towards the achievement of educational objectives as directed to the student and the teacher and must be varied to suit the educational situation as well as the needs of students and their capabilities and abilities, including individual differences and must also be followed in the teaching methods used and methods of positive interaction between the student and the teacher and the educational material and the surrounding learner environment. At the same time, it is necessary that logic is the basis when using teaching methods that make it easier for students to move from the known to the unknown and easy to difficult and accompanied by the use of multiple and appropriate educational means are not learned without them.Habiba ,1995: 86)

It is difficult to suggest a method to achieve all the desired objectives and objectives of any subject. One method may be effective and successful in a particular educational situation, but it is ineffective in another . The capabilities of two lessons also differ in the implementation of this or that method , and students differ from each other in the methods of perception, remembering, imagining , and thinking, and this is reflected in the way they prefer to learn, so there are several ways, methods, and means that the lesson can choose and use to help students reach educational outcomes (Al-Fatlawi ,2009: 126)

Therefore, the teacher must have teaching skills. He enjoys wide freedom to create and manage things. He is the manager of the learning project and builds the basic elements in it, such as setting objectives, choosing content, planning attitudes, drawing strategies, forming the appropriate environment that enables students to learn and acquire skills , achieving cognitive and emotional objectives, and forming the desired trends by society. He deals with humans, who are the most complex and diverse creatures. This means that there are great individual differences in the individual himself and compared to others. Hence, the role of the student in confronting the differences and his own abilities to confront and solve classroom problems and teach students about objectivity in thinking and scientific research. The delegate studied, designed, evaluated and developed in working with students as individuals and groups and issuing various decisions, which are in designing educational attitudes, responding to students' needs, choosing the appropriate activities and strengthening the task. It is a model and mediator in the educational process. (Trick , 1999: 90)

From the above, the significance of the current research in

1-Providing a database for the school and educational administration that may help those in charge of training programs for two in-service lessons to enable biology teachers to have effective teaching skills and practice them in the classroom.

2-Providing feedback to biology teachers on the reality of their teaching performance, revealing its strengths and weaknesses, and motivating them to possess effective teaching standards.

RESEARCH OBJECTIVES

The current research aimed to reveal the extent to which middle school biology teachers practice some teaching skills.

SEARCH LIMITATIONS

Current research is limited to: -

1- Biology teachers for middle and secondary schools in the Directorate of Education Baghdad / Rusafa II .
2- Educational skills in terms of (diversity of teaching methods and methods, use of teaching aids, teacher management of the classroom , interest in educational activities to develop students' tendencies and trends)

IDENTIFYING TERMS

Teaching Skills

- Defineit (Zeitoun , 1993) as "the ability that a biology lesson needs to enable it to do its work efficiently, effectively, competently and at a certain level of performance" (Al-Zeitoun , 1993:226)
- Defined by (Hila, 1999) as "a set of consistent, biased patterns of behavior

It can be identified in which the pain of a lesson ensures learning through claim, guidance and direction when the pain of an investigation lesson is practiced. " (Al-Hayla, 1999:96)

CHAPTER 2
THEORETICAL BACKGROUND
Teaching Skills

It is the set of teaching behaviors that the student demonstrates in his educational activity with the aim of achieving certain objectives. These behaviors appear through the teaching practices of the student in the form of emotional, motor or verbal responses characterized by the elements of accuracy and speed in performance and adaptation to the conditions of the educational situation. These skills grow through training and experience. Then we say that teaching does not mean merely transferring information from the student to the student, but mainly aims to modify behavior. It must become real learning. The trend today to understand the teaching process requires the need for the student to be able to master the basic teaching skills that qualify him to provide a good social and emotional climate that leads to the achievement of the best educational return.

Teaching Skills Characteristics

Teaching skill is a form of effective teaching, which seeks to achieve certain objectives. It comes out of the lesson in the form of behavior associated with mental, verbal, motor, or emotional responses, and it is accurately adapted to the conditions of the teaching situation. Teaching skills have many characteristics, most notably:

1-Generality: This is due to the fact that the function of the lesson is very similar at different stages of study and in different subjects, but sometimes the change is in the nature of the behavior, which takes into account the age group and the nature of the educational content.

