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A proposed training program for the applied students at mathematics department and its impact on their teaching performance

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Abstrac

The current research aims to study the effect of a proposed training program for the applied students and their impact on their teaching performance. The sample of 73 students of the fourth stage in the mathematics department at the Faculty of Education / Ibn al-Haytham / morning study were randomized to the two experimental groups (37) (36) students. In order to achieve the objectives of the research, a training program was prepared in which a number of activities and training were carried out over a period of 15 weeks at 3 hours per session. A note card was prepared for the teaching performance and by using a statistical test. Statistically among the research groups and for the benefit of the experimental group in teaching performance.

Un programa de capacitación propuesto para los estudiantes aplicados en el departamento de matemáticas y su impacto en su desempeño docente.

Resumen

La investigación actual tiene como objetivo estudiar el efecto de un programa de capacitación propuesto para los estudiantes aplicados y su impacto en su desempeño docente. La muestra de 73 estudiantes de la cuarta etapa en el departamento de matemáticas de la Facultad de Educación / Ibn al-Haytham / estudio de la mañana fueron asignados al azar a los dos grupos experimentales (37) (36) estudiantes. Con el fin de lograr los objetivos de la investigación, se preparó un programa de capacitación en el que se llevaron a cabo una serie de actividades y capacitación durante un período de 15 semanas a 3 horas por sesión. Se preparó una tarjeta de notas para el desempeño docente y mediante el uso de una prueba estadística. Estadísticamente entre los grupos de investigación y en beneficio del grupo experimental en el desempeño docente

Introduction :

The changes in the educational process on the ground, including the high percentage of children at risk of dropping out of age from 14 to 14 years of age, and the increase in the number of students out of primary school (8.3%) and middle school (25.9%) in 2013 and low The level of achievement and the high repetition rates in all stages (17.8%) in the primary stage and (31.3%) for the intermediate stage for the academic year 2013-2014) and the overcrowding of the students, the school may be one of the main reasons for these changes in curricula and educational cadres in addition to the reasons Other economic, social and political, this is called the specialists of education and The Ministry of Education needs a teacher with the ability to develop, innovate and innovate and is able to deal with these variables efficiently and flexibly. Some studies conducted by the Ministry of Education have shown that there is weakness in the preparation of the teacher and in his training before and during the service and that the teachers are few To take note of developments and developments in the field of teaching methods (Al-Alwan, 2004: 26). Because the goal of the faculties of education in all specialties is to prepare the teacher of the general education stages, so it is necessary to change or modify the programs of preparation of this teacher, which starts with him from entering the college in the first stage to the fourth stage and in particular the program of practical education which integrates the theoretical side of the practical aspect and call attention This program and its enrichment to give more effective and efficient outputs has been conducted several studies in this area, including the study (Janabi, 2011), which proved the effectiveness of training students - Applicants are students in the fourth stage on the strategies

of knowledge beyond their knowledge in sports (Saadi, 2008), which proved the impact of a training program on the students - applied in the communication skills of the athlete and their students and study (Sidawi, 2013), whose conclusions confirm the existence of a clear impact For the training program on the athletic strength of the students / Applicants and the existence of a clear impact of the training program on the athletic strength of the students of the second medium Despite the interest in pre-service teacher training, the interest in training them in theory is more than interest in their training in practice The strategy of teacher training and professional development in Iraq identified this problem when I found that the practical training in the faculties of education is inadequate and ineffective and identified the reasons for the students, the school and the legislative systems. It gave suggestions to improve this reality by raising the level of performance of the student - teacher academically and educationally and professionally through the development of numbers programs before Which requires a real partnership between the Ministries of Education and the faculties of education in Iraqi universities where they develop programs for the preparation of teachers, including practical training (UNESCO, 2013: 30). In the same regard, the new standards issued by the Council The NCTM teachers need to focus on the practical aspect of number programs and to explore the views of some of the students - the students, the teachers and the mathematics supervisors who emphasized that the practical reality necessitates the application of more realistic programs and flexibility to accommodate the change in the attitudes and motivation of the achievement and teaching performance of the students. Minimizing the negative effects of these new variables. Second, that the training programs for pre-service teachers include various axes related to the numbers and composition of this student - applied academically and professionally and educationally, culturally and personally

