# Attitudes of 4<sup>th</sup> year Teacher towards Teaching and the Relationship to their Achievement (Degree)

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### **Abstract**

This study addresses the attitudes of 4<sup>th</sup> year teacher-students of mathematics and Special Education Specializations at Jubail College of Education towards teaching, and the relationship to their achievement (degree) in the specialized mathematical courses of educational preparation. The theoretical importance of studying the attitudes of teacher-students of mathematics and Special Education for students with mathematics learning abilities student-teachers' (students studying in College of Education) attitudes stems from its importance in future planning of teaching at the Kingdom of Saudi Arabia (KSA) level. In addition, it is an influential factor in broadening students' admission to the College of Education. Also, the stage addressed by this study is critical because it is the final stage of the students' study. These students are about to graduate and head for field and practical application where the specialized educational courses appear to be mostly beneficial. The study sample that was randomly selected consisted of the (28) Mathematics Department's female students who were studying "Mathematics Methodology" at the 6<sup>th</sup> level, and "Design and Develop Mathematics Lessons" at the 7<sup>th</sup> level of the scholastic year 1435/1436h.The sample also consisted of (45) Special Education female students studying "Mathematics for Special Education Teachers" at the 7<sup>th</sup> level of the scholastic year 1435/1436. The study instrument consisted of "The Attitude towards Teaching Scale", which was sought from a study conducted by the researcher Ahmad Al-Hussein, with the title "Attitudes of Imam Mohammad bin Saud Islamic University Students Towards Teaching". The instrument consisted of (32) paragraphs with a 5-point rating scale (completely agree, agree, do not know, disagree, strongly disagree), which was extracted from the peer-reviewed scientific periodical of Education and Psychology Message, issued by Saudi Educational and Psychological Association, No.(35) of the year (2010). The study adopted the reviewer's validity

Chronbach Alpha for internal consistency to calculate the reliability of the study instrument which was (0.73) for the study instrument scale used to measure the attitudes towards teaching. This value is adequate for the research purposes of the study. Statistical treatment was concerned with calculating the means and standard deviation, Pearson correlation coefficient between the means of the study sample attitudes towards teaching and their achievement in the courses of specialized mathematical courses of educational preparation. Regression analysis was also calculated, in addition to the ANOVA variance, to identify the relation of attitudes common among the study sample towards teaching as an independent variable, and their degree in the specialized mathematical courses of educational preparation as a dependent variable. The study concluded that there is a weak attitudinal correlative relationship, towards teaching with the degrees of students from the Mathematics and Special Education Department, according to the statistical treatments, in specialized teaching methods of mathematics/education courses. The weakness of such correlation is ascribed statistical treatments, in specialized teaching methods of mathematics/education courses. The weakness of such correlation is ascribed to the weakness of some of students' attitudes as shown from their response to the paragraphs of the questionnaire. This requires fostering and developing students' attitudes towards teaching in a way that helps in raising their achievement at the specialized mathematics/education courses. The study recommended that educators at the Colleges of Education should consider fostering attitudes towards teaching, because it raises students' achievement at the educational courses in particular, and academic courses for the students of the Colleges of Education in general.

**Keywords:** Attitudes, Teacher -Students of Mathematics, Special Education Specializations at Jubail College of Education, Teaching, Achievement (Degree), Specialized Mathematical Courses, Educational Preparation

Study Problem and Importance

The importance of studying the Attitudes of mathematics and Special Education of 4<sup>th</sup>student-teachers at Jubail College of Education towards Teaching and their relation to their achievement in specialized mathematics courses of educational preparation stems from the future role they are expected to play in teaching the nation's children. Assigning these new graduates the task of teaching, without considering their attitudes, constitutes a great challenge. New teachers are considered the pillars of our homes, sons and students, along with their colleagues working in the educational field, including their positive or negative attitudes, since the teacher is the most important link in the educational process. S/he occupies the first place in the factors and reasons on which the success of the educational process is based, in order to achieve the desired outcomes. Female students' attitudes at Alin order to achieve the desired outcomes. Female students' attitudes at Al-

Jubail College are different, since they are formed according to the different professional and academic preparation, social environment, economic and political opinions and the cultures from which such students spring up including science, knowledge, attitudes and experience, values, customs, ideas, habits and morals contained in such culture. Some educational studies such as the study of (Ja'anini, 1999, p.68) emphasized that the success of the educational process in all its dimensions lies greatly on teachers as individuals. This requires having a good teacher with high educational attainment, proficient lingual ability, and social skills; in addition to personal attributes such as bearing responsibility, honesty, and dedication to work, self-confidence, flexibility, objectivity and holding to teaching ethics. A number of educational literature and studies such as (Al-abiedi, 1987, Sawaftah & Khalifah, 2009; Al-Katheri & Nassar, 1430h; Johnson, 2007) Sawaftah & Khalifah, 2009; Al-Katheri & Nassar, 1430h; Johnson, 2007) indicate that whenever a teacher has positive attitudes, s/he would be efficient and acceptable among students, and so students would acquire such attitudes and imbibe a lot of his values and opinions. Interaction is achieved through the positive transfer that is considered one of the characteristics of active teaching. Some of the criteria of active teaching were summarized by (Raslan, 1420h) such as: the vital role of teaching, which targets goodwill and public interest; gaining skills based on a theoretical knowledge that allows a deeper understanding and analyses of the profession's problems in order to proffer appropriate solutions; educational qualification; organized preparation that qualifies students to the profession's practices and ethics; in addition to keeping up with modern developments evolving daily. This requires establishing training programs for the profession's practitioners to keep up with the latest developments in the field. In this regard, the specialized educational courses that help female students in the educational preparation receive an interest from female students concerning studying of such courses, following them up and seeking achievement in them. This indicates that they absorb the theoretical and practical vocabulary, concepts and terminologies of such courses. Such preparation requires a great effort by both faculty and students. Since student-teachers are going to prepare our future generation, their work is not separated from the social and cultural conditions prevalent in the society. This helps them in bearing the responsibility laid on their shoulders, and forming the attitudes (that are supposed to be the core of the preparation programs in the university and college) that are a major factor in teacher preparation. (Hadi & Murad, 2005, p.21), and their achievement in the specialized educational courses. Attitudes pass (in their formation) through gradual level apt to be modified through adaptation an indicate that whenever a teacher has positive attitudes, s/he would be

individual's value constructs, or by general personal readiness or through providing information and experience that contradicts with what one owns; or by modifying the attitudes that are dominant in their social environment (Al-Azhari, 1989, p.192), as cited by Hadi & Murad, 2005), through programs prepared specifically for that purpose and as recommended by (Al-Shiha, 1988). Hadi & Murad, 2005 consider that depending on the previous achievement and intelligence ratio is inefficient in predicting work success in the future. This emphasizes the importance of the attitudes studies, which detect the degree of student- teachers' acceptance of practising teaching in the future.

# **Study Problem**

The study problem stems from the important school achievement in the specialized courses. Specialized educational courses prepare teacher-students for teaching mathematics, teachers who are specialized in mathematics, teachers students specialized in Special Education, and mathematics teachers for students with learning difficulties. Since attitudes towards teaching are considered vital in the way students—teachers (the sample subjects) accept teaching and practice it efficiently and in a way that supports the process of preparing students who think creatively — since the school's mathematics course help in developing thinking and operating the mind to serve their society and solve the community's problems. Studying Attitudes of students is important because:

- they are future teachers specialized in mathematics and Special

- they are future teachers specialized in mathematics and Special Education at Al-Jubail College of Education, since they form an influential factor in future planning of the teaching profession at the national level.

  The importance of attitudes for students' achievement in general and for mathematics educational specialization courses among the College of Education female students in particular.

- they are an influential factor in broadening the range of admitting male and female students into educational departments in the colleges.
  the study deals with and its accordance with the final stage of the female students' study which makes knowing the graduates' attitudes an urgent requirement.
- it is hoped that the Ministry of Post Graduate and the Ministry of Civil Services and Status in Saudi Arabia benefit from the results of the present study.

# **The Study Questions**

The present study seeks to answer the following main questions: (What are the attitudes of mathematics and Special Education student-teachers at College of Education/University of Dammam towards teaching

and their relation to their achievement in the specialized mathematical educational courses?). The following questions stemmed from the main question:

- What are the attitudes of mathematics and Special Education student-teachers at the College of Education/University of Dammam towards teaching?
- What is the range of correlation of the attitudes of mathematics and Special Education student-teachers at the College of Education/University of Dammam towards teaching and their relationship to their achievement in the specialized mathematics courses?

