Effectiveness of using Microteaching and Thinking style to Develop Teaching Skills in Arab Open University - Jordan Branch

Al-Takhyneh Bahjat
Arab Open University –Jordan Branch
Amman –Jordan

Abstract. This study aimed to investigate the effectiveness of using Microteaching style and Thinking to Develop Teaching Skills in Arab Open University - Jordan Branch.
The participants were 100 of Arab Open University students _Jordan Branch who enrolled in the elementary teaching program, categorized into five groups based on the measurement of the used style of thinking, the researcher developed teaching skills measurement scale and verified its validity, both pre and post teaching skills were measured, also the micro teaching method was used to practice the students on teaching skills, the results were of this study showed that:
- There is statistically significance ($\alpha \leq 0.05$) between the average scores in pre and post teaching skills in favor of post teaching skills in general and in the synthetic, analytic , realistic, and pragmatic thinking style levels , while there is no is statistically significance ($\alpha \leq 0.05$) between the average scores of pre and post teaching skills in idealistic thinking style level .
- There is no is statistically significance difference ($\alpha \leq 0.05$) between the post average scores in teaching skills due to the used style of thinking.
The researcher recommended using the microteaching method with Arab Open University students.
Keywords: microteaching; thinking style; teaching skills; mathematics.

Introduction

The role of mathematics is magnifying in the current time as a result of the scientific and technological developments, which requires the preparation of teachers in a way that develop thinking and help our children to contribute to the development and technology. And in this context, the growing interest in the training of teachers on modern strategies in teaching methods and evaluation in all subjects, especially mathematics comes.

Mathematics privileged a special position in the general education curriculum, it derives that from its usage in many scientific and technological disciplines, which is considered the backbone of other sciences, and therefore teachers need to be pre-service training to ensure their mastery of basic skills in teaching.

One Of the pre-service teachers preparation systems is integrated system, which allows the training of pre-service teachers, and it represented by the content of practical education courses which are taught in the colleges of education, and the content of these materials such as planning, implementation and evaluation skills, which can be trained by the students during their study, study of (alnashef and Winter, 2007), confirms the need to use micro teaching and increase the number of assigned classes for micro teaching.

Microteaching, a teacher training technique currently practiced worldwide, provides teachers an opportunity to perk up their teaching skills by improving the various simple tasks called teaching skills, and it represents a microcosm of the lesson or part of its parts, or a skill of its skills, under controlled conditions, and offers a limited number of educated or trained teachers, a micro teaching is divided into different types which they are: early training on the micro teaching, and training while teaching service, continuous micro teaching, final micro teaching, oriented micro teaching, free micro teaching, general micro teaching, and private micro teaching. And it is offered as mini-stages which they are: teaching, guidance and direction, viewing, preparation for the lesson, teaching, dialogue and discussion, re-teaching, evaluation, and the transition to integrated teaching (Ambili, 2013).

Micro teaching has many skills including: preparation skills, skills to choose teaching materials, distribution and organization skills, presentation skills the thrill of connectivity, annotation skills, enhancement skills, and skills of questions and answers, taking into account individual differences, the skills of movement, and the skills to use teaching techniques, and skills of training and Calendar.

Microteaching (Jezebel and Jane, 1997), is a multi-faceted complex process, the students represent several roles during in the microteaching workshop, including commander of the debate classroom, and an expert of the educational community, librarian ,an instructor to students and the planner of the lessons, the responsible of classroom and the school system and, of course, the students mastery of these roles cast them a continuous consequences so the student should focus on classroom lessons planning and choose the appropriate way to the situation of education and the education individualization.

The microteaching is based on an education analysis process to a set of skills and to apply them, which leads to the departure of teacher in skill learning from using trial and error method, and leads to the acquisition of the required skill to become part of the training behaviors.

Micro teaching has a set of features represented in that it is a real education gives an opportunity for everyone to practice teaching and depends in its training for students on teaching skills in accordance to the mastery teaching in addition to being specified learning situation in according to the steps and procedures which makes the trainer more satisfied, and provides an opportunities for immediate promotion and trains students on basic teaching skills such as : taking into account individual differences, to raise motivation, the goals showing, teaching methods and strategies, assessment strategies, feedback (Arab Open University, 2007).