Research problem :

For the reasons explained in the introduction to the research, the researcher suggested that as she taught practical education for students in the fourth stage in the mathematics department, she would train her students in a different way that she believes would be useful in the practical aspect of the theoretical aspect. - Ibn al-Haytham believes that this program will be influential in the performance of the student - applied teaching and his tendency to teach mathematics as a teacher in secondary schools it may be given to strategies of diversification of teaching and differential education and cooperative learning strategies of utmost importance pours It is necessary to train the student applied to them as he might benefit them to reduce the size of the negative effects of overcrowding in classrooms with students and therefore higher levels of achievement and

particularly in mathematics.

Hence, we can define the problem of research as follows:

What is the effect of a proposed training program for students of the mathematics department who are applied in their teaching performance?

Research importance:

It is possible to say that the teacher in his character, style and style is the most important of these elements and can affect them where it has been proven that the success of the education process is due to the fact that 60% of the teacher and the rest 40% is due to other elements (Afana and others, 2012: 340) and because the education of the information age requires special preparation for the teacher who has to realize that the generation that will work on teaching and teaching is a generation different from the generation to which he belongs, it has become necessary to develop and develop his knowledge and potential and to identify the types of thinking and development programs and acquire Distinguished Management Skills The preparation and composition of this teacher is not as easy or as simple as the traditional programs used. The most important role of the future teacher can be summarized as a plan of the curriculum as a result of decentralized decision in education and as a specialist in technology for multiple The means by which the student can obtain information and as an organizer of the activity because the direction of the schools of the current century is to reduce the size of the subjects and to provide the opportunity for educational activities and as a specialist in teaching methods, where he must pay attention to methods Based on self-learning cooperative and creative and others that are different from the traditional methods of teaching, and his role as a guide and mentor and has set a career as an entrepreneur and Kmqqom competencies and administrative and mentor myself (and others Afaneh 2012: 362-373). The purpose of this course is to prepare a teacher for the secondary school. In order to prepare this teacher, the student is offered a four-year course with theoretical courses in the subjects of specialization. The aim of this course is to prepare a specialized academic discipline in order to create an in-depth knowledge of the field of specialization. The specialization in mathematics is the fields of mathematical and numerical analysis, algebraic and geometric studies, probability, statistics and operations research, which are supposed to constitute 65% and others in basic educational materials, which are prepared in a professional educational form, which is assumed to constitute 15% Teachers and their professional development in Iraq - including the curriculum of methods of teaching mathematics, measurement, evaluation and practical education program. Since the numbers will be limited if these courses are presented in theoretical terms, it is accompanied by the training of students practical training in accordance with the program called the program of practical education awareness of the decision-makers value of practical training, which will complete the aspects of the

preparation of this teacher. (2009, p. 429), which aims to develop the knowledge and skills of the student teacher (Ebeid, 2009) and define it as (concerned with the process of numbers before service and during the growth of knowledge and abilities and improve the skills of educational performance in accordance with modern developments in the field of education) in a Teaching in the case of training is linked to the professional needs of trainees so the efficiency of teaching performance comes through the integration of the practical and theoretical aspects in one interactive dress is training and this is achieved through practical education (Barton, R. & Hyden, T., 2012, pp 257-272) .

Al-Tahan, 2013, pointed out that teaching performance is measured in three aspects:

1. The cognitive aspect is measured in writing through tests and questionnaires that measure information and direct experiences (concepts, generalizations, skills, issues).
2. The performance aspect is measured by the student's skills - applied by observation card.
3. The output of the performance and estimated the final output of the work through its health, accuracy and speed of performance.