The Study Objectives
- The study aims to identify the attitudes of mathematics and Special Education student-teachers at Al-Jubail College of Education towards teaching. It also aims to identify the relationship of the range of the attitudes mathematics and Special Education student-teachers at the College of Education towards teaching and their relationship to their achievement in the specialized mathematical educational courses)).

# The Study Terminology:

- **Attitude**: The total of the study sample subjects' positive or negative responses- female students specialized in mathematics and Special Education- on the attitudes towards teaching scale.
- Attitude Scale: The evaluation of the responses of the study sample subjects to the total situation. It usually consists of phrases that measure attitudes towards a certain thing in a way that the subjects' responses are limited to a certain number of distracters. Such distracters are often given weights that are called "value associated with a subject response" (Al-Maqoosi & Sha'wan, 1991). This study has a procedural agreement with this definition.
- Teaching: An organized purposeful process that aims to increase the skillful and cognitive command of students in addition to foster students' positive values (Al-Omar, 1428h). This study has a procedural agreement with this definition.
- Attitude towards Teaching Profession: The positive or negative degree that female students specializing in mathematics and Special Education get and that is concerned with teaching along the five concepts which, the scale of attitude towards teaching consists of.
   Specialized Mathematical courses of Educational Preparation:
  These are educational preparation courses for female teacher-students that are prepared by a mathematics teacher for mathematics specialization; these
- courses are Mathematics Methodology, and Design and develop

Mathematics Lessons. They are also prepared by the mathematics teachers to students with learning difficulties for the Special Education specialization. This course is Mathematics for Special Education Teachers.

- Achievement: The result that the teacher- student gets at the educational preparation of mathematics specialization. These courses include Mathematics Teaching Methodology, Design and Develop Mathematics Lessons, Mathematics for Special Education Teachers.
- **Teacher-student**: The student who studied the educational preparation of Mathematics Specialization.

- The study Limitations: This study is limited to:

  The measurement of the attitudes of a group of the 4<sup>th</sup> year 1435 1436h Mathematics and Special Education student-teachers at Al-Jubail College of Education / University of Dammam towards teaching, and who studied the specialized mathematics courses of educational preparation. These courses include Mathematics Teaching Methodology, Design and Develop Mathematics Lessons, Mathematics for Special Education Teachers.

  The relationship of the attitudes of Mathematics and Special Education student-teachers at the College of Education at Jubail/ University of Dammam on their achievement in the specialized mathematical educational courses only
- educational courses only.
- Specialized mathematical educational courses. These courses include Mathematics Teaching Methodology, and Design and Develop Mathematics Lessons for teacher- students specializing in Mathematics. Mathematics for Special Education Teachers for teacher- students specializing in Special Education.

Theoretical Framework: Attitudes play a decisive role in teaching and performance. The attitudes of teacher–students towards teaching profession and the educational university activities in its two parts of academic and educational preparation influence their ability in achieving the educational and learning outcomes. Attitudes constitute an important point in students' personality; they have their origin in their internal senses, acquired habits and environmental impacts surrounding them. The degree of attitudes varies in its strength and weakness depending on the variance of students themselves. Students' attitudes are considered the first step, and a part of the constituency of the group attitudes. Forming positive attitudes is considered one of the most important targets that any country aims to achieve among their students. Such aims foster the importance of attitudes, and so hold a conspicuous place. Attitudes are defined as a "mental, neurological situation that is organized through experience and has a dynamic and direct influence on individuals' response towards all the topics or situations related to such situation". Attitudes also have a number of attributes that distinguish them

from other variables, or other psychological phenomena. Such attributes are defined by (Melhim, 1430h) as:

- Acquired, learnt and not static.
- Apt for evaluation and assessment through the observed behavior. Attitudes are formed and are related to social stimuli and a number of groups or individuals share them.
- Can be expressed by phrases that indicate emotional inclinations and individual inclination that don't form a part of the community culture.
- Can be hidden.

Can be hidden.

Researchers of personal psychology consider that personality, in a great part of it, is a group of psychological attitudes that are formed among individuals and are affecting their habits, interests, emotions and their various behavioral techniques. The harmony of these psychological attitudes decides the strength of one's personality. The range of our understanding of individual's attitudes decides our understanding of individual's personality. From a social perspective, the importance of attitudes lies in the fact that they are one of the major determiners that control, guide and organize social behavior. Therefore, any social change requires, in the first place, knowing the dominant attitudes among any community/ individual, and knowing its inclination towards modification and transformation towards the desirable change. The formation of new attitudes that contradict one's innate attitudes change. The formation of new attitudes that contradict one's innate attitudes often leads to hindering achieving what we aim for in progress and development. Attitudes carry out functions, such as performing a pragmatic function that may become a means to achieve a desirable aim. Attitudes express values and ideas and beliefs of any individual. They determine the direction of an individual's behavior, and organize motivational, emotional and cognitive processes related to some of the topics available in the area where an individual lives.

### **Attitude Constituent**

Attitude consists of three main elements specified by (Al-Aklabi, 2001):

### **Cognitive Constituent**

This includes students' belief, ideas, information, knowledge and the facts available to them.

#### **Emotional Constituent**

This indicates students' feelings and emotions such as anger, fear, joy, love and hatred.

#### **Behavioral Constituent**

This indicates students' readiness to carry out actions that agree with their attitudes. It determines behavior and motivates it. Attitude constituents can be linked by the known education aims (cognitive, emotional, and skill) to be developed in a correct and complementary way. (Al-Zayyat & Qattawi, 2010) consider that attitude constituents "successive stages through which attitudes pass through to form a hierarchy format represented in reflection choice stage, choice and favoring stage, advocacy and participation, guidance, practical invitation and then the stage of sacrifice..."

# **Types of Attitude**

There are various types of attitude according to the variance and diversity of students. These kinds are summed up by (Al-Zayyat 7 Qattawi, 2010) as follows:

- <u>Strong Attitude</u> which expresses students' attitudes to certain points such as students' attitudes towards the advocacy of Prophet Mohammed (Peace be upon him).
- Weak Attitude which express students' attitudes to certain points such as students' attitudes towards attending meetings held in the college.
   Positive Attitude, such as students' inclination to help other students
- at university.
- Negative Attitude (exactly the opposite of the positive attitude) refers to keeping away from a certain stimulus such as students' inclination towards avoiding interacting with students in the college.
   Extrovert Attitude which refers to students' attitude for something that is not awkward to announce in front of his colleagues, such as attitude
- towards a certain course or a certain sporting club.
- <u>Introvert Attitude</u> in which students try to hide things from their colleagues and keep them to themselves. They may even deny such things sometimes, such as the attitude of liking or disliking certain people.
- <u>Group Attitude</u> which is a joint attitude seen among a great number of students, such as the attitude of admiring leaders and influential figures at the society.
- <u>Individual Attitude</u> which distinguishes a student from other students, such as admiring a certain friend while another student admires another.
- <u>General Attitude</u> which is a dominant attitude towards great issues such as political and religious attitudes.
- Quality Attitude which focuses on the individual's distinctive qualities.

**Attitudes Measurement:** There are various types of attitudinal measurement, according to the variance and diversity of students themselves.

- These are summed up by (Mukhtar, 1982); (Al-Anzi, 1419h); (Omar et al., 2010) and (Zayyat & Qattawi, 2010):
  o Boiardo's Scale is the oldest scale. It is called Social Distance Scale since he chose to measure the degrees of acceptance or remoteness in the image of distance which respondents desire to keep between themselves and these elements. The more the acceptance, the less the distance is.
- Thurstone Scale is used to measures attitudes towards certain topics.
- He chose that intervals between the elements are equal with unified distance.

  Likert Scale is suitable for a variety of topics. It is more reliable than Thurston scale, because each paragraph has a number of responses in front of them. The research used Likert scale because of its convenience and harmonization to the study sample after revising a number of the relevant studies.

studies.

O Jutman Scale is appropriate for measuring the attitudes that accept gradable paragraphs, which limits the usability of that scale.

Teaching: A situation characterized by interaction between two parties, each has certain roles played to achieve certain aims. This means that students are no more negative in their attitudes. The basic role of educational plans and programs is to make students acquire the functional basic knowledge, in addition to acquiring the skills of scientific thinking and forming positive attitudes towards the work to participate positively and actively in building up the community (Muhammad, 2005). This can be achieved through knowing teachers' attitudes and comparing them with their educational practices because:

O Each teacher has an attitude towards teaching

- educational practices because:

  O Each teacher has an attitude towards teaching.

  O Each teacher has a personal definition of teaching stating what the teacher chooses to carry out, or does not to carry out.

  O Each teacher has a group of attitudes and assumptions about the nature of the teaching process and about students in general.