2- Change: It is possible that teaching curricula will change, with the aim of developing, building, and often linked to the conditions of society, its philosophy, and the nature of its students, and this calls for the constant pursuit of new teaching skills.

3- Interaction: The nature of teaching behavior is complex and complex, so that it is difficult to separate the patterns of teaching behavior. Therefore, it is also difficult to separate skills from each other.

4-Difference in the method of performance: There is no doubt that there are behavioral patterns commonly used in the teachers in the case of performing a particular skill, but this does not prevent differences between one lesson and another, and this is related to the personal behavior of each of them, and the method of applying the skill is influential.

5-Learningability: It may be before or during the service, and the acquisition of the skill here is subject to factors, including experience, motivation, implementation, and practice. (Zaki ,1979 :73)

Types of Teaching Skills

The acquisition of skills requires practice and training after possessing prior information about them, in addition to a certain mechanism that confirms the skill within behaviors, in order to confirm it and not forget it. The types of these skills are:

1- Cognitive skills: These are those that need certain mental performance, and are used to face problems or situations that need solutions.
2- Motor skills: These include motor performance, such as role-playing, writing, and activities that need movement.
3- Social skills: related to the emotional nature of each lesson. (Ibrahim , 1985: 113)

Highlights of Teaching Skills

There are many skills, which play a major role in the teaching process, but the most important of these skills are:

1-Planning: It is a scientific method through which practical measures are taken, in order to achieve future objectives.

2-Addressing students' answers: Do not ignore them, but comment on them before moving on to another question or student.

3- Diversifying the stimuli: These are the things that the lesson does in order to attract the attention of the student s during the lesson.
4- Stimulating the motivation of students by creating a desire for them to learn.
5- Preparing for the lesson: This is what the student does , with the aim of preparing the student for the new lesson.
6-Reinforcement, including providing rewards to students for a certain desired behavior.
7- Asking verbal questions, the skill of formulating them, and directing them.
8-The skill of summarizing and ending the lesson in an appropriate method.
9-The skill of managing the classroom. (Bin Khalid , 2012: 45)

Strategies to stimulate demand motivation for learning

Diversification with stimuli –
Diversification in the teaching strategy –
Linking topics to the reality of students' lives. –
Participation of students in planning their educational work. -
Provide the applicant with the results of their work as soon as they are completed. -
Prepare, prepare and plan lessons appropriately. –
Feeling the feelings of the students and their participation in solving their problems. –
Raising questions that require thinking while enhancing the answers of the student. –
Linking the objectives of the lesson to the mental, precious and social needs of the student . –
Exploiting the basic needs of the student and helping him to achieve himself. (Trick , 2014: 201) -

Previous studies

1-Study (Tams , 1990) :

The study was conducted in Iraq and aimed to evaluate the teaching practices of middle school teachers. The researcher selected a random stratified sample from a community where (50%) of biology teachers and the size of the basic sample was (55) teachers .

For the purpose of investigating teaching practices, the researcher used the observation tool and relied on multiple sources to collect their items , including watching actual lessons by some teachers of biology, and reviewing the form for educational supervision in addition to reviewing previous studies. In the light of these sources, (31) items were reached representing teaching practices for teachers of chemistry for the third intermediate grade.