The observation of performance is one of the most important methods of evaluation, as the observation shows the extent of improvement and progress in the acquisition of skills in addition to a questionnaire or test to measure the cognitive side (Altahan, 2013: 558)

The importance of practical education can be summed up by the following points:

1. The theoretical and practical aspects are linked.
2. Help students to acquire the necessary competencies for the stage teacher.
3. Motivate students - applied to reading and thinking during the program.
4. The student has the opportunity to apply teaching skills.
5. Increase the student's sense of self-confidence in facing educational situations.
6. Allow the student-applied direct contact with elements of the educational system.
7. Allow the student to gain experience in the educational administration through his presence in schools as a teacher

(Ghanem and Khalid Mohammed, 2010,

pp. 92-94)

Recent concepts have been the concept of inclusive education, which means: equal opportunities for all children, including disabled, gifted, disabled or disabled, street children, poor and orphan children, working children, disadvantaged children and girls in rural areas, By attending regular schools that should provide child-centered education and be able to meet their needs in order to achie

ve meaningful education and achieve the goal of education for all Family Dictionary Of Education And Terms (1-866-256-2597): page 39) The inclusion of the classroom in the individual differences imposed by their different capacities, aptitudes, and physical and mental characteristics necessitates the use of new approaches based on education in small groups or education based on students' learning methods, differential education or diversification of teaching. As a result, the use of these strategies will become necessary.

By teaching differentiated or diversifying teaching, it means teaching a group of students who are different in their preparations, attitudes, abilities, type of thinking, learning and even language, and in their desire to study the scientific materials and teaching methods they wish to learn in one semester, and then respond to this in their teaching process. The curriculum and presentation methods of students' characteristics and characteristics depend on a variety of strategies that enable the teacher to respond to the needs of his students (Kojak et al., 2008: p. 25).

And the diversification of teaching requires that the diversity of the teacher in his methods and teaching methods to accommodate all the differences between students class and to deal flexibly with the activities of classroom imposed in the content of the curriculum and also deals flexibly with the content of the curriculum as a whole through pressure or open according to the need of the student and the type of differences between them, The diversity of teaching and its strategies allows the student to evaluate himself and his performance and gives the opportunity to participate (Brown, Diana Lawrene: 2004,36) Planning, implementation and evaluation processes

From the above, it is clear that the importance of differentiated education or diversification of teaching is based on the idea that education for all and for all levels as it seems important in considering the different learning patterns of students and working to take into account their tendencies and attitudes.

Differentiated education or diversity of teaching may take different forms. It may be taught according to the theory of multiple intelligences or teaching according to the patterns of learners as models of teaching according to the methods of learning learners or cooperative learning. All of these require working in small groups, the work may differ according to the different steps of each strategy. In cooperative learning strategies such as the strategy of JIXO, the mobile delegate, individual competitions, etc., or differentiated learning strategies such as the strategy of content pressure or the strategy of thought-co-co-operation and other strategies which, in general, Students' science is in the form of small groups that may consist of 5 or 6 students who are different or equal in achievement and the scientific level requires them to solve positions and each according to their steps.

(Tomlinson, 2000, 27), Watts- Taffe, 2012, 304-305)

Training on differentiated learning strategies as part of the program proposed in this research was not the only requirement for training so it was not necessary to refer to it in the title of the paper.

Among the points mentioned above can be summed up the importance of this research in the following:

- The importance of faculties of education and all specialties which provide the Ministry of Education with specialized teachers for the stages of general education.
- The importance of preparation of mathematics teacher before and after service.
- The importance of the practical education program in the preparation of mathematics teacher for the secondary stage.
- The importance of teamwork, working with small groups and training students to attend workshops.
- The importance of practical application of the skills included in the four fields of teaching performance (content of scientific material and planning, implementation and evaluation).
- This research provides a pre-service and in-service teacher training program.
- This research provides a form to measure the performance of the student applied in four areas.

Research Questions and Hypotheses:

The current research examines the following questions:

- Does the proposed training program have an impact on the teaching performance of the students in the mathematics departments?

The above questions were converted into statistical hypotheses to be presented later.

search limits :

The following research is limited to:

Students of the fourth stage (students - Applied) in the Department of Mathematics Faculty of Education for pure science Ibn al-Haytham Morning study for the academic year (2014-2015)

Definitions and Terms:

Program: GOOD, 1973 was defined as a set of organized and planned activities aimed at developing trainees' knowledge and enabling them to update their information to improve their competence and improve their performance (GOOD, 1973, 297.)