  O Each teacher has a group of personal values that determines the characteristics and features of processes carried out inside the classroom.(Richardson, 1996)

classroom.(Richardson, 1996)

The quality of achievement among students depends on focusing on teaching in order to understand which helps in learning transfer to other situations, and the complementation of science and other kinds of knowledge. Learning accompanied by comprehension makes post-learning easier and meaningful, with an increase of recalling and application, especially when students link the new knowledge with the old, using meaningful methods. Good related ideas that are built on concepts are more apt to be used in new situations (Muhammed, 2009). The title of teachers' knowledge and students' learning at the same time is also a result of teachers' school studies and the way it is taught regarding teacher

preparation, and understanding of the methodological rules (Ma, 2010). Contemporary concepts of teacher education focus on the adequacy of the teacher as an educator , behavior adapter, and competent healer, and inferring on a group quality competencies. This can be used in teacher training and in developing their performance, in addition to providing them with a group of general and special competencies that qualify them to lead the educational process, and to gain the competency necessary to keep up with cognitive development and to implement their tasks on previously known, specific foundations (Ibrahim, 2003). A competent teacher is a person who possesses a certain skill with self-confidence that provides them with the ability to initiate it. Each competency consists of knowledge, behavior, and ability to employ such knowledge (Adas, 1996). Competency is the ability to efficiently achieve a certain job or task, that is, with the least effort and cost, and with the greatest possible effect. Competency may be cognitive or procedural (Abul-Haija', 2001). Skill, on the other hand, is a thing that an individual learned to perform easily and efficiently because of understanding and knowing it physically or mentally (Hussein, 1996). Since those who are responsible for the teaching process or who bear the task of teaching in the first place is the teacher, learning helps in increasing comprehension and deeply searching for the way students learn (Chapin & Johnson, 2006). As the teacher plays an effective role in making the learning process succeed (Abed, 2001), classroom teaching is carried out with the availability of its components and constituents that form in general a system called "teaching system". These elements are the teacher, the school syllabus, classroom activities, extra-curricular activities, leaning aids and resources, teaching methods and strategies, evaluation and its instruments and feedback. Through this system, teaching requires what is known as "teaching competencies", which can be defined as evaluation.

# **Mathematics specialization**

The program grants a bachelor degree in Mathematics. The qualification of those getting this degree in Mathematics enables them to join postgraduate studies to get a Master's degree or a PhD degree.

# **Mathematics Department Objectives**

The program of preparing Mathematics teachers at the College of Education / University of Dammam aims to achieve the following:

- Prepare graduates to apply their knowledge of mathematics in a way that contributes in building strong foundations for the postgraduate students.
- Prepare graduates for active participation in the educational activities, in addition to drawing up strategic plans necessary for the development and improvement process in the relevant educational fields.
- Support graduates to keep up with the modern technology age in teaching and practices, educational activities, and planning for establishing an empowered generation to apply the information and communication technology.
- Foster the graduates' skills to encourage them to play an active role in the society, and build up purposeful communication relationship with the community.
- Transplant motivation and desire for achievement and keeping up with the modern changes in the educational fields.
- Prepare graduates to join the knowledge community and to actively participate in building it up.
- Foster the responsibility of self-education among the female graduates to gain new knowledge and skills.
- Prepare female graduates to practice the ethics of teaching profession, while maintaining the Islamic and Arabic identity.

# **Special Education Specialization**

Achieve pioneer status at the KSA level in an excellent academic educational environment that stimulates development, prepares feminine competitive leaderships that share in building up the Saudi society, and provides various scientific research and consultation for people with special needs (learning difficulties) in the light of the national development plans.

**Special Education Department Objectives**The program of mathematics teacher preparation for people with learning difficulties at the College of Education/ University of Dammam aims to achieve the following:

- Graduate educational teachers specialized in Special Education according to quality criteria and academic accreditation that enjoy Islamic morals.
- Prepare feminine competitive leaderships through providing disability programmers, learning difficulties and behavior adaptation.
   Participate in making undergraduate students gain various knowledge and skills in diagnostic and remedial intervention through the specialized department courses.

- Provide educational programs, and individual, group and leadership plans to equipp women cognitively and skillfully to become teachers for the Resource Room.
- Activate government and private sector companies through providing consultations in the specialization field.
   Participate in developing teachers' performance at the teaching institutions through enriching supportive and co-operative scientific research.
   Contribute in leading scientific research through co-operation with the scientific centers specialized in disability in its various sectors.

- Active community participation through educational remedial training programs for the special cases at the various workshops.
   Develop the skill of using modern technology in the planning, implementation and management of educational activities related to Special Education.
- Qualify the program to gain academic accreditation.
   The educational preparation program for teacher- students at the College of Education/ University of Dammam aims to:
   prepare female students to perform their educational roles in the light
- of Islamic criteria.
- 2. make the female teacher-students acquire managerial skills that will enable them to effectively manage and control their classes.
- acquaint female teacher- students with functional teaching
- methodology for use in the educational process.

  4. ensure female teacher-students' acquisition of knowledge concerned with the psychological characteristics of learners, how to deal with them, and the ways of guiding and advising them, in addition to solving their various problems.

### **Previous Studies**

Because of the importance and status of teaching, it has received numerous studies that include studies of students' attitudes (teachers) at the Educational Science Colleges, but such studies do not cover a lot of sectors in many educational institutions.

Al-Jamal Study (1983), under the title of: (The effect of studying at the University of Jordan on the attitude of its students towards teaching). The aim of the study was to recognize the attitudes of the University of Jordan students towards teaching when they join the college, and to compare them with the students of the final study level to address the change of their attitudes. The results of this study indicate that there were no significant differences in the attitudes of male and female students of the first and differences in the attitudes of male and female students of the first and second level towards teaching. There were no significant differences among the levels of the different achievement categories. Marso & Piggy (1986)

carried out a study that aimed to identify the relationship between students' characteristics and the changes during students' learning in anxiety, attitudes and interest in teaching. The sample consisted of (394 subjects), including (151) students of the Education College, and (81) teachers. The researchers used the questionnaire and observation as instruments for collecting data. The researchers had the following conclusions:

- The attitude of the study sample towards teaching in general is positive.
- Female attitudes are more positive than male attitudes towards teaching.
- Anxiety rate towards teaching has gradually declined with students' level.

Al-Sheha (1988) conducted a study with the title (The attitudes of students towards teaching in Saudi Arabia). This study aimed to identify the concepts of the College of Education students at the Universities of King Saud, Omm Al-Qura, King Faisal, of the factors that make any profession desirable, and to identify their attitudes towards teaching. The study concluded that the most important factors that make students like to take up a certain profession are: its importance for the hometown, its ability to arouse students mentally, the social status resulting from taking up that profession, and that students' attitudes towards teaching as a profession is positive. Nevertheless, they consider that teaching requires less time than other professions and enables teachers to get holidays, and through that profession, they may get promotions, in addition to securing a respectable position in the society. The study concluded that there are factors driving students to be reluctant to become teachers, such as "the community perception about teachers, the school equipment, teachers' status and people's respect of teachers." Al-Azhari (1989) carried out a study with the title "The Attitudes of female students at the Education College at Al-Rass towards teaching." This study aimed to: identify the attitudes of the students of Intermediate College for Girls at Al-Rass / Saudi Arabia towards teaching when they join such colleges; compare the attitudes of the 1st semester students with the attitudes of the teachers who began to teach after graduation. The study concluded that there were significant differences at the level of (0.01) in the attitude towards teaching that can be ascribed to the educational and practical preparation that students receive at these colleges:

There are significant differences at the level of (0.01) in the attitude towards teaching that can be ascribed to the educational and practical preparation female students receive at the colleges.

There are significant differences at the level of (0.01) among graduates and teachers and students for the benefit of teachers and graduates in their attitude towards teaching.

Shahin (1990) carried out a study with the title "The Attitudes of Community College Students towards Teaching in Jordan." The study which aimed to identify the attitudes of community college students towards teaching in Jordan, concluded that:

- the attitudes of the community college students towards teaching were positive.
- the positive attitudes towards teaching were represented in the social and cultural field and the future career, while the negative attitudes were represented in the economic field.

there were no significant differences regarding the college type and study level at the secondary stage towards teaching. **Khalaf (1990)** carried out a study with the title of (The Attitudes of Teacher-Students at the College of Education/ Abha towards Teaching). The study aimed to identify the attitudes of teacher-Students at the College of Education/ Abha towards Teaching, to identify the attitudes of teacher – students at the 1<sup>st</sup> level when joining the college, and the 4<sup>th</sup> level, and to identify the range of change in attitudes towards teaching. The study had the following results: following results:-

- The attitudes of the College of Education students towards teaching were positive.
- The attitudes of the 4<sup>th</sup> level were higher than the attitudes of the 1<sup>st</sup> level.
- Al-Maqoosi & Sha'wan (1991) carried out a study with the title of (Building and validating a Scale of students' attitudes towards teaching). This study aimed to build and validate a scale to measure the attitudes of novice students who joined the Colleges of Education towards teaching. The results of thses studies are:
- Building and validating a scale to measure the attitudes of novice students who like to join the Colleges of Education at Saudi Arabia towards teaching. The scale consisted of (56) paragraphs distributed on three dimensions: vocational, social and economic.
- Validating the scale through following scientific approach. The scale

obtained an appropriate reliability factor.