Micro Teaching is passing a series of mini-stages:
• Identify the required skill by watching it.
• discuss the skill dimensions and the detailed steps with the supervisor.
• Prepare a short lesson, which focuses on the use of this skill.
• Practice in front of a number of students.
• The students observe the trainer performance through video recording.
• discuss the trainer in his performance.
• allows the trainer to review the preparation of the lesson again in the light of feedback.
• repeated this process until the student mastered the required skill.

Styles of thinking: the thinking is defined as the studied investigation of the experience in order to achieve a purpose, this purpose may be an understanding or decision or planning or problem solving. And there are several styles of thinking (Alneaimat, 2006), (Harrison & Bramson, 2002):

1. synthetic thinking: is the individual's ability to communicate to construct and install a new ideas, different and original than practiced by others, and look at some of the views that may allow better prepared and equipped solutions and to link between views that seem contradictory in addition to the mastery of clarity and innovative and possession of skills that reach for it.

2. Idealistic Thinking: It means the individual's ability to configure different views towards things and the tendency to future-oriented and think about the goals in addition to the interest of the individual with its needs on the one hand, and what is useful to other family members and a tendency toward compassion for others and listen to discussions with people and problems and lack of demand for open conflict controversies.

3. Pragmatic Thinking: It means the individual's ability to verify what is right or wrong for personal experience undergone by, and granted freedom and experimentation to find new ways of doing things with the help of raw materials available to him, in addition to take problems gradually and interest in working and procedural aspects.

4. Analytic Thinking: means the learner's ability to cope with problems carefully and methodically and attention to details and planning carefully before making a decision in addition to the maximum amount of information collection and has the ability to contribute to the clarification of things so he could get to rational conclusions through facts that are known.

5. Realistic Thinking: It means the learner's ability to rely on observation and experimentation through the facts perceived by, and this kind includes enjoy of direct and real discussions of current issues and the learner prefers the scientific aspects which related to the realism aspects.

Pre-service teacher: the pre-service teacher's means enrolled students in both the fourth level in social studies and math sections of the Faculty of Education of Sana'a University and who is qualified to be teachers at the secondary level

Teaching Skills: teaching skill defined as the ability of (zaytoun,2001) performance of a particular work / activity related to the planning of teaching, implementation and evaluation, and this can be analyzed to a set of cognitive, motor, and social behaviors and then can be evaluated in light of the standards of accuracy to do, speed of completion, and the ability to adapt to the

changing teaching positions, with the help of the organized observation method, and then can be improved through training programs

Types of teaching skills:

Planning skills: include content analysis and organization of its sequence, and analyzing the characteristics of learners, and to identify instructional goals, and determine the teaching procedures, and the choice of teaching aids, determine the previous requirements, and determine the calendar and homework methods. Implementation skills: include classroom management skills, incentive initialization, use of teaching aids, the implementation of practical presentations, excitability of motivation, and take into account individual differences, and the acquisition of the attention, and the use of asking questions, boosters and summary, the use of suitable teaching strategies such as: (discovery, inquiry, Cooperative learning, programmed education, and individual education... etc). Evaluation skills: include the preparation of tests and its correction and analysis, diagnosis and treatment of learning errors, monitoring grades and interpretation, and the preparation of school evaluation cards, and the preparation of oral questions

Previous studies:

A study was conducted by (Khalil, 1990) on the use of microteaching in development of the general teaching skills of preserve-teachers, study sample consisted of students teachers in Faculty of Education, Assiut, results of the study showed that the microteaching program is better than the traditional process of education in the development of teaching skills.

Another study was conducted by (Mahjoub,1992) to develop the skill of question Of the science pre-service teachers using microteaching via visual registration, study sample consisted of fourth-year students at the Faculty of Education in Sohaj, divided into three groups , the first experimental group which studied the skill of question theoretically and practice using the microteaching via visual registration, while the second experimental group studied the skill of questioning only from a theoretical side, whereas the control group was not exposed to any of the training workers. The study results revealed superiority of the first experimental group students on each experimental second and control groups in the skill of the question, and the superiority of the second experimental group on the control group students skill of question.

(Ali, 1994) studied the effectiveness of using microteaching style on training of the third-year students of the agricultural department, Faculty of Education IN Almena. The sample was divided into two groups, experimental one which trained on the use of micro- teaching style and the other was a control group which trained using the lecture method and practical presentation, study results showed superiority of microteaching style on lecture and practical presentation style in the development of teaching skills.