In 1988, UNESCO defined it as a "systematic and planned activity for trainees to develop their skills and knowledge" (UNESCO Regional, 1988, 3).

It is clear from the two definitions above that the definition did not change during the ten years since they agreed:

- Organized and planned activities.
- The objective of these activities is to develop the level of trainees.

training program :

Arafa Collins and Nancy 2008 as a set of detailed instructions to regulate the procedures in the professional training material and guidance includes a number of axes including description of material and physical conditions and the identification of the coach and its specifications (Collins and Nancy, 2008: 600)

Al-Siddawi defines it as "a planned activity in an integrated manner of knowledge, skills, processes and experiences with appropriate methods and means to achieve specific educational objectives" (Al-Sidawi, 2012, 9)

Course definition of the proposed training program: A set of activities and workshops proposed to prepare the fourth stage student in the mathematics department as a student - applied in secondary schools with the specialization of mathematics and according to the hours specified for the practical education program at the Faculty of Education for Pure Sciences - Ibn al-Haytham.

Teaching performance:

Al-Janabi and Bushra defined it as "the daily performance of the teacher in all his movements within the classroom to achieve interaction with his student to acquire knowledge and skills and to enable them to reach the desired goals of education." (Janabi and Bushra: 2011, 10)

From the definition above it is clear that the goal of teaching performance is to achieve positive interaction between teacher and student is done daily, through which the teacher displays the content of the scientific material after it has been planned in advance. Hence, the researcher considers that the content of the scientific material is an important field that the teacher should be able to add to the three performance fields that have been studied in previous researches and studies (planning, implementation and evaluation). Therefore, the definition of the teaching performance will be:

Is the process of measuring and determining the student's performance - applied in the educational situation in the classroom and measured through a note form prepared for this purpose in four districts (content of the scientific material, planning, implementation of the lesson, assessment)

Definition of students - procedural requirements:

The students of the fourth stage Mathematics Department in the Faculty of Education for Pure Sciences - Ibn al-Haytham subject to the decision of practical education during the first and second semesters, which aims to prepare them to be teachers of mathematics in secondary school and practice actual

teaching in secondary schools in the individual application stage under the supervision and guidance of professors specializing in teaching methods Mathematics.

Search procedures :

The research approach: Because the research studies the effect of independent variable, the proposed program on the variables followed by the appropriate approach is the semi-experimental method of the experimental groups and the post-test control and as shown below

Depend variable	In depend variable	Equivalence between gropes	Groups
Teaching performance.	Proposed training program		Experimental
	Normal		Control

Schema (1) Design Research

Research Society: Fourth Stage Students (Students - Applicants) Morning and Evening Studies in Mathematics Departments at the College of Education for Pure Sciences - Ibn Al Haytham for the academic year 2014-2015 as shown in Table (1)

Groups	Number of students	Number of samples members	female	male
Experimental	43	37	22	15
Control	43	36	24	12
Σ	86	73	46	27

Table (1) Research Community

Study	n.of students
Morning	86
Evening	70
Σ	156
Study	n.of students
Morning	86
Evening	70
Σ	156

The students of the fourth stage (students - applied) Morning study in the Department of Mathematics in the Faculty of Education for Pure Sciences - Ibn al-Haytham for the academic year (2014-2015) After excluding the students who completed the sample in the final form as in Table (2)

Control measures: The following variables were determined which may affect the results of the research. The difference was statistically significant by using the independent test for two independent samples at the significance level of 0.05 and the degree of freedom (71):

1. Degree of curriculum material and methods of teaching mathematics for the third stage and was obtained by obtaining the grades of the sample students from the Department of Mathematics.

2. A test of the previous information includes paragraphs to measure the skills of analysis of mathematical knowledge and the development of special goals and behavioral purposes and the writing of the items of a daily plan containing strategies and methods of teaching a mathematical subject chosen from the book of mathematics first grade intermediate.