The observation form included (5) areas: -
1- Personal and Scientific Characteristics (7) Items
2- Preparing and planning the lesson (10) items
3-Presentation of the subject (10) items
4- Educational aids (6) items
5- Calendar (3) items

The validity and reliability of the observation form was found, and then he began to apply the tool himself in order to ensure the consistency of the evaluation on a four-step Likert scale. The researcher used the relative weight to arrange teaching practices and equate the Pearson correlation coefficient to find the reliability of the observation tool and the choice of one-way correlation coefficients and analysis of variation. He also used the computer. The research results showed that the field of evaluation ranked last . In order to verify the differences in teaching practices according to the research variables, it was found that there are no statistically significant differences between teachers who are outside and inside the governorate center except in three . (Tams , 1990:3)

2-Study (Ahmed , 1996)

The study was conducted in Iraq and aimed to study the extent to which female students of Al-Qaid College of Education for Girls were able to acquire the scientific skills necessary to teach biology at the secondary level. The study was limited to female students of the fourth grade/ Department of Life Sciences for the academic year 1995-1996 and the skills included in the scientific curriculum of the Department of Life Sciences, which are related to teaching the biology curriculum at the secondary level. (30) female students were selected by the simple random method as a sample for research . To achieve the objective of the research, the researcher prepared an observation form following the automated procedures: -
1-Survey biology books at the secondary level to determine the skills included in these books
2-Scanning the vocabulary of the scientific method in the Department of Life Sciences/Al-Qaid College of Education for Girls to determine the scientific skills that must be acquired for the students of the department .
3-Analyzing each of the (51) skills adopted in the study, or the purpose of each of them, on (6) arbitrators .
4-Determining the degree of mastery of skills (75%)
The researcher used the Scott equation to find the reliability of the form and used the weighted average in his study as statistical means. The study revealed the low level of students in reaching an acceptable degree of mastery of scientific skills, as well as the weakness of theoretical information related to the practical aspect . (Ahmed , 1996:5)

3-Study (Al-Saadi , 1996) :

The study was conducted in Iraq and aimed to :

1-Building an educational program to train the student -he studied some of the teaching skills necessary to teach biology at the intermediate level.

2- Training the student - did notstudy using the teaching educational program asa result of professional competencies

The researcher used the systems analysis approach in designing the proposed teaching program in the theoretical and practical part according to the teaching needs of the student - who studied in the Faculty of Education, which included three main processes (analysis , composition , and evaluation) and a number of processes or sub-stages .

The teaching program was designed according to the theoretical scientific foundations on which the theories of learning and learning came, a number of modern scientific approaches and trends. The researcher used the experimental approach to apply her designed program to a group of 23 female students (experimental group). The researcher also prepared a teaching program according to the traditional method that was applied to a sample of 23 female students (control group) for the same stage of study. The application of the experiment took a full five months (1994-1995) by (40) units of time divided into (20) training lessons.

The researcher also prepared a form to submit professional competencies as a tool to measure one of the outputs of the training system of the proposed program. The application form included (50) competencies distributed in four main competencies (educational events, teaching planning, implementation , and presentation) .

The researcher used a number of statistical means for the purpose of achieving the objectives of the study. The results of the research resulted in the effectiveness of the proposed program in the training , as the experimental group that trained according to its method outperformed the control group that trained in the traditional program method. (Al-Saadi , 1996: 4)

Foreign Studies:

Study (Saunders , 2001)

The study was conducted in the USA and aimed to identify the necessary teaching skills and competencies for a high school science teacher.

The items of the study tool, which is the questionnaire, were confirmed by relying on the personal experiences of the researchers participating in the study, surveying the opinions of teachers in the service, and reviewing the work journals in the laboratory . The list of competencies and skills consisted of (145) items divided into three sciences (General Biology, Natural Sciences and Earth and Space Science). The study sample included teachers whose teaching experience varies in teaching chemistry, biology, earth and space science and physics , who will work in middle and middle schools and pre-service teachers. Participants in the VNC Institute of Chemical Education were selected in the summer of 1967 for their responses, while pre-service teacher responses were from students of other film modalities at the University of Beraska, Lincoln, and North Colorado .

The list of competencies and skills consisted of (145) items distributed among the three sections (General Biology, Nature, and Earth and Space Science) .