(Mohammed,1995) investigated the development of some of teaching skills of the teachers student in the Arabic language department by using microteaching method , study sample consisted of students teachers of Arabic Language department in the Faculty of Education, King Saud University, the results of the study showed the superiority of the experimental group that used microteaching style on the students of the control group in the development of question skills

and the use of teaching aids, and classroom management skill, and did not show differences in each of the boot skill, and skill of lesson ending.

(Nassar,1999) discussed the effectiveness of using video tube as a media in the microteaching to prepare teachers to use the skill of probe question, a sample of Balqa University students in Jordan, study results showed the superiority of sample that used the video as a means of media in microteaching and skill of probe question in Education .

(Hindi, 2000) conducted a study to investigate the effectiveness of using a proposed training program using microteaching method in the development of teaching skills of Agricultural Sciences teachers, Faculty of Education, Bani Suef, study results showed the effectiveness of the proposed training program using the method of micro teaching in the development of general teaching skills

(Maria, 2008) made a study on the predicted perspectives of teachers about the microteaching, the study sample formed of 74 teachers, the study explored the perspectives of teachers about planning cycle, education, reflections, and review of lessons, both quantitative and qualitative data were collected through a questionnaire feedback and a written reports about microteaching lessons, the results of the study showed significant improvement in the experience of teachers to teach, and to link theory and practice, and cooperation and reflections, and alternative points of cooperation and learning in groups.

(Stockers, 2008) investigated the effectiveness of video curriculum to develop the reflections of students / teachers and their perspectives and methods of teaching in the mathematics teaching methods course in the university, videotapes were used in the study and data was analyzed quantitatively and qualitatively, the study showed that the use of video curriculum is a powerful approach to the development of educational situations for mathematics teachers.

(Mohammed, 2005) prepared a paper which discusses an important issue, it tried to answer the following question: Why is the contribution of teachers in the development of teaching methods in the classroom is slight? Results of the study showed that teachers did not improve their skills during the education, and education projects are stumbling during Application stage. This paper added different issues related to the development of mathematics teachers and their teaching methods.

Another study was conducted by (Youngju & Jihyun,2014)   to identify how pre-service teachers' self-efficacy beliefs for technology integration (SETI) can be improved during the coursework intervention, and which of the course factors (instructional media development skills, knowledge on technology, and lesson planning practice) has the highest impact on the SETI. This research also attempted to explore a more inclusive path of the direct and indirect influences between SETI and other non-course variables (computer use, teachers' attitude towards computers (TAC), changes in TAC). 136 undergraduate students at a teacher education university in Korea participated in the study. Our data analyses illustrated significant increase of prospective teachers' SETI after their completion of education technology course resulting mostly from lesson planning practice. The hierarchical multiple regression revealed that the pre-service teachers with higher positive attitudes toward computers and greater

ability for lesson planning showed higher increase in their levels of SETI. The path analysis indicated that these two factors influenced the SETI directly, rather than indirectly. Lesson planning practice did not affect pre-service teachers' attitudinal growth. Implications on effectiveness of the lesson planning and attitudinal factors on SETI, and suggestions for teacher education course design are discussed.

(Sadiq &Ahmed, 2013) made a study aimed at investigating the views of sixty-one female teacher trainees from the English Language Education Program in the Faculty of Education in the United Arab Emirates University (UAEU) regarding the microteaching component offered in two courses of English language teaching methods. A combination of quantitative and qualitative techniques was employed for the purpose of gathering the data. Mainly, a questionnaire and a focus group interview were used as the main tools for data collection. Overall analysis of the findings indicated that prospective teachers described a variety of benefits they gained from microteaching experiences.

From the previous studies, we note that there are many studies indicated to the effectiveness of microteaching method in the development of teaching skills and its adequacies, such as the Studies of (Khalil,1990), (Mahjoub,1992), (Ali,1994), (Mohammed,1995), (Nassar,1999), (Hindi,2000) , (Sadiq &Ahmed, 2013), and (Youngju &Jihyun, 2014). also It is noted that the using of microteaching method through videos is effective in the development of methods and strategies of teachers education as indicated in (stockers,2008) study, (Mohammed ,2005) study explained that the most important education issues for teachers is the development of motivation, and the improvement of teaching method, (Maria, 2008) study which discussed the development of teachers reflections about the microteaching, and to link between theory and practice and improve instructional practices of teachers.