To ensure the external integrity of the pilot design was the following:

1. The two groups were taught by the researcher herself.

2. The duration of the experiment was the same for the two groups, which took 15 weeks in the first semester and 3 hours per group per week. In the individual application stage in schools (7) weeks from (1-3-2015 to 15/4-2015)

3. Followed by the student before application and during the application was follow-up (electronically) and after the application continued follow-up until the end of the second semester.

Program building: The following steps were taken:

First: Planning

1. Analysis step: The aim is to identify the basic needs of the program and its basic pathways and was carried out in two stages:

The first is the analysis of teaching and training needs:

Through the experience of the researcher in the field of preparing the students applied and during their knowledge of the work of teachers in the secondary school and on the training programs of some of the Iraqi, Arab and foreign studies in this area reached the most important training needs needed by the student -

The need to thoroughly examine the content of secondary school textbooks and analyze it to its sub-components.

The need for training in the formulation of educational objectives.

The need for training in the use of modern strategies suitable for high school grades characterized by the existence of large individual differences between

students because of the presence of students with difficulties in learning mathematics and at the same time the presence of outstanding students.

The need for training in basic teaching skills and sports communication skills. The need for training in planning and writing the daily plan in an effective manner.

The need for training in the preparation of collection tests and methods of diagnosis and evaluation of students' levels.

The second is the analysis of the characteristics of students - Applicants:

Before the process of implementation of the program the process of determining the characteristics of the target group who are the students of the fourth stage in the Department of Mathematics Faculty of Pure Sciences - Ibn al-Haytham and their characteristics:

They are in an almost age group.

Subject to a standardized teaching vocabulary of Curriculum and Methods of Teaching in the third stage and its purpose is to provide the student with knowledge and information about some of the curriculum and related types and sub-components, and is covered in theory.

All of them had taken a three-year course in mathematics and continued their studies during the fourth year.

All of them were subjected to educational courses in the subject of psychology and the foundations of education and educational management and measurement and evaluation.

Second: Design

It included three phases:

The first stage is to set general goals for the program and objectives for each workshop.

The second stage is the identification of the training program material and included theoretical material related to the following:

- Definition of the student - applied to the program and its objectives and steps to implement it.
- The definition of the student - applied to the types of mathematical knowledge.
- Student definition - applied in the teaching methods of mathematics and modern teaching strategies based on the use of small groups and strategies for diversification of teaching.
- The definition of the student - applied to the necessary teaching skills and sports communication skills.
- Student definition - applied in the sense of planning and types of plans required to prepare.

The third stage is preparing the working papers for each workshop.

Thirdly: Implementation was carried out in three stages:

The first was the identification of educational activities. The activities in the program differed, and because the scientific material of the program required training and application by the student. Therefore, the activities of education in general were carried out in small collaborative groups and individual education activities.

The second is the preparation of teaching plans: The preparation of teaching plans for each of the workshops that have been implemented

The third is the implementation of the program and this is as follows:

First Semester:

- Distribution of the program to students - Applicants.
- Group formation.
- Define the mechanism of work and evaluation.
- Implementation of workshops.
- Presentation of video films for mathematics lessons in Iraq, Arab and foreign.

Second Semester:

- Follow-up students - applied during their application in their schools through the individual interview in the scientific section or electronically through the Internet by participating in a group of students - Applied to the social networking site.

Fourth: The Calendar

And was in three stages:

The program was evaluated by the specialists in the methods of teaching mathematics in order to complete all the requirements and also took their views on the validity of the components of the program and its suitability to the specific time for the program of practical education and details and the adequacy of activities.

Second, students were tested - applied in the subjects covered by the program theoretically and practically.

The third was the evaluation of the performance of the students - the teachers applied during their application in their schools in the second chapter on the form of evaluation of teaching performance prepared for this purpose.