Al-Taher (1991) conducted a study with the title of "Attitude towards teaching and their relation to some of the study academic variables among the students of the College of Education." This study aimed to investigate the attitudes towards teaching and their relation to the study level, specialization and achievement among the students of the College of Education at King Saud University/Riyadh. The study used the scale of

"teachers' attitudes towards teaching" which was applied on (603) students from the College of Education in different specializations including Mathematics. The study concluded that there were significant differences among the sample subjects' attitudes according to the study level, specialization and achievement for the 1<sup>st</sup> and 4<sup>th</sup> levels in its two literary and scientific streams. Nevertheless, the results showed that there were no scientific streams. Nevertheless, the results showed that there were no significant relationship between the attitudes of the 1s and 4th level in its literary and scientific streams and their achievement. **Al-Manoufi** (1991) conducted a study with the title "The role of the colleges of education in developing positive attitudes towards teaching among their students." This study aimed to identify the role of the colleges of education/ Egypt in developing positive attitudes towards teaching among their students. The study concluded with the following results:

- The attitudes of the fourth level towards teaching were not positive.

  There were significant differences between the first party students and the fourth party students in their attitudes towards teaching for the benefit of the first party.

Bashai (1993) carried out a study with the title "Psychological attitudes of the basic teaching students towards teaching and their relation with psychological adjustment." The study aimed to identify the attitudes of the students of the basic teaching section of the college of education/ Souhaj/ Egypt towards teaching, and to identify the influence of gender, party variables towards teaching. The study concluded with the following results:

- The attitudes of the basic education section towards teaching are negative in general.
- There were significant differences at the level of (0.01) between the male and female students in attitude towards teaching for the benefit of female students.
- There were significant differences at the level of (0.01) between the male and female students in attitudes towards teaching for the benefit of the first party.

- 60% of the educational process success lies on the teacher.

Abdul-Haqq(1996) conducted a study with the title of (Educational Psychological Attitudes towards Teaching among the College of Education/King Faisal University/Saudi Arabia). The study aimed to measure educational psychological attitudes towards teaching among the college of education. The study had the following results:

The attitudes of the College of Education students towards teaching

- are positive in general.
- There were no differences in the attitudes of students regarding the difference in the educational and professional preparation level.

There was no significant impact of the gender variable on their attitude towards teaching.

Ja'nini (1999) conducted a study with the title "The Attitudes of the College of Educational Science students at the University of Jordan towards teaching." The study aimed to identify the attitudes of the Faculty of Educational Science students at the University of Jordan towards teaching. The study had the following results:

- There was a positive attitude towards teaching.

  There were no significant differences at the level of (0.05) in attitudes towards teaching that can be ascribed to the variables of the study level, secondary school average or residential location.
- There were significant differences at the level of (0.05) between male and female students at the college for the benefit of females in their attitudes towards teaching.

Nasser (1999) conducted a study with the title "The Relation between the Attitudes towards Mathematics and Achievement among the 10<sup>th</sup>Grade Students at Toulkarem Governorate." The study aimed to identify the relation between the attitudes of the 10<sup>th</sup> grade students and their achievement in mathematics. The study sample consisted of (193) male students and (195) female students that the scale of attitudes towards mathematics, prepared by the researcher, was applied on. The study showed that there were significant differences in attitudes and the achievement of students of high, medium and low achievement. The study recommended the necessity of making remedial programs to address the negative attitudes among students towards mathematics. **Kyriacou & Cuolthard (2000)** conducted a study aimed to investigate the opinions of the students at conducted a study aimed to investigate the opinions of the students at University of York about choosing teaching as a profession in their scientific life. The study sample consisted of 298 students. They were asked to order the factors prepared by the two researchers in a questionnaire consisting of 20 factors affecting the choice of teaching as profession according to their importance. The most important results were: most of the study sample chose the factor (teaching is an interesting profession) as the most influential factor in choosing teaching as a profession, followed by the factor (teaching is a profession that gives me a role in society services), and then the factor (good initial salary) as the least influential factors in choosing teaching as a profession. Al-Aklabi (2001) conducted a study with the title "The attitudes of the educational supervisors at the Eastern Region of Saudi Arabia towards teaching." The study aimed to identify the attitudes of the educational supervisors towards teaching, to identify the role of the scientific and professional preparation and the acquired experience in developing supervisors' acquiring positive attitudes towards teaching, and to compare the attitudes towards teaching among male and female educational

supervisors, with the aim of identifying the influence of the gender variable on the attitude towards teaching. The study had the following results:

- Educational supervisors' attitudes towards teaching were positive.

- Educational supervisors' attitudes towards teaching were not influenced by any of the variables included in the study.

- Al-Amaireh (2004) conducted a study with the title "The attitudes of the students of the Educational University Colleges of UNRWA / Jordan towards Teaching." The study aimed to identify the attitudes of the students of the Educational University Colleges of UNRWA towards teaching, and to know whether there were any influences of the gender and educational level variables on students' attitudes towards teaching. The study had the following results: following results:

- The attitudes of the students of the Educational University Colleges are somehow positive towards teaching.

There were no significant differences at the level of (0.05) for the two study variables in attitude towards teaching.

Hadi & Murad (2005) carried out a study with the title "Predicting Academic Achievement of Teacher- Students through their Attitudes towards Teaching, their Emotional Stability and Secondary Achievement." The study aimed to develop the scale of attitudes towards teaching and emotional stability at Kuwait University, and to identify their contribution in predicting the academic performance of the teacher- student. The results of this study are:

- There is no difference between male and female in the attitude
- degrees towards teaching and emotional stability.

  The degrees of the relation of the attitude towards teaching and emotional stability were high.

Study Method and Procedures

The study followed the descriptive statistics which is known as the science that can scientifically infer facts from figures, and cares about collecting data to summarize and display it. The research depended on the descriptive approach which is known as being one of scientific methodology that depends on studying reality and describing it accurately and qualitatively and quantitatively, expressing it by using the following scientific research steps: feeling the problem, specifying the problem, setting hypotheses, testing hypotheses, selecting a sample, selecting research tools, collecting data, arriving at the results, analyzing and interpreting results (Ebeidat, 2012) 2012).

# **Study Population**

The study population consisted of the female students of the College of Education at Jubail/ 6<sup>th</sup> and 7<sup>th</sup> level, represented by the athematics Section who studied "Mathematics Methodology" and "Design and Develop Mathematics Lessons" courses as they are two educational courses for mathematics specialization. The total number was (52) students, and the students of the Special Education Section/7<sup>th</sup> level who studied "Mathematics for Special Education Teachers" as they are two educational courses for mathematics specialization as a specialized mathematical educational course. Their total number was (232) students.

# **Study Sample**

The study sample that was randomly selected from the students of the Mathematics section who studied the course "Mathematics Methodology"/6<sup>th</sup> level and the course "Design and Develop Mathematics Lessons" /7<sup>th</sup> level for the scholastic year 1435/1436h with the total number of (28). As for the students of the Special Education, they were selected from those who studied "Mathematicsfor the Special Education Teacher"/ 7<sup>th</sup> level for the scholastic year 1435/1436h with a total number of (45).

### Variable Control

The research included an independent variable which is the attitudes towards teaching, and the dependent variable which is the achievement in the educational mathematics courses.