This study differs from previous studies since that it discussed the impact of the use of microteaching style on a sample of Arab Open University students, Jordan branch, where this university is characterized by the use of open education, as well as to study the effect of the style of thinking as a variable in the development of teaching skills. The current study is similar to previous studies in the use of microteaching method in the education of students in education colleges and training of pre-service teachers.

Problem of the study: The problem of study is determined by trying to answer the following questions:

Study Questions: the study answered the following questions:

1. What is the effectiveness of using microteaching method to improve the teaching skills of the Faculty of Education students at the Arab Open University?

2. Is the ability of students in the College of Education at the Arab Open University in teaching skills varies depending on the style of thinking?

Importance of study: microteaching has a significance role in education, where this method is a real education provides a direct experiments and trains students on education strategies and regulate education within a clear steps and provides an instant feedback until the mastering of the needed skills achieved, also it is considered a mastering education in terms of the need to master the skill.

mastering of necessary teaching skills by students is necessary to initiate the practicing of the profession of education, and it avoids the teacher from confusion and random and keeps him away from trial and error method, also raises the teacher's self-confidence of its ability to educate and develop friendly positive attitudes towards education.

The importance of the current study comes from the importance of practical education courses which they are taught in the Arab Open University, as a researcher is one of the academic stuff in the in the Faculty of Education in the Arab Open University, teachers, and seeks to apply the best methods that develop students' ability to different teaching skills

Terms of study:

Microteaching: a method for training and preparing of pre-service teachers on the skills of teaching, such as planning, implementation, and evaluation skills, which is a reduced education according to the number of students, the lesson time, the required task that should be accomplished and skill of teaching to be training, and provide feedback in order to master the skill, microteaching passes through the following stages:

1) **Planning stage:**
   • Identify the skill of teaching that the students to be trained on it.
   • Analyze the skill into its components.
   • The student recognizes live written or pictorial examples of the required skill.
   • The student will prepare a plan for that skill

2) **Implementation stage**: the student taught the required skills with a lesson on video recording

3) **Evaluation stage**: providing a feedback, and displaying the microteaching lesson to the trainer for analysis and criticism.

styles of thinking: a set of methods and intellectual strategies that the individual used to handle the available information about himself or about his environment and so about what is facing problems and it measured by the mark that the student gets in the test of thinking in its five dimensions which prepared by Harrison and Bramson and their colleagues, and these dimensions are: synthetic, ideal, pragmatic, analytical, and realistic.

Teaching Skills: defined as the ability to perform a particular activity related to the planning of teaching, implementation and evaluation, and this work is able to be analyzed for a set of cognitive, motor, and social behaviors and then be evaluated in light of the standards of accuracy to do, and the speed of completion, and the ability to adapt to the changing teaching positions, using organized observation method, and then can be improved through training programs, and it is measured by the mark obtained by the student on the evaluation card prepared by the researcher

Study limitations: Results of the study was limited to the following:
- Students of the Faculty of Education at the Arab Open University for the academic year 2011/2012 who enrolled for the first semester.
- Training of students on teaching skills (initialization incentive, the objectives display, a review of the previous requirements, ask questions, teaching strategies (cooperative learning, inquiry, discovery, problem solving,

brainstorming), to raise motivation, taking into account individual differences, structural evaluation, and the final evaluation.

- Results of the study are determined by Validity and reliability of the used tools.

Subjects of study: the sample of the study was formed from the enrolled students in practical education course ED441 in the first semester of the academic year 2011/2012 of the Arab Open University, Jordan branch. 100 students were classified into five categories according to the style of thinking and following table illustrates this:

Table (1)
Classifications of sample members according to thinking style.

Style of thinking	synthetic	idealistic	pragmatic	analytical	realistic
Number	18	16	22	20	24

Tools of the study:

The training program in microteaching: a training program in microteaching was prepared for some basic skills, by accessing some of the world training programs related to the training of teachers, and teachers training programs in mathematics. This program included a focus on the following skills: taking into account individual differences, to raise motivation, showing of goals, teaching methods and strategies, evaluation strategies, feedback.