Search Tool:

Teaching performance evaluation form

It was built according to the following steps:

View the literature and previous studies in this field

It became clear to the researcher through her readings in the field of measuring performance that includes measuring two important aspects of the teacher, which enables him to the content of the scientific material he is studying and

the basic performance areas are planning, implementation and evaluation of their skills sub

The preparation of a preliminary form for evaluation of performance included four areas (the content of the scientific material with five sub-skills and planning with nine sub-skills and the implementation of ten sub-skills and finally the evaluation of eight sub-skills) and thus formed the form of thirty-two skills measuring the teaching performance

The questionnaire was presented to the specialists in the methods of teaching mathematics to make their remarks about them and about adding the fourth field, which is the content of the scientific material. This addition was welcomed and appreciated by all. Some of them expressed their comments about modifying the order of some skills and alleviating each other for fear of not possessing students. Even if they received the training program for the conditions of the grades that will study the student during the implementation stage, which seems unclear during the training phase and the preparation of the form. In this step we have found the apparent honesty of the instrument.

In order to find the stability of the teaching performance assessment form, eight students were evaluated - applied by the researcher and another professor specialized in the teaching methods of mathematics and a teacher of the practical education program. After quantifying the results and using Pearson correlation coefficient between the students' grades - It is a good stability coefficient.

Procedures for applying the experiment:

The researcher studied the two groups since the beginning of the academic year and 3 hours per week for 15 weeks for the academic year (2014-2015) according to the proposed training program and followed the following procedures:

The experimental group

Experimental Group:

- Distribute copies of the proposed program to students and introduce students to the program and the mechanism of implementation and distribution of mathematics books for the first and intermediate grades and the second average for students. (First week)
- Visit a school from the model secondary schools to see the reality of teaching by watching the mathematics lessons of their teachers and benefit from their experiences through the group meetings outside the classroom with them and then open the door of dialogue between the students and the researcher and the students themselves to discuss what they saw in the school of teaching

positions and educational. Students' groups - Applicants The teacher whose lessons were viewed through the teaching performance form prepared for the purposes of this research and evaluated individually by each student - applied (the second week).

- Conducting workshops on topics (analysis of mathematical knowledge, formulation of specific and educational goals, modern strategies of teaching, planning, teaching skills and mathematical communication skills) through training sessions, including theoretical aspects. - Applicants for theoretical information by working in small groups and individually, during which feedback is provided and evaluated by the students - the students themselves and by the researcher according to the form of teaching performance prepared for this purpose and to inform students of their assessments and For a range of fields. (10 weeks)

- Another visit to a school from the model secondary schools and watch the mathematics lessons for their teachers and benefit from their experiences through the group meetings outside the classroom with them and then open the dialogue between the students and the researcher and the students themselves to discuss what they saw in the school of teaching and educational positions and finally evaluate the groups of students - View the lesson through the form of teaching performance that has been prepared for the purposes of this research and evaluated individually by each student - applied. (The fourteenth week).

- Presentation of video films (Iraqi, Arab and foreign) for actual lessons in mathematics and educational films on how to deal with students with learning difficulties and distinguished after the presentation of each video opens the door of dialogue between the researcher and students - Applied to discuss what you see from the attitudes of descriptive and teaching method and presentation content. In the end, students will be tested on the contents of the theoretical program (week 15)

- Follow up students - applied during the period of application in schools through social networking sites and individual meetings in the section.

- Visiting students - applied during the period of application by supervisors two scientific and educational and take the rate of the two grades as a final.

Control Group:

- Distribute copies of the regular program to students and introduce students to the program and the mechanism of implementation. (First week)

- Provide theoretical lectures on the annual and daily planning and classroom teaching skills and provide a quick presentation of the methods of teaching mathematics, which he has already studied in the third stage curriculum mate

rial and methods of teaching mathematics and assignment of students - applied in the preparation of daily plans for secondary school mathematics and follow-up implementation of these duties and provide feedback to assess their course . (second week)

- Visit two schools from the model secondary schools to see the reality of teaching by watching the mathematics lessons for their teachers and then opening the dialogue between the students and the researcher and the students themselves to discuss what they saw in the school from teaching positions and educational evaluation of the teacher through the evaluation form of the program. (The third and fourth weeks).

- The collective application and the application of the students, who are applied to the secondary level, will be discussed by their performance by the other students and the researcher, and feedback will be provided to the student who applies the lesson (11 weeks)

- When the student finishes the application of the first semester.

- Follow up students - applied during the period of application in schools through social networking sites and individual meetings in the section.