### **Study Instruments**

The study instrument consisted of the scale of the attitude towards teaching which was taken from the study of Ahmad Hussein, with the title "The Attitudes of Imam Muhammad bin Saud Islamic University towards Teaching." The instrument consisted of (32) paragraphs with a five-point rating (strongly agree, agree, do not know, disagree, and strongly disagree) 12 paragraphs were negative, 20 paragraphs were positive. Therefore, the degrees are estimated (1,2,3,4,5) for the positive paragraphs, and (5,4,3,2,1) for the negative paragraphs. This was extracted from a peer-reviewed periodical of the Saudi Educational and Psychological Mission, issued by the Saudi Educational and Psychological Association, No.35/2010, from the study of Ahmad Al-Hussein with the title "The Attitudes of the students of Imam Muhammad bin Saud Islamic University towards Teaching" with a minor modification on the paragraphs No.(21,22,23, 24, 25,26,27,28). The study depended on the distribution of the following estimates to classify and analyze the results of the statistical treatment of the means of the attitudes, achievement means of the study sample at the educational mathematics

specialization courses, and Pearson correlation co-efficient between the variables of attitudes towards teaching as the study's independent variable and achievement in the educational mathematics specialization courses as a dependent variable:

| Attitudas Maons                                    | Grade             | 4.5-5        | 4-4.4   | 3.5-3.9 | 3-3.4  | Less<br>than   |
|--|-------------------|--------------|---|---------|--------|----------------|
| Attitudes Means                                    | Degree<br>feature | Very<br>high | High  | medium  | low    | Weak           |
| Means of achievement at the                        | Grade             | 90-100       | 80-89   | 70-79   | 60-69  | Less<br>than60 |
| specialized<br>mathematical<br>educational courses | Degree<br>feature | excellent    | Very<br>good  | good    | medium | weak           |
| Correlation  | Strong            |              | $-0.7 \le R \le -1 \text{ or } 0.7 \le R \le 1$     |         |        | ' ≤ 1          |
| Coefficient Value                                  | Medium            |              | $-0.3 \le R \le -0.7 \text{ or } 0.3 \le R \le 0.7$ |         |        |                |
| R  | Wea               | ak           | $-0.3 \le R \le 0.3$                                |         |        |                |

Validity and Reliability of the study instruments The study depended on the reviewers' validity, by showing the instrument to specialized reviewers of Education, Psychology, Curricula and Methodology. As for the reliability of the study instruments, the co-efficient factor (Chronbach- $\alpha$ ) was used with (0.073) of the study instrument scale related to measuring attitudes towards teaching. This value is adequate for the purposes of the research study.

# **Statistical Approach**

The study depended on the statistical treatment of the mathematical means, and standard deviations in order to identify the common attitudes among the study subject towards teaching. Afterwards, Pearson co-efficient was calculated among the mathematical means of the attitudes of the study sample towards teaching and their achievement in the mathematics specialization of educational preparation: "Mathematics courses specialization courses of educational preparation: "Mathematics Methodology", and "Design and develop Mathematics Lessons" each with attitudes' means and the achievement results of each study sample for the Mathematics Section female students, and by calculating Pearson correlation co-efficient among the mathematical means of the attitudes of the study sample towards teaching and the achievement of each study subject in the course Mathematics for Special Education teachers, for the female students of Special Education Department. The regression analysis was calculated, and ANOVA analysis was used to identify the relationship between the common attitudes among the study subjects towards teaching as an independent variable, and their achievement in the mathematics specialization courses of educational preparation as a dependent variable specialization courses of educational preparation as a dependent variable.

#### **Results and Discussion**

The study aimed to identify the relationship between the attitudes of the study sample subjects towards teaching, and their achievement at the specialized mathematical courses of educational preparation, Mathematics and Special Education, through answering the following main question: ((What is the relationship of the attitudes of the teacher-students at Mathematics and Special Education at the College of Education/the University of Dammam towards teaching with their achievement at the specialized mathematical courses of educational preparation?)). The study results are as follows:

### **First: Results of the First Question**

'What are the attitudes of the teacher- students of Mathematics and Special Education specialization at the College of Education- the University of Dammam towards teaching?"

Table (1): Means and Standard Deviations of the responses of the study sample specializing in Mathematics on the scale of Attitudes towards Teaching

in Mathematics on the scale of Attitudes towards Teaching

| Que | estionnaire<br>Para. | 1       | 2       | 3       | 4        | 5       | 6       | 7       | 8       |
|-----|----------------------|---------|---------|---------|----------|---------|---------|---------|---------|
| No. | Response             | 28      | 28      | 28      | 28       | 28      | 28      | 28      | 28      |
|     | Non-<br>response     | 0       | 0       | 0       | 0        | 0       | 0       | 0       | 0       |
|     | Mean                 | 4.5357  | 4.4286  | 4.0000  | 2.4286   | 3.8214  | 3.9286  | 4.4643  | 4.1429  |
|     | tandard<br>eviation  | 0.57620 | 0.57275 | 0.72008 | 1.34519  | 0.72283 | 0.76636 | 0.69293 | 0.65060 |
| Que | estionnaire<br>Para. | 9       | 10      | 11      | 12       | 13      | 14      | 15      | 16      |
|     | Mean                 | 3.2857  | 3.1786  | 4.6786  | 3.2500   | 3.2857  | 3.2143  | 1.8214  | 2.2143  |
|     | tandard<br>eviation  | 1.2429  | 1.30678 | 0.54796 | 1.007583 | 1.18187 | 0.95674 | 1.09048 | 1.19744 |
| Que | estionnaire<br>Para. | 17      | 18      | 19      | 20       | 21      | 22      | 23      | 24      |
|     | Mean                 | 4.6429  | 4.1786  | 4.3929  | 2.2500   | 3.7500  | 3.7143  | 3.6786  | 4.0714  |
|     | tandard<br>eviation  | 0.55872 | 0.81892 | 0.62889 | 1.07583  | 0.84437 | 1.04906 | 0.86297 | 0.81325 |
| _   | estionnaire<br>Para. | 25      | 26      | 27      | 28       | 29      | 30      | 31      | 32      |
|     | Mean                 | 4.3214  | 3.1071  | 4.2857  | 4.0714   | 4.8214  | 4.1429  | 3.4643  | 4.5714  |
|     | tandard<br>eviation  | 1.09048 | 1.25725 | 0.89679 | 1.21499  | 0.39002 | 0.93152 | 1.37389 | 0.69007 |

Table (2): Means and Standard Deviations of the study sample response specializing in Special Education in the scale of "Attitudes towards Teaching"

| Special Education in the scale of Attitudes towards Teaching |            |        |        |        |        |        |        | , ,    |        |
|--|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Que  | stionnaire | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|  | para.      |        |        |        |        |        |        |        |        |
| No   | Respons    | 45     | 45     | 45     | 45     | 45     | 45     | 45     | 45     |
|  | es         |        |        |        |        |        |        |        |        |
|  | No         | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
|  | response   |        |        |        |        |        |        |        |        |
| ]  | Means      | 4.7333 | 4.2889 | 4.1111 | 2.0222 | 4.0222 | 3.8889 | 4.6444 | 4.0889 |
| S  | tandard    | 0.5393 | 0.8152 | 0.8846 | 0.9883 | 0.8115 | 0.8847 | 0.7732 | 0.9492 |
| D  | eviation   | 6      | 6      | 8      | 2      | 3      | 8      | 9      | 2      |
| Que  | stionnaire | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|  | Para.      |        |        |        |        |        |        |        |        |
| ]  | Means      | 3.0222 | 3.2444 | 4.7556 | 3.9333 | 3.4444 | 3.4444 | 1.7111 | 2.2667 |
| S  | tandard    | 1.3732 | 1.1110 | 0.6451 | 0.8893 | 1.1590 | 1.0986 | 0.9913 | 1.2685 |
| D  | eviation   | 7      | 1      | 1      | 3      | 7      | 7      | 8      | 0      |
| Que  | stionnaire | 17     | 18     | 19     | 20     | 21     | 22     | 23     | 24     |
|  | Para.      |        |        |        |        |        |        |        |        |
| ]  | Means      | 4.7111 | 4.1111 | 4.5111 | 2.5778 | 3.3778 | 3.2222 | 4.0667 | 3.9333 |
| S  | tandard    | 0.5055 | 0.8847 | 0.5486 | 1.1772 | 1.1538 | 1.0200 | 0.8090 | 0.9145 |
| D  | eviation   | 3      | 8      | 4      | 2      | 3      | 0      | 4      | 3      |
| Que  | stionnaire | 25     | 26     | 27     | 28     | 29     | 30     | 31     | 32     |
|  | Para.      |        |        |        |        |        |        |        |        |
| ]  | Means      | 3.8000 | 3.0000 | 3.2889 | 3.8889 | 4.5778 | 4.2222 | 3.7111 | 4.3333 |
| S  | tandard    | 1.0787 | 1.1870 | 0.9913 | 1.2102 | 0.6567 | 0.9266 | 1.2902 | 1.0444 |
| D  | eviation   | 2      | 5      | 8      | 3      | 4      | 0      | 1      | 7      |

The attitudes of the teacher-students specialized in Mathematics towards teaching (table (1) varied greatly with very high means for paragraphs (1, 7, 11, 17, 29, 32) and high for paragraphs (2, 3, 8, 18, 19, 24, 25, 27, 28, 30) and moderate for paragraphs (5, 6, 2 1, 22, 23, 31), and low for the paragraphs (9,10,12,13,14,26) and was weak for the paragraphs(4, 15, 16, 20). The attitude of the teacher-students specialized in Special Education(table (2) varied greatly with very high means for the paragraphs(1, 7, 11, 17, 19, 29) and high for paragraphs (2, 3, 5, 8, 18, 23, 30, 32) and moderate for paragraphs(6,12,24,25,28,31), low for the paragraphs (9, 10, 13, 14, 21, 22, 26, 27) and was weak for the paragraphs (4,15,16,20). The study subjects inclined towards teaching because they consider it as a way to be near to God, because it is one of the most honorable and noble professions. Whoever adopts such career is participating in building up their homeland. This made them eager to participate in providing their homeland with sufficient national teachers. Local learners deserve help. At the same time, teaching nowadays is commanding more importance than before. The study sample inclined towards the belief that they enjoy being teachers and are so eager to talk to learners. Teaching profession helps them in forming relationships, and whoever adopts such career wins the respect of all. They realize the future vital role of teachers.