Microteaching passes through the following steps:

(1) Supply the teachers with theoretical information about the skill to be gained in terms of its principles, psychological and educational concepts that underpin, methods of its performance and conditions of use, and these includes analyzing of the skill to its behavioral steps, and submit them to study it in details.

(2) Present a practical model for skill use in a micro educational situation, and record comments by using the visual recording.

(3) Assign the trainer teacher to plan for an educational situation includes teaching of skill basis on the previous two steps.

(4) The trainer teacher's implementation of the plan drawn up in the form of microteaching lesson with visible recording of the lesson (video).

(5) Evaluation of microteaching lesson by self-assessment from the part of the trainer, as well as from the part of the supervisor and colleagues who viewed the lesson, by remodeling the recorded lesson directly after teaching, and this is called stage of feedback.

(6) Re-planning and implementation and self and external assessment, so that the trainer performed   the required skill in the desired level.

(7) Using the same microteaching method for training on more complex and interconnected skills, so that it can give the trainers the necessary teaching skills to improve their mission performance in the teaching that achieves the desired objectives.

Tool validity was checked by viewing on a group of arbitrators of specialists and experts in the field of mathematics teaching, and made observations were taken into account.

Style of thinking measurement: Bramson and Harrison scale (Harrison & Bramson; 2002) was used, the scale of the 18 position of everyday situations

made up, by 5 phrases for each position, every position expresses the mode of five thinking styles: synthetic, ideal, pragmatic, analytical, and realistic, and the measure is designed to determine the prevailing style and a favorite of individuals. Arabization of scale was made by (Habib, 2004) and applied to the Egyptian environment and reach of the validity of scale through: construction validity, the default configuration, factorial validity, and conjugate validity, and the scale applied on the Jordanian Environment (Alenaimat, 2006) were the validity of the scale was verified submitting it to the group the arbitrators.

Student evaluation in teaching skills model: a model was prepared for student evaluation of basic teaching skills, which they are planning, implementation, and evaluation, the model includes the following skills:

Planning skill: includes the skills of objectives formulation, identification, objectives diversity, and coverage, and to identify ways and strategies and methods of evaluation, and analysis of content, and determination of the previous requirements.

Implementation skill: includes incentive initialization and raise motivation, display goals, suspense students to learn, and the used strategies in terms of suitability for the position of educational learning, and diversity of strategies, and display activities and exercises which they are suitable for everyone, and display in sequential and coherent way, ask a convergent and divergent questions in an appropriate manner, and summarizes the most important ideas using diagrams, giving classroom assignments and home works, as well as for the use of feedback.

Evaluation skill: includes the use of pre-assessment skills, formative, and final, as well as diversity in evaluation methods, and follow-up of students in solving homework.

The tool was presented to a group of arbitrators of university professors in Jordan, and supervisors, and made some comments were taken into account and the tool was modified in the light of the observations.

The study methodology: the quasi-experimental curriculum was used, and one group (pre measuring - processing- post measuring).

Statistical design: the statistical methodology of the research was based on the following calculations: Extract averages, standard deviations, and t-test for one set, in addition to the use of the accompanying analysis of variance (ANCOVA).

The study procedures: The present study went through the following steps:

- access to educational literature and research in the field of teacher training strategies before the service, and different styles of thinking, and a tool to measure the style of thinking and tools to measure teaching skills.
- The training program set up in the microteaching: identify its objectives, its scope, the necessary skills to students and training them to verify the veracity of the program by submitting it to a group of arbitrators in the field of practical education in the Arab Open University.
- Prepare a measurement scale of teaching skills, and make sure of its validity and reliability.
- Choose a sample study of open Faculty of Education, the League of Arab students.
- Apply Harrison Bramson scale to classify students into five categories according to the style of thinking.

- Apply a pre scale of teaching skills on the study groups, and teaching by using the microteaching method, and then apply the post scale on study groups.
- Use descriptive and analytical statistics to reach the results of the study.

Results of the study and discussion:

The study answered the following questions:

1) What is the effectiveness of using microteaching method to improve the teaching skills of the Arab Open University students of the education college?

2. Is there a difference in teaching skills between the students of faculty of education in Arab Open University depending on the style of thinking?