- Visiting students - applied during the period of application by supervisors two scientific and educational and take the rate of the two grades as a final.

Statistical methods: Using the statistical package SPSS, the appropriate means of data analysis were identified, including: Pearson correlation coefficient, Levine test F, t test, Alpha Cronbach equation

View and interpret results:

To answer the research question, what is the effect of using a proposed training program in the teaching performance of students of the mathematics department?

The following zero hypothesis was developed:

1 - There is no statistically significant difference at the level of significance (0.05) for the teaching performance between the average grades of the experimental group, which is taught according to the proposed training program and the average grades of the students of the control group that are taught according to the regular program on the teaching performance form prepared for this purpose.

After calculating the scores of the experimental and control groups on the teaching performance form by calculating the graduated levels (5-4-3-2-1) and calculating the total score of the results, the calculation and standard deviations were calculated using the t test for two independent samples as in Table (3)

Table (3) The value of f and t and the level of significance in the teaching performance variable

significant at 0.05	T		F		Stander deviation	mean	Sample	Groups
	Degree of freedom	Counted	significant	counted				
significant	71	6,279	0.107	2,669	22,703	96.73	37	Experimental
					16,448	67.53	36	Control

Table (3) shows that the experimental mean of the experimental performance variable was (96.73) with a standard deviation of (22.703). The computational mean of the control group was 67.53 with a standard deviation (16.448) and the use of the Levin test to find the homogeneity of variance.) Was statistically significant (0.107) compared with the significance level of 0.05, which necessitated the choice of the value of t (6.279), which is statistically significant at freedom level 71 and significance level 0.05.

The results of the proposed training program in teaching performance are generally shown in its four fields (the content of the course is divided into five sub-skills, nine sub-skills, 10 sub-skills and eight subtests). In comparison to the middle of the highest degree dedicated to the skill (2.5), that the student who is the degree of 3 and above can be said to be skilled and the tables below to indicate the ratios of the ability of the students of the sub-skills for each field

Table (4) Field of content of the scientific material

Control	Experimental	Group Skill
70%	87%	Uses accurate scientific language
67%	80%	Uses Modern mathematical terminology
70%	88%	Translates verbal questions into a simple mathematical model
74%	86%	uses an effective problem solving strategies.
95%	95%	Proficient in basic math skills) Draws geometric shapes Perform the four calculations Uses mathematical logic Summary of the steps of the solution)

Table (5) Planning area

Control	Experimental	Group Skill
70%	80%	Analyzes mathematical knowledge
75%	87%	sets a specific goal for the study based on the analysis of mathematical knowledge
80%	90%	analyze the special purpose so behavioral purposes
91%	98%	Determine the means and strategies used to implement the lesson
85%	91%	Identify the activities and exercises that will be presented in the lesson
78%	89%	Determine the activities of the conclusion of the lesson
80%	85%	Defines questions to evaluate post-graduate student achievement

56%	60%	Determines the questions of the homework assignment.
87%	89%	distribute the Lesson time, correctly on plan elements.

Table (6) Field of implementation of the lesson

Control	Experimental	Group Skill
70%	78%	Uses the pre- evaluations to measure the previous information of the new lesson
40%	56%	Identify the difficulties of requesting previous information
67%	70%	Characterizes the levels of student demand through ongoing assessments
74%	80%	Uses appropriate teaching strategies
57%	89%	uses the appropriate teaching moves for the mathematical knowledge which presents in the lesson
79%	86%	The presentation of the lesson is supported by flow - charts and drawings either on the board or using other means
93%	96%	Use of teaching skills (boot - reinforcement - feedback - classroom management - asking class questions - stimulating student motivation towards learning - using available teaching aids)
75%	87%	Communicates with his student is effective (listening - speaking - reading - writing)
79%	70%	Uses education technology
80%	88%	Shows real-life examples that enhance mathematical content