Mathematics teachers feel a high degree of happiness because the practical education course goes on all through the semester, while the Special Education students feel a moderate degree of happiness regarding that. Their attitudes ranged between moderate and low, when they expressed their abilities of communication skills according to the study sample of the Mathematics students, but for a high degree for the Special Education students. They are inclined to say that such profession is appropriate for their abilities and that they get high returns from such profession that they like because of the great number of annual leave period, in addition to the possibility of getting an annual promotion. They prefer to work at a confined environment like schools, but they do not approve to work at a private school before joining the public school, and that if it was up to them, they would not have chosen teaching as a profession. The study subjects in both parts agreed to a weak degree that working outside their favorite city is a repellent factor. The study instrument paragraphs related to the specialized mathematical educational courses were moderate, and low for the mathematics study subjects and the Special Education study samples respectively. Their attitude was that such profession was boring while helping them to transplant Islamic values, that they wish the university increases the number of the specialization courses at the university level, and that they represent economic waste, with a high degree among the Special Education subjects, and a medium degree among the Mathematics subjects. The attitudes varied to a high degree among the Mathematics subjects who do not have a sense of benefit when studying them although they are inclined to keep the textbooks of such courses since such courses help them in finding a job.

Second: Results of Question 2: "What is the range of correlation of

- **Second: Results of Question 2**: "What is the range of correlation of the attitudes of Mathematics and Special Education student-teachers at the College of Education/University of Dammam towards teaching and their relationship to their achievement in the specialized mathematical educational?"

Table (3): Means and Standard Deviation of the attitudes variable for each subject specializing in Mathematics and Special Education at the College of Education towards teaching and the variable of achievement at the specialized mathematical educational

| (Mathematics Methodology) course |   |                             |             |  |  |  |  |  |
|----------------------------------|---|-----------------------------|-------------|--|--|--|--|--|
| Study subjects No.               | Standard Deviation                                  | Means                       |             |  |  |  |  |  |
| 28                               | 7.50969   | 77.8929                     | Achievement |  |  |  |  |  |
| 28                               | 0.31796   | 3.7536                      | Attitude    |  |  |  |  |  |
|                                  | (Design &Develop Math                               | nematical Lessons) cou      | rse         |  |  |  |  |  |
| 28                               | 3.24873   | 92.5357                     | Achievement |  |  |  |  |  |
| 28                               | 0.31796   | 3.7536                      | Attitude    |  |  |  |  |  |
| (1                               | (Mathematics for Special Education Teachers) course |                             |             |  |  |  |  |  |
| 45                               | 6.03927   | 6.03927 80.9333 Achievement |             |  |  |  |  |  |
| 45                               | 0.32794   | 3.7200                      | Attitude    |  |  |  |  |  |

Through using SPSS, the means and standard deviations of the study variables for Mathematics and Special Education were calculated. The means and standard deviations varied (table3) for the variable of the attitude of each study subject specializing in Mathematics and Special Education towards teaching, and for the achievement in the specialized mathematical, educational courses variable. The means of the Mathematics students' achievement in Mathematics Methodology was (77.9), which is a good value and meets the means of their attitudes (3.8) which is estimated as medium according to the degrees table and adopting the feature at this study. The means of the Mathematic students achievement in Design and Develop Mathematics lessons was (92.5), which is an excellent value, while the means of their attitudes was (3.8) which is estimated as medium. The means of the Special Education students' achievement in Mathematics for Special Education Teachers was (80.9), which is a very good value while the means of their attitudes was (3.7), which is estimated as medium.

Table (4): Correlation Coefficient between the variable of the attitudes of the study subjects specializing in mathematics and the variable of achievement in the specialized mathematical educational courses

|           | Correlations                     |                         |                     |  |  |  |  |  |
|-----------|----------------------------------|-------------------------|---------------------|--|--|--|--|--|
|           | (Mathematics Methodology) course |                         |                     |  |  |  |  |  |
| Attitudes | Achievement                      |                         |                     |  |  |  |  |  |
| 0.075     | 1.000                            | Achievement             | Pearson Correlation |  |  |  |  |  |
| 1.000     | 0.075                            | Attitudes               | Coefficient         |  |  |  |  |  |
| 0.351     |                                  | Achievement             | Sig. (1-tailed)     |  |  |  |  |  |
|           | 0.351                            | Attitudes               |                     |  |  |  |  |  |
|           | (Develop and Design Ma           | thematics Lessons)Cour  | se                  |  |  |  |  |  |
| -0.212    | 1.000                            | Achievement             | Pearson Correlation |  |  |  |  |  |
| 1.000     | -0.212                           | Attitudes               | Coefficient         |  |  |  |  |  |
| 0.140     | •                                | Achievement             | Sig. (1-tailed)     |  |  |  |  |  |
|           | 0.140                            | Attitudes               |                     |  |  |  |  |  |
|           | (Mathematics for Special l       | Education Teachers) Cou | irse                |  |  |  |  |  |
| 0.168     | 1.000                            | Achievement             | Pearson Correlation |  |  |  |  |  |
| 1.000     | 0.168                            | Attitudes               | Coefficient         |  |  |  |  |  |
| 0.135     | •                                | Achievement             | Sig. (1-tailed)     |  |  |  |  |  |
| 0         | 0.135                            | Attitudes               |                     |  |  |  |  |  |

The correlation co-efficient for the variable of the attitude of each study subject specialized in Mathematics and Education towards teaching, and for the achievement in the educational courses variable was (.075), which is a weak value according to the degrees table while adopting such feature at this study. The correlation coefficient of the Mathematic students achievement in Design and Develop Mathematics Lessons was (-.212), which is a weak value. The correlation coefficient of the Special Education students' achievement in Mathematics for Special Education Teachers was (.135), which is also a weak value.

Table (5): Regression Analysis Summary

| Mathematics Methodology                    |             |                       |           |       |  |  |  |  |
|--|-------------|-----------------------|-----------|-------|--|--|--|--|
| Estimated Error                            | Adjusted R  | R Square              | R         | Model |  |  |  |  |
|  | Square      |                       |           |       |  |  |  |  |
| 7.63097                                    | -0.033      | 0.006                 | 0.075a    | 1     |  |  |  |  |
|  | Design & De | evelop Mathematic     | s Lessons |       |  |  |  |  |
| 3.23560                                    | 0.008       | 0.045                 | 0.212a    | 1     |  |  |  |  |
| Mathematics for Special Education Teachers |             |                       |           |       |  |  |  |  |
| 6.02202                                    | 0.006       | 0.028                 | 0.168a    | 1     |  |  |  |  |
|  | Predict     | ors: (Constant), atti | tude      |       |  |  |  |  |

Table (6): Regression variance analysis, R square test of the variable of the attitudes of the study subjects specializing in mathematics and the variable of achievement in the specialized mathematical educational courses

| ANOVA <sup>b</sup>         |                                  |                 |                 |               |         |        |  |  |  |
|----------------------------|----------------------------------|-----------------|-----------------|---------------|---------|--------|--|--|--|
| Mathematics Methodology    |                                  |                 |                 |               |         |        |  |  |  |
|                            | Model                            | Square total    | Freedom         | Square        | Freedom | Sig.   |  |  |  |
|                            |                                  |                 | degree          | means         |         |        |  |  |  |
| 1                          | Regression                       | 8.656           | 1               | 8.656         | 0.149   | 0.703ª |  |  |  |
|                            | Residual                         | 1514.023        | 26              | 58.232        |         |        |  |  |  |
|                            | Total                            | 1522.679        | 27              |               |         |        |  |  |  |
|                            |                                  | Design & De     | velop Mathem    | atics Lessons | ı.      |        |  |  |  |
| 1                          | Regression                       | 12.768          | 1               | 12.768        | 1.220   | 0.280a |  |  |  |
|                            | Residual                         | 272.196         | 26              | 10.469        |         |        |  |  |  |
|                            | Total                            | 284.964         | 27              |               |         |        |  |  |  |
|                            |                                  | Mathematics for | or Special Educ | cation Teache | ers     |        |  |  |  |
| 1                          | Regression                       | 45.417          | 1               | 45.417        | 1.252   | 0.269a |  |  |  |
|                            | Residual                         | 1559.383        | 43              | 36.265        |         |        |  |  |  |
|                            | Total                            | 1604.800        | 44              |               |         |        |  |  |  |
|                            | Predictors: (Constant), attitude |                 |                 |               |         |        |  |  |  |
| Dependent Variable: degree |                                  |                 |                 |               |         |        |  |  |  |