To answer the first question:

What is the effectiveness of using microteaching method to improve the teaching skills of the Arab Open University students of the education college?

The mean, standard deviations, and t-test were used to examine the differences between both pre and post study groups and each style of thinking, as shown in the following table:

Table (2)

T-test results that examine the difference between the pre and post means of the students in teaching skills

group	number	The mean	Std.dev	t-Calculated	Significance level
Pre-teaching skills	100	83.5	18.5	5.19	0.000
post-teaching skills	100	95.5	15.1		

- Significance at level ($\alpha \leq 0.05$)

It is noted from the previous table, that there is a statistically significant differences ($\alpha \leq 0.05$) between the means scores of students in both pre and post teaching skills as the value of t calculated is (5.19) and in favor of post skills due to used method of teaching (microteaching).

Table (3)

T-test results that examine the difference between the pre and post means of the students having a synthetic thinking style in teaching skills

group	number	The mean	Std.dev	t-Calculated	Significance level
Pre-teaching skills	18	76.3	18.9	3.07	0.004
post-teaching skills	18	93.2	13.7		

- Significance at level ($\alpha \leq 0.05$)

It is noted from the previous table, that there is a statistically significant difference ($\alpha \leq 0.05$) between the means scores of students having a synthetic thinking style in both pre and post teaching skills as the value of t calculated is (3.07) and in favor of post skills due to used method of teaching (microteaching).

Table (4)

T-test results that examine the difference between the pre and post means of the students having an ideal thinking style in teaching skills

group	number	The mean	Std.dev	t-Calculated	Significance level
Pre-teaching skills	16	89.0	19.5	1.44	0.161
post-teaching skills	16	98.4	17.6		

- Significance at level (α≤0.05)

It is noted from the previous table, that there is no statistically significant difference (α≤ 0.05) between the means scores of students having an ideal thinking style in both pre and post teaching skills as the value of t calculated is (1.44).

Table (5)

T-test results that examine the difference between the pre and post means of the students having a pragmatic thinking style in teaching skills

group	number	The mean	Std.dev	t-Calculated	Significance level
Pre-teaching skills	22	79.6	19.8	2.06	0.046
post-teaching skills	22	89.9	12.4		

- Significance at level (α≤0.05)

It is noted from the previous table, that there is a statistically significant difference (α≤ 0.05) between the means scores of students having a pragmatic thinking style in both pre and post teaching skills as the value of t calculated is (2.06) and in favor of post skills due to used method of teaching (microteaching).

Table (6)

T-test results that examine the difference between the pre and post means of the students having an analytical thinking style in teaching skills

group	number	The mean	Std.dev	t-Calculated	Significance level
Pre-teaching skills	20	85.7	16.3	2.46	0.018
post-teaching skills	20	98.5	16.6		

- Significance at level (α≤0.05)

It is noted from the previous table, that there is a statistically significant difference (α≤ 0.05) between the means scores of students having an analytical thinking style in pre and post-teaching skills as the value of t calculated is (2.46) and in favor of post skills due to used method of teaching (microteaching).

Table (7)
T-test results that examine the difference between the pre and post means of the
students having a realistic thinking style in teaching skills

group	number	The mean	Std.dev	$t_{\text{-Calculated}}$	Significance level
Pre-teaching skills	24	85.2	17.4	2.7	0.01
post-teaching skills	24	97.8	14.9		

- Significance at level (α≤0.05)

It is noted from the previous table, that there is a statistically significant difference (α≤ 0.05) between the means scores of students having a realistic thinking style in pre and post-teaching skills as the value of t calculated is (2.7) and in favor of post skills due to used method of teaching (microteaching).

Summary of the first result: there is a statistically significant difference (α≤ 0.05) between the mean scores of students in both pre and post teaching skills in favor of a post teaching skills in general and especially in each of synthetic, pragmatic, analytical and realistic thinking style due to the used method of Teaching (microteaching), while there was no statistically significant difference (α≤ 0.05) between the mean scores of students having an ideal thinking style in both pre and post teaching skills.

This explains the importance of microteaching method, as this method also pointed to that educational literature and develop the students ability to learn teaching skills of planning, implementation and evaluation, and provides a practical application carried out by the students themselves and provide them with immediate feedback, a real education provides real experiences directly, It is a mastery education in terms of the need to master the skill.