Table (7) Calendar area

Control	Experimental	Group Skill
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56%	60%	Uses diagnostic questions to identify learning difficulties
87%	88%	Uses the final evaluations to determine the student's understanding of the material presented
65%	65%	Uses multiple types to test his student (essay - objective - oral - note - interview)
54%	60%	Train his student self-assessment
70%	76%	create a good achievement test including the mark distribution and the typical answer
80%	83%	puts questions that Considerate the individual differences between the student
60%	70%	Record the achievements of the student in the fall of achievement
60%	65%	compares The student's level of achievement to the previous level and the level of other colleagues

From the above tables, it is evident from the ratios shown for the sub-skill level of each field that most students in the two groups are able to perform sub-skills for all fields. However, higher percentages of the experimental group can be said to be due to training on the proposed training program. In the skills of the calendar in the field of implementation, such as the skills of diagnosing difficulties or diagnosing the levels of students and the field of evaluation with all skills and the two groups with very little improvement in the experimental group and we can note the weakness in the skill of preparing homework questions. In fact, they have a clear weakness in the field of preparation of tests and questions, classroom and enrichment methods and the diagnosis of difficulties, which in turn weakens the area of evaluation as a core field of teaching performance.

Interpreting the results:

The results showed that there is a statistically significant difference between the experimental and control groups in the dependent variable. The reason can be attributed to the following:

1. Building a program that takes into account the needs of the students - the apprentices and their interest in their knowledge, skills and emotional aspects.
2. The adoption of the teaching of the experimental group in small groups gave the students the opportunity to interact positively and positively among each

other and work to take out the potentials of some of them in the positive interaction and the spirit of social cooperation to them, which resulted in their sense of the importance of mathematics and the need for their active contribution in teaching.

3. The steps of implementation of the program in a different order from the regular program implementation steps contributed to highlight the importance of each of these steps, especially with regard to the time and how to implement the lessons of watching in schools as the continuous follow-up during the period of application and especially electronic follow-up role in solving many of the problems encountered as teachers. On the ground this will enhance their self-confidence and develop their teaching performance.

4. The process of displaying video films was an unusual method for students and this reinforced their desire to continue the program. Moreover, the content of these films, whose subjects talk about how to deal with the students of different grades, increased their experience in dealing with students with learning difficulties and excellence.

5. Understanding the students - Applicable to the reality of Iraqi schools under the current circumstances give them the will to implement the strategies that have been trained with their students during the application, which contributed to get good ratings from their supervisors visitors and as a result improve their collection.

Conclusions:

1. By presenting the results, it is clear that there is a trace of the proposed training program for the students in their teaching performance.

2 - The performance of the students who have been trained in the training program in the areas of content, planning and implementation improved, but their level of performance on the evaluation skills can be said to have remained below the required level.

Recommendations:

3- Reviewing the pre-service teacher preparation program at the Faculty of Education for Pure Sciences - Ibn Al-Haytham in line with the strategy of preparing teachers and professional development in Iraq.

4. Through the implementation of the program, the need for more hours than in the current program was clarified in order to ensure that the four performance fields are more emphasized equally.

5 - The curriculum curriculum and the methods of teaching the mathematics taught by the student in the third stage should include hours of practical application. There may

also be hours of experience during which the student will merge into secondary schools for one day a week. It is possible that the hours allocated to watch the secondary schools included in the proposed program will be transferred to the third stage in order to be fully dedicated to the workshops and to watch the lessons through video films and the collective application.

6 - The need to use the proposed training program for the training of students - Applied in the Department of Mathematics in the program of practical education for its impact in the variable research.

7 - the need to pay attention to the application of the contents of the measurement and evaluation related to the construction of diagnostic tests and collection, which is taught by the student in the fourth stage to reduce the weakness in the student's skills - applied in the field of evaluation.

8- Using the teaching performance form prepared for the purpose of this research in evaluating the performance of the mathematics teachers. It is also possible to measure teaching performance by measuring the cognitive aspect with cognitive tests and skill performance through the observation form.

Proposals :

1 - Study the impact of the proposed training program on other variables such as the achievement of student students applied and motivation to achieve them and take into account gender variable.

2 - Evaluating student performance - applied academically, professionally, educationally and culturally.

3 - Evaluation of the reality of the application of the program of practical education in the Faculty of Education for pure sciences - Ibn al-Haytham.

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