Table (7): Results of regression analysis of the variable of the attitudes of the study subjects specializing in mathematics towards teaching and the variable of achievement in the specialized mathematical educational courses

|       | Specialized manifestational courses                        |                     |                 |                 |               |   |  |  |
|-------|--|---------------------|-----------------|-----------------|---------------|---|--|--|
|       | Coefficients <sup>a</sup>                                  |                     |                 |                 |               |   |  |  |
|       | Mathematics Methodology (Degree = 1.781* Attitude + 71.209 |                     |                 |                 |               |   |  |  |
| Sig.  | T  | with                | Unstandardize   | ed Coefficients | Mode          | 1 |  |  |
|       |  | Beta                | Std. Error      | В               |               |   |  |  |
| 0.000 | 4.093  |                     | 17.397          | 71.209          | (constant)    | 1 |  |  |
| 0.703 | 0.386  | 0.075               | 4.619           | 4.619 1.781     |               |   |  |  |
| (De   | egree = 1.781  | *Attitude +71.209)  | Design and pl   | an a mathema    | tical lesson  |   |  |  |
| 0.000 | 13.645   |                     | 7.376           | 100.654         | (constant)    | 1 |  |  |
| 0.280 | -1.104   | -0.212              | 1.958           | -2.163          | Attitude      |   |  |  |
| (Degr | ee = 3.098*A   | ttitude + 69.409)Ma | thematics for   | Special educa   | tion teachers | ( |  |  |
| 0.000 | 6.714  |                     | 10.337 69.409 ( |                 | (constant)    | 1 |  |  |
| 0.269 |  |                     |                 |                 |               |   |  |  |
|       |  | Dependent V         | ariable: degre  | ee              |               |   |  |  |

The Correlation co-efficient of the two variables (table 5), was calculated to be (.75<sup>a</sup>) for the two study variables of Mathematics Methodology, and was (-.212 a ) for the Design and Develop Mathematics lessons, while it was (.168<sup>a</sup>) for Mathematics for Special Education Teachers. This indicates that the relationship between the attitudes of the study samples towards teaching and their achievement in such courses was positive, which means that the positive attitudes towards teaching increase students' achievements at such mathematics specialized educational courses. R square was calculated and was (.006), (.045), (.028) for the Mathematics Methodology, and Design and Develop Mathematics lessons and Mathematics for Special Education Teachers respectively. These values indicate the ability of the attitudes towards teaching in predicting achievement in educational courses which are R square in this case. The significance of that variance showed in the table through F test, which showed values indicate the ability of the attitudes towards teaching in predicting achievement in educational courses was statistically acceptable. F values of (.149), (1.220), (1.252) have a significance at the level (.703<sup>a</sup>), ( (.280<sup>a</sup>)( (.269<sup>a</sup>) for the three courses respectively. Table (7) shows regression equation for each of the three educational specialization courses, through which the subject achievement degree can be calculated if the means is known for the attitude towards mathematics, or the means for their attitudes can be calculated if their achievement in the courses is known.

Figure (1): Scatter plot between the variable of the attitudes of the study subjects specializing in Mathematics towards teaching and their achievement in the specialized mathematical educational courses (Mathematics Methodology)

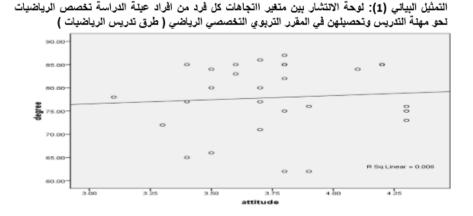


Figure 2: Scatter plot between the variable of the attitudes of the study subjects specializing in Mathematics towards teaching and their achievement in the specialized mathematical educational courses (Design and develop Mathematics lessons)

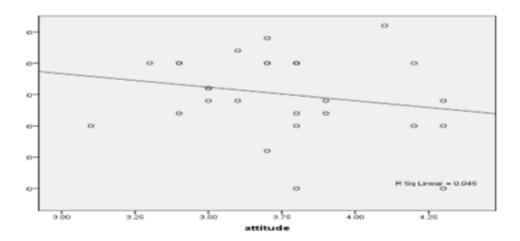
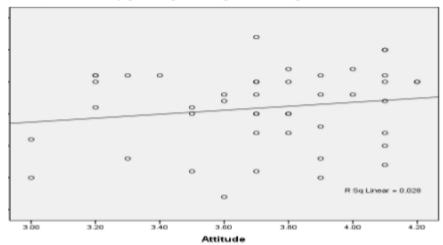


Figure (3): Scatter plot between the variable of the attitudes of the study subjects specializing in Mathematics towards teaching and their achievement in the specialized mathematical educational courses (Mathematics for Special Education Teachers)

التمثيل البياتي (3): لوحة الانتشار بين متغير ااتجاهات كل فرد من افراد عينة الدراسة تخصص الـ نحو مهنة التدريس وتحصيلهن في المقرر التربوي التخصصي الرياضي ( الرياضيات لمعلم التربية



The scatter plot of the two study variables through charts (1) and (3) shows an ascending positive relationship between the two study variables for the regression line. Most of the points are centered around the regression line which shows that the attitudes towards teaching predicts achievement in the specialized mathematical educational courses for each of Mathematical

Methodology, and Mathematics for Special education teachers. In the scatter plot (2) for the Design and Develop Mathematics lessons, the regression line shows a descending relation (negative correlation) between the attitudes towards teaching and achievement in that course. In addition, the points are centered around the regression line which shows the ability of the independent variable (attitudes) of predicting the dependent variable (achievement), even though the correlation coefficient between the two study variables was week. Attitudes towards teaching according to the statistical treatment are related, though weakly, to female students' achievement from the department of Mathematics and Special Education. The high attitudes towards teaching, in some of the attitudes paragraphs, indicated that the weakness of such correlation is ascribed to the nature of each attitude to which the study subjects are inclined. In the mathematics study subjects who took two specialized mathematical educational courses, and the Special Education study subjects who took Mathematics for Special Education teachers, the weak correlation is attributed to students' attitudes towards teaching, of their desire to work at confined environments such as schools, teaching, of their desire to work at confined environments such as schools, and that they do not like to work at private schools which they may inevitably work at, since working in the Public Sector requires a number of years of waiting after their graduation, and that they don't think that such profession provides high returns. In fact, their waiting for the civil service decisions to get a job is considered a barrier to their progress. In addition, working in a city they prefer is considered a repellent factor for teaching profession. As for the attitude paragraphs relating to the educational courses, they do not prefer increasing the number of specialized mathematical educational courses because they do not have a sense of purpose when studying them although they are inclined to keep the textbooks of such courses, since such courses help them in finding a job. The attitudes that are concerned with specialized mathematical educational courses may cause high achievement for them. As for The Special Education study subjects, the high achievement for them. As for The Special Education study subjects, the attitude of their considering teaching a tough career, they do not care so much for the educational preparation courses, especially the mathematics ones. The Special Education study subjects are from the literary stream, especially that they consider such courses an economical waste since they do not feel that they benefit from them and so they keep the textbooks of such courses and do not wish to increase such university courses since they do not halve them in finding a job. The results coursely dead that the attitudes towards help them in finding a job. The results concluded that the attitudes towards teaching according to the statistical treatments have a relationship with Mathematics and Special Education students in the specialized mathematical educational courses, although it is a weak correlation. The weakness of the correlation is ascribed to the weakness of some of their attitudes as shown from their response to the questionnaire paragraphs. This requires fostering and developing students' attitudes towards teaching, which helps in raising their achievement in the specialized mathematical educational courses.

### Recommendations

- 1. Carry out more research on the attitudes of teacher-students towards teaching, and their relation to the specialized educational preparation courses for other specializations in the Colleges of Education other than mathematics and Special Education.
- 2. The necessity of the educators at the Colleges of Education considering the importance of fostering attitudes towards teaching, since they increase achievement in educational courses in particular and in the academic courses in general.