The researchers used computational media and variation as statistical means, with average scores ranging from (2.86) maximum and (0.99) minimum . The study revealed the interest of pre-service teachers in knowing the risks of chemical and laboratory safety skills and competencies, and the rest of the skills and competencies took a sequence according to their significance . The study stressed the need to include teaching methods and educational techniques for these skills and competencies and develop them as they are vulnerable to continuous change.

(,pp.11 Saunders , 2001)

Indicators on previous studies

In light of what has been presented in previous studies, it is possible to refer to machine points: -

1- Some studies aimed to determine the teaching competencies necessary for secondary school teachers, such as a study (Ahmed , 1996) and a study (Saunder, 2001). The study (Tamans, 1990) aimed to evaluate the teaching practices of chemistry teachers in the middle school , while the study (Al-Saadi , 1996) aimed to build a training program for the student-teacher on the training skills necessary for science teachers for the primary stage.

2- This study was conducted at different stages of study, it dealt with the study of the middle school , while the study of (Ahmed , 1996) dealt with the undergraduate stage, while the study of (Al-Saadi , 1996) chose the institutes of teacher numbers, either the current study was conducted on the provision of teaching skills for the middle school .

3- The current study agreed with the study of (Tams, 1990) , (Ahmed , 1996) in using observation as a research tool, while (Saunder, 2001) dealt with the questionnaire .

4- The study of (Al-Saadi , 1996) dealt with the subject that identified skills for teaching science in the primary stage, while some of them dealt with chemistry as a study (Tams, 1990) and dealt with the study of

(Saunder , 2001) The teaching skills and competencies of the science teacher at the secondary level. The current research agreed with a study (Ahmed , 1996) that dealt with competencies for teaching biology .

5- Previous studies differed in the selection of the study sample.

CHAPTER 3
SEARCH PROCEDURES

Research Community: -

In order to identify the original community of the research schools, the researcher collected information and data for his research in cooperation with the Directorate of Educational Planning/Statistics Division in the Directorate General of Education in Baghdad /Rusafa II. The number of primary schools reached (127) schools, including (33) intermediate schools for boys, (37) intermediate schools for girls and(57) secondary schools.

Research Sample

By selecting the school sample using the random stratified sample method, the steps of selecting this type of sample are limited to several steps: -

1-Dividing the original research community into non-overlapping classes or small communities.

2- Determining the percentage of sample members from each layer in proportion to their total number.

3- Random selection of sample members for each layer . (Amira and Fathi,1989:80)

The researcher considered that the administrative division according to the location of the school achieves the first of these steps and to achieve the second step, which is to determine the percentage of sample members from each class and in proportion to their total number, the researcher adopted the method of proportional distribution level (Prepositinal Allocations). It selected (30) schools, which constitute (43%) of the total schools for the research community. In order to achieve the third step, the researcher selected the sample of schools in a random way from each class. The researcher selected all teachers who teach science to revive second-grade middle school students in the current research sample.

Research instrument

The researcher built a closed questionnaire that included (66) teaching skills and (4) scores were given for the alternative (strongly agree) and (3) scores for the alternative (agree) , two scores for the alternative (uncertain) and one score for the alternative (disagree). The values of the average performance scores and the percentage weight were calculated in light of this division of scores .

The researcher relied on: -

1-Agroup of teachers of the second intermediate grade.

2-Supervisors specializing in biology in the Directorate of Education in Baghdad /Rusafa II.

3-The results of studies and research conducted in the field of current research.

Scientific Criteria for Observation Form

Validity

For the purpose of verifying the validity of the skills included in the observation form for application in measuring the performance of middle school biology teachers and the soundness of their formulation , I presented to a group of experts, specialists in science, methods of teaching them, measurement and evaluation, and teachers of the subject. After taking their observations and trading with them, the questionnaire obtained 90% agreement.

Exploratory Sample

The researcher applied the tool surveyed to (5) male and female teachers for the purpose of practicing its use, and then began to apply the tool itself by making two visits to each teacher and school. The individual plan books also noted that the research sample gave the researcher for each skill (4) levels of performance, which is a degree (4) as an alternative that he performs to a very large degree, a degree (3) that he performs to a medium degree, a degree (2) that he performs to a weak degree, and (1) as an alternative that he does not perform .