This result is consistent with the results of some studies (Khalil, 1990), (Mahjoub, 1992), (Ali, 1994), (Mohammed, 1995), (Nassar, 1999), (Hindi, 2000), which shows the importance of using microteaching style in the Arab Open University in the development of educational skills.

As for the students with an ideal thinking style, the results did not indicate to a difference between the student average scores in both pre and post due to the used method of microteaching, this can be explained by the fact that the students with an ideal thinking are always thinking in achieving of goals and attention to the needs of the individual, and what is beneficial to other members and tilt about respect for others and enjoy discussions with people and their problems.

To answer the second question:

Is there a difference in teaching skills between the students of faculty of education in Arab Open University depending on the style of thinking?

The mean, standard deviations, and Analysis of covariance (ANCOVA) were used to examine the differences between the means scores of students in teaching skills according to the style of thinking, as shown in the following table:

Table (8)

Analysis of covariance (ANCOVA**)** results for significance differences between the means of thinking styles groups in teaching skills

Source of variation	Sum of squares	df	Mean squares	F	Sig
Covariance variable(pre-teaching skills)	18.5	1	132.4	0.59	0.446
group	1353.5	4	338.4	1.5	0.21
error	21264.9	94	226.2		
total	22636.9	99			

• Significance at level ($\alpha \leq 0.05$)

We note from the previous table that there are no statistically significant differences at the level of ($\alpha \leq 0.05$) between the means scores of students in post teaching skills due to the used style of thinking.

Summary of the second result: there are no statistically significant differences at the level of ($\alpha \leq 0.05$) between the means scores of students in post teaching skills due to the used style of thinking.

The explanation of this result is that regardless of the style of thinking the students can master the teaching skills, all levels of thinking styles are similar in the ability to improve the teaching skills, and there is no study according to the knowledge of researcher opposed to this result.

This result is consistent with the result of (Funmi &Leslie, 2009) study which emphasis on the use of on-campus microteaching to facilitate simultaneously pre service teachers' performance of effective teaching skills and their capability to reflect meaningfully on their emergent teaching actions. In making a case for greater focus on the implementation of microteaching in pre service teacher preparation.

Microteaching (Ambili, 3013) provides teachers an opportunity to perk up their teaching skills , with the proven success among the novice and seniors, microteaching helps to promote real-time teaching experiences. The core skills of microteaching such as presentation and reinforcement skills help the novice teachers to learn the art of teaching at ease and to the maximum extent.

Teaching skills can be improved by using microteaching as indicated in the study of (Youngju & Jihyun, 2014) which emphasized the using of microteaching in various fields of education.

Recommendations: The researcher recommends the following:
- Using microteaching method for students in the colleges of education in the process of education materials, and the training of students to teaching skills through this method, regardless of the method used to think.
- Use other methods to develop the student's ability in different teaching skills.

References:

Alenaimat, R. (2006). Styles of Thinking of Mutah University Students and its Relationship to Sex and Field of Study and Achievement. Unpublished MA Thesis, Mu'tah University, Jordan.

Ali, F. (1994). Extent of Effectiveness of Using Microteaching Method on the Training of the Third Year Students of Agricultural Division, Faculty of Education on some

teaching skills and its impact on their performance in the education process, Journal of research in Education and Psychology, College of Education and queens, July,1-23.

Alnashef, S.; winter, P. (2007). Effectiveness of Microteaching in the Development of Governmental Education College Students for Teachers in the Sultanate of Oman. Studies, 34(1), 122-129.

Ambili, R. (2013).Microteaching, an Efficient Technique for Learning Effective Teaching, journal of research in medical sciences, 18(2): 158–163.

Arab Open University. (2007). Practical Education (1), the Deanship of the Faculty of Educational Studies, Arab Open University.

Funmi A.; Leslie I. (2009). Implementing on-campus Microteaching to Elicit Pre service Teachers' Reflection on Teaching Actions: Fresh Perspective on an Established Practice, Journal of the Scholarship of Teaching and Learning, 9(1), 27 – 34.

Jezebel, l.; Jane, D. (1997). Educational Supervision of Teachers, Translation: Mohammad Eid Dirani, a review of Omar Sheikh, the University of Jordan, mainstay of scientific research, Amman.