Reliability

Reliability means the extent of accuracy or consistency in the results of using the measurement from time to time (Muhammad , 1985:232) .

The researcher followed some procedures to find the reliability of the observation form, such as applying it to the performance of (10) lessons and teachers of biology for the second intermediate grade in two observations for each of them separated by a time difference of (21) days and for one class for each of them. Using the ^{K2} coefficient to obtain the reliability coefficient, it was found that it ranges between (0.9-3.2), which is less than the table value of ^{K2} of (6,000) at the significance level of (0.05) . (Tawfiq , 1983:191)

Application of the tool: -

1-The application of the observation tool began to include the consistency of observations 20/11/20 23 and the application ended on 15/12/20 23.

2-The researcher made two visits to each teacher and school and after reviewing the weekly lesson schedule to know the dates of the biology lessons and the official working hours of the school . The date of the actual visit was not set in advance with any of the teachers.
3-The observation was conducted in the classroom for a full session.

Statistical means: -

1- Percentage weight of skill ranking
Weight centigrade = average /maximum score * 100

2- K2 equation to calculate reliability
K2 = (T-M)2 / T
(Cohen and Mannion, 1990: 415-422)

CHAPTER FOUR.
PRESENTATION AND INTERPRETATION OF RESULTS
Findings

After completing the retrieval of the questionnaire forms, which have become (45) forms, and to achieve the objective of the research, which is to identify the impact of the practice of teachers and teachers of biology for teaching skills on the achievement of students, follow the following steps: -
1- The practical performance of the teaching skills included in the observation form was calculated according to the four alternatives 2-The skills were ranked according to the values of the average performance scores and the percentage weight descending for each of the areas of teaching skills in the observation form.
3-Adopting the average triple scale, which is (2) in calculating the average field of each skill and according to the number of its items , then adopting the average field as a criterion between the skills that perform and the real skills that perform .
3- Each skill that obtained an average performance score equal to the average of the field and more and a percentage weight (60%) and more skills performed and as in Table (3)

Table (3) Shows the mean of the tool and the percentage weight for each of the teaching skill areas only Sequence in the observation form

No.	Skills Area	Average No.s	Percentage for Numbers	Average number scores	percentage
1	Educational objectives	7,5	12	10,21	85,08
2	Planning	12-5	20	13,83	69,15
3	Presentation and implementation	20	32	16 December	38
4	Classroom Questions	15	24	19.24 %	80,16
5	Leadership and Orientation Classroom Behavior	7,5	12	11:26	93,83
6	Education activities,	15	24	12-21	50,87
7	Learning activities	7,5	12	3,24	27
8	Improvements in education	5	8	3,42	42/75
9	Responding to students' humanitarian needs	12-5	20	11:46	57.3
10	classroom management	10	16	12,66	79,12
11	Selection and preparation of teaching aids	7,5	12	4	33,33
12	COMMUNICATION	10	16	12,66	79,16
13	Conducting laboratory experiments	12-5	20	7,5	37,5
14	National and National Awareness	10	20	7,5	37,5
15	Assessment	12-5	20	10 4	52
	GPA			10, 11.	57:51

It is clear from the above table that the value of the average performance scores and the percentage weight of school performance reached (10.11 – 57.51)respectively, and this is that their performance in general is lower than the average compared to the adopted standard. It is noted from the previous table that the average performance of teachers in the field of leadership and behavior guidance skill has exceeded the adopted standard. The average performance and relative weight scores were (11.26)and(93.83), respectively. As for their performance in the rest of the other skill areas, it took the descending sequence of my machines and as in Table No. (4)

Table number (4) Shows average performance scores and percentile for each area of the observation form in descending order