Habib, M. (2004). Thinking Test Methods. Instruction booklet, 2nd Floor, Arab renaissance, Cairo library.

Harrison, A.; Bramson, R. (2002). The Art of Thinking. Berkley Books, New York.

Hindi, M. (2000). Effectiveness of a Proposed Training Program Using Microteaching Method in the Development of Some of the Teaching Skills of Teachers in Agricultural Science Junior, Journal of Science Education, 4(3), 41-76.

Khalil, O. (1990). Use Mini Teaching in the Development of Some of the General Teaching Skills of Preserve-teachers, **Journal of the College of Education in Assiut**,6(1), 46-76.

Mahjoub, A. (1992). Development of Question Skill for Pre-service Science Teachers Using Microteaching Visual Register, **Journal of Education**, College of Education in Sohag, 7(2), 51-89.

Maria, L.F (2008). Developing Knowledge of Teaching Mathematics through Cooperation and Inquiry, **Mathematics Teacher**, 101(7), 203-215.

Mohammed, R.F. (2005). What Hinders Change in Classroom Lessons? Lessons from the Field and Future Direction in Pakistan, **Journals of In_ Services Education**, 32(3), 375-385.

Mohammed, Z. (1995). Development of Teaching Skills of the Arabic Language Students by Using the Micro-method of Teaching, **research in the Journal of Education and Psychology,** College of Education and queens, 4(8), 49-70.

Nassar, T. (1991). Effectiveness of Using Videotapes as a Mean of Media to Prepare Teachers on Using the Skill of Using Probe Questions in Jordan, **Journal of the College of Education in Zigzag**, 31, 99-121.

Sadiq, A.; Ahmed, I. (2013). Student Teachers" Microteaching Experiences in a Pre service English Teacher Education Program, **Journal of Language Teaching and Research,** 2(5), 1043-1051.

Stockers, S.L. (2008). Using a Video- Based Curriculum to Develop a Relative Stance in Prospective Mathematics Teachers, **Journal of Mathematics Teacher**, 11(5), 373-394.

Youngju,l.; Jihyun, l. (2014). Enhancing Pre Service Teachers' Self-efficacy
Beliefs for Technology Integration through Lesson Planning Practice, **Computers, and Education**, 73, 121-128.

Zaytoun, H. (2001). **Teaching skills** (see the implementation of teaching). Cairo, the world of books.

Appendix
Assessment form of student / teacher in teaching skills
Assessment of class lesson
Name: .... Grade: .... Course:.......................
Date: .... school: .... subject: ....

No.	skill	Evaluation				
		Very high	high	medium	low	Very low
	Planning					
1-	Formulation of lesson objectives in an appropriate behavioral and linguistic manner.					
2-	Diversity of objectives and coverage.					
3-	Determination of previous requirements.					
4-	Distribution of time.					
5-	Content analysis into: skills, concepts, generalizations and solving problems.					
6-	Determination of the appropriate tools and strategies.					
7-	Identifying evaluation methods.					
	Implementation:					
8-	to provide an appropriate initialization					
9-	Showing goals in an interesting way					
10-	Review of the necessary requirements of the new learning.					
11-	To raise motivation and the thrill of the students by asking provocative questions to think about the topic.					
12-	Appropriation of learning tool for the educational situation.					
13-	Appropriation of educational strategy for the educational situation.					
14-	Diversity in teaching methods according to the educational situation.					
15-	Classroom management in an effectively, freely and democratically way.					
16-	View of activities and various exercises.					
17-	Taking into account individual differences among students.					

18-	Linking of scientific knowledge with life situations.					
19-	Display the subject in a way that other substances appear.					
20-	Logical sequence in the content presentation.					
21-	Organization of classroom environment.					
22-	Full use of the time (time investment).					
23-	Give a clear instruction before moving from one part to another in the course of teaching.					
24-	Organization of student's answers and follow-up.					
	Evaluation:					
25-	use the pre evaluation and identify learning difficulties					
26-	Use of structural evaluation.					
27-	Use the final evaluation.					
28-	Diversity in evaluation methods.					
29-	Give a classroom assignments and homework.					
30-	Provide feedback.					
	Total					
The upper limit = 150, Minimum = 30 The mark of 100 = (total score ÷ 150) × 100 =						

Additional notes:

1..

2..

3..

4..