No.	Skills Area	Average Performance Score	percentage

1	Leadership and Behavior Orientation	11:26	93,83
2	Educational objectives	10,21	85,08
3	Classroom Questions	19.24 %	80,16
4	classroom management	12,66	79,12
5	COMMUNICATION	12,66	79,16
6	Planning	13,83	69,15
7	Responding to students' humanitarian needs	11:46	57.3
8	Assessment	10 4	52
9	Education activities,	12-21	50,87
10	Improvements in education	3,42	42/75
11	Presentation and implementation	16 December	38
12	National and National Awareness	7,5	37,5
13	Selection and preparation of teaching aids	4	33,33
14	Learning activities	3,24	27
15	Conducting laboratory experiments	7,5	37,5

It is clear from Table (4) that the skills that performed above the adopted standard according to their fields reached (6) areas of form (40%). As for the skills that teachers performed poorly, that is, below the adopted standard, they reached (8) areas, that is, (60%) of the total number of teaching skill areas.

Interpret results

With regard to the research objective, (40%) of the fields have obtained an acceptable degree of verification, which are the first five fields that start in the field of (leadership and directing classroom behavior), as their percentage weight is (93.8) and end in the field of (planning), as their percentage weight is (69.15) .While the other nine fields obtained scores that are not at the required level of verification by adopting the standard adopted in this arithmetic mean, they start with the fields (responding to the human needs of students), as they gained a percentage weight (57,3). Based on these results, it can be said in general that the teaching of biology that takes place in middle schools is not as efficient as required because more than 50% of the components of teaching this subject and its activities are not achieved to the required degree. This may be due to the focus of the teachers on the estimated content and their lack of awareness of the significance of educational activities in achieving the desire of students for more effort and stimulating their motivation. The failure to use the appropriate educational means properly and appropriately and not to use them in order to preserve it or lack of availability in schools despite the possibility of providing all means from the local environment because it is linked to the reality and environment of the student . Teachers' interest in the theoretical aspect more than the scientific aspect as a result of limiting the general and standardized examinations to the theoretical aspect only. We also note that there are some areas such as the field of skill of national and national awareness that have obtained a low level of performance due to the reliance of biology teachers on their colleagues from two other disciplines.

As for the field of evaluation, it is below the required level, and perhaps one of the reasons is that evaluation is often limited to the cognitive field without the emotional and psychomotor fields .

This means that the teaching of the subject needs to raise the level of its performance and effectiveness and its role in the success of the whole teaching process. The poor performance of many of its components and activities and the complexity of teaching biology may be due to the weakness of the educational requirements and facilities for this subject and the weak incentives of teachers and those teaching this subject .

Recommendations

In light of the results of the research, the researcher gives the following recommendations: -

1-The need to pay attention to teaching biology in the second middle school by providing the supplies needed by biology teachers.

2-Revisiting the contents of the curriculum . Including the number of specialized study hours for the subject (theory and process) and work to observe the discoverer and variables in science and employ them in an educational manner .

3-The need to include biology teachers in in-service development courses to follow up on educational and scientific developments and in order to raise the level of adequacy of their teaching to their students .

REFERENCES

1. Ibrahim , Majd Aziz ,(1985): "Some of the teaching competencies practiced by the mathematics teacher in the educational situation from the point of view of students and teachers of the general secondary school, Journal of the Faculty of Education, Mansoura University, Issue (6) , Cairo , Egypt .

2. Ahmed , Haidar Maysar Hamdallah,(1996): "The extent to which female students of Al-Qaid College of Education for Girls at the University of Kufa have the scientific skills necessary to teach biology at the secondary level", University of Baghdad, College of Education , Ibn Al-Haytham (unpublished doctoral thesis) ,Baghdad , Iraq.
3. 3-Bin Khalid, Hassan Daher (2012): "The Art of Teaching" , 1st Edition , Jordan , Amman.
4. 4-Tams, Faraj Nissan Yasi,(1990): "Evaluation of Training Practices among Middle School Chemistry Teachers", University of Mosul , Faculty of Education (unpublished master thesis) , Iraq.
5. 5-Tawfiq , Abdul Jabbar, (1983): "Statistical Analysis of Educational, Psychological and Social Research Unparametric Methods", Kuwait Foundation, Kuwait.
6. Touq , Mohieddine and Abdul Rahman Adass,(1983): "Fundamentals of Educational Psychology, Malta Intercept Edition, John Wiley and Sons .
7. Hassan , Zikra Faleh ,(2010) : "Teaching Competencies Necessary for Secondary School Biology Teachers" ,Journal of Educational Studies, Issue 11 , July , Baghdad , Iraq.
8. Habiba, Majd Abdel Karim, (1995): "Studies in Thinking Styles" , Al-Nahda Arab Library, Tanta University, Egypt .
9. Al-Haila , Mohammed Mahmoud,(1999): "Educational Design Theory and Practice", Dar Al-Amal Publishing , Amman .
10. Al-Haila , Muhammad Mahmoud ,(2014): Classroom Teaching Skills, 4th Edition , Dar Al-Masirah , Jordan.
11. Zaki , Saad ,(1979): "Teaching Skills of Science Teachers in Middle and Middle Schools in the City of Baghdad , Al-Ustaz Magazine, Issue (3) .
12. Zaitoun , Ayesh Mahmoud : Methods of Teaching Science, Dar Al-Shorouk Publishing , 1st Edition , 1993 , Amman , Jordan .
13. Al-Saadi , Mohammed Al-Zobaie, (1999):The impact of teaching biology teachers on the achievement of their students, **(unpublished master's thesis)** ,Faculty of Education , University of Baghdad .
14. Sidqi, M.Ha Ali Fahmy,(2021): "The Basics of Genetics" , Egyptian Book House, Cairo , Egypt.
15. Iraq , Ministry of Education : General Teaching Methods for the Third Grade, Teacher Training Institutes, 7th Edition , Faraj Printing Office, Baghdad , 1993 .
16. Al-Saadi , Sahira Abbas Qanbar : Building the student-teacher teaching program on some teaching skills and its impact on his professional competencies, University of Baghdad , Faculty of Education Ibn Al-Haytham (unpublished doctoral thesis) , 1996 .
17. Amira , Ibrahim Bassiouni and Fathi Al-Deeb ,(1989): " Teaching Science and Scientific Education, 12th Edition, Dar Al-Maarif , Cairo, Egypt.
18. Al-Fatlawi ,Suhaila Mohsen (2009) :Introduction to Teaching ,1st Edition , Dar Al-Shorouk , Amman.
19. Cohen , Lewis and Lawrence Mainon, translated by Kawthar Hussein Kojak,(1990): Research Methods in Social and Educational Sciences, Dar Al-Arabiya for Publishing and Distribution , 1st Edition .
20. Mari , Tawfiq Ahmed and Muhammad Mahmoud Al-Haila,(2002): "Methods of Teaching the Public, Dar Al-Mayser for Publishing and Distribution , 1st Edition.
21. Mansour , Ahmed Hamed : Introduction to Educational Technology, 1993 , Egyptian Book House.
22. Mohammed , Saeed Khabarini, (1985): "Radiocentric Project for the Development of Teaching Biology in the Arab World , Arab Journal of Education , Volume (5) , Issue (1) .
23. Al-Bayati , Abdul-Jabbar Tawfiq and Zakariya Zaki Athanasios , Descriptive Statistics and Inference in Education and Psychology, Baghdad , Al-Mustansiriya University, 1977 .
24. Al-Anbaki , Abdul Razzaq Abdullah Zaidan : Evaluation of the performance of secondary school history teachers in the light of teaching skills and building programs for development , University of Baghdad , Faculty of Education Ibn Al-Rushd (unpublished doctoral thesis) , 1995 .
25. 15. Saunders , Geraled and etal , laboratory skilla and compiencilc secondary science teacher , WWW , NEA .org ,National Edu .Assoeiation , 2001 .