#### References:

### **Arabic References:**

- Al-Azhari, Muna. Attitudes of the College of Education at Al-Rass Towards Teaching, Educational Studies, Volume 5(21). (1989).
   Al-Aklabi, Fahd. The attitudes of the Educational Supervisors towards Teaching, Educational Journal, University of Kuwait, Vo.15 (59). (2001).
- 3. Bashai, Shanoudeh. Psychological Attitudes of the Basic Teaching Students towards Teaching and their Relation with Psychological Adjustment. College of Education Journal, Assiut University (9). (1993).
- Ja'anini, Na'em. Attitudes of the Faculty of Educational Science at the University of Jordan towards Teaching, College of Education Journal, Assiut University (15). (1999g). Al-Jamal, Najah. The Effect of Studying at the Faculty of Education at the University of Jordan on its students' attitudes towards Teaching, Journal of the College of Education Studies, King Saud University, Riyadh. (1983g). Jensen, Eric. Super Teaching, Riyadh, Jarir Library. (2007g). Khalaf, Yahia The Attitudes of Teacher-Students at the College of Education/Abha towards Teaching, a study submitted to the 2<sup>nd</sup> conference of teacher. Preparation: accumulations, and challenges. 15-18 teacher preparation: accumulations and challenges 15-18 July,1999. The Egyptian Society for curricula and methodology, Alexandria. (1999g).
- 5. Al-Khawaldeh, Muhammad Mahmoud (2007g ) **Basics of Constructing Educational Syllabuses and Designing a Textbok**, 2<sup>nd</sup> ed., Amman: Dar Al- Massira for Publishing, Printing and Distribution.
- 6. Raslan, Othman. Teachers' Constitution. Tanta, Dar Al-Bashir for science and Culture.

- Al-Zayyat, Maher & Muhammad Qattawi (2010g). The Nature of Social Studies, ways of teaching and learning them, Amman: Dar-Al-Thaqafah for publishing and Distribution. (1420h).
   Al-Sayyed, Abdul-Halim et al.. Social Psychology, Cairo: Dar Aton
- for Publishing. (1989g).
- Shahin, Tawfiq The Attitudes of Community College Students towards Teaching in Jordan, Unpublished MA Study, University of Jordan. (1990g).

  10. Sawafteh, Walid& Ahmad Khalfah . The Relevance of a Teacher
- Preparation Program at the Teacher College of Tabouk University for the Requirements of a science teacher and the effect of some variable. The Arabic Gulf Journal, Riyahd, 30th year(114). (2009g)
- 11. Al-Taher, Mahdi . Attitudes towards Teaching and their relation with some of the Academic Study Variable among the Students of the College of Education.MA thesis, King Saud University, Riyadh. (1991).
- 12. Abdul-Haqq, Iman. Psychological and Educational Attitudes towards Teaching among the students of the College of Education at King Saud University. The College of Education Journal, Banha, Egypt(23). (1996g).
- 13. Al-Obaidi, Saleh . The Attitudes of the Scientific departments at the colleges of Education at Iraqi Universities towards Teaching, the Journal of Educational and Psychological Sciences. (1987g).
- 14. Al-Amaireh, Muhammad. The Attitudes of the students of the Educational Sciences university College-UNRWA-Jordan Towards A Teaching Profession, Educational Research Journal, Qatar University.13<sup>th</sup> year(25). (2004g).

  Al-Omar, Abdul-Aziz.Educators' language.Riyadh, Arabic
- 15. Al-Omar. Educational Office of the Gulf Country. (1428h).
- 16. Ebeidat, Thougan; Abdul-Haqq, Kayed; Adas Abdul-Rhaman. Scientific Research: Concepts, tools and techniques, 14<sup>th</sup>ed., Amman:Dar Al-Fikr. (2012).
- 17. Omar, Mahmoud Ahmad al.,. et **Educational** Psychometrics, Amman, Dar Al -Massira for Publishing, Printing and Distribution. (2010).
- **Contemporary Social** 18. Al-Enezi, Falah . Introduction to Psychology, Riyadh: Madad Press.
- 19. Al-Kathiri, Rashed&SalehNassar (1430h)Introduction to **Teaching**, 2<sup>nd</sup>ed., Riyadh. (1419h).
- 20. Muhammad, Rae'da. Mathematics: Syllabuses, Methodology and Evaluation Techniques. Dammam: Mutanabi Library. (2011).

- 21. Mukhtar, Hamzah. Basics of Social Pyschology, 2<sup>nd</sup> ed., Jaddah, Al-Bayan Al-Arabi. (1982).
- 22. Al-Maqoushi, Abdalla& Abdul-Rahman Al-Sha'wan . **A Scale for** Students' Attitudes towards Teaching: Construct and Validation,
- Educational Studies, Volume (6)(35). (1991g).

  23. Melhem, Sami. Evaluation and Assessment in Education and Psychology, 4<sup>th</sup> ed., Amman, Dar Al-Massira for Printing, Publishing, and Distribution. (1430h).
- 24. Manoufi, Saed. The Role of the Colleges of Education in Developing Positive Attitudes towards Teaching among their Students, Journal of Educational and Scientific Sciences, Menoufia University, 7<sup>th</sup> year(2). (1991).
- 25. Hadi, Fawzeyyah& Salah Murad.**Predicting Academic** Achievement of Teacher-Students through their Attitudes towards Teaching, Emotional Stability and **Scientific Achievement**, Educational Journal, Kuwait University, Vol. 19(75). (2005g).
- 26. Mansour, Ali:Learning Theories. The Directorate of University Textbooks and Puplications, Tishrin University, Tishrin University Publications, Lattkia, 1421h-2001g. Source: www.zadtrain.com.
  27. Nasser, Husam. The Relationship between Attitudes towards Mathematics and Achievement in it among the 10<sup>th</sup> grade Students of Toulkarem Governorate. MA Research, An-Najjah National University, Nablus, Palestine. (1999).

# **Foreign References:**

- 1. Anastasi, A. Psychological testing Macmillan Publishing Company, 16 the ed. (1988).
- 2. AL Shehe, F. A Study of Male College of Education Students Attitudes Toward Teaching Profession in Saudi Arabia, Ph.D. Florida State University. (1988).
- 3. Derver, J.. A Dictionary of Psychology. London: Penguin Books. 17 the ed. (1975).
- 4. Greed, W.A.. Psychological Foundations of Attitudes, N. Y; Academic Press. (1968).
- 5. Lindzey, Gardner& Other,. Publishing Third Edition. N. Y; Worth Publishers, Inc. (1988).
- 6. Wrightsman&Deaux.. Social Psychology in the 80s Califorkia, Brooks Cole Publishing Company 3, ed. (1981).
- 7. http://kenanaonline.com/users/abbasallam/topics/77582/most\_visited
- 8. retrieved on: 22/3/,2012 12.am

# $9. \ http://www.eric.ed.gov/ERICWebPortal/search/thesaurusSearch.jsp?\\ \_pageLabel=searchthesaurus$

Study Instrument

| Para. | Paragraph  | Completel | Agree  | Don't   | Disagree | Strongly |
|-------|--|-----------|--------|---------|----------|----------|
| No.   |  | y agree)  | rigico | know    | Disagree | disagree |
| 1     | To draw closer to God, seeking                                   | y agree   |        | 1110 11 |          | arougree |
| 1     | reward   |           |        |         |          |          |
| 2     | I enjoy being a teacher  |           |        |         |          |          |
| 3     | I long to talk to students                                       |           |        |         |          |          |
| 4     | Teaching is a tough career                                       |           |        |         |          |          |
| 5     | I have good ability of   |           |        |         |          |          |
|       | communication skills   |           |        |         |          |          |
| 6     | Teaching fits my personal ability                                |           |        |         |          |          |
| 7     | I think that students deserve help                               |           |        |         |          |          |
| 8     | I like teaching because it doesn't                               |           |        |         |          |          |
|       | require extra effort   |           |        |         |          |          |
| 9     | I like to work In confined                                       |           |        |         |          |          |
| 10    | environments such as schools  I don't like to work at a private  |           |        |         |          |          |
| 10    | school before working at a public                                |           |        |         |          |          |
|       | school.  |           |        |         |          |          |
| 11    | Nowadays, teaching has received                                  |           |        |         |          |          |
|       | greater importance   |           |        |         |          |          |
| 12    | Whoever works as a teacher gets                                  |           |        |         |          |          |
| 12    | high returns I like teaching because of the long                 |           |        |         |          |          |
| 13    | annual vocations.  |           |        |         |          |          |
| 14    | I like teaching because of getting                               |           |        |         |          |          |
| 1.    | annual promotions easily and                                     |           |        |         |          |          |
|       | automatically.   |           |        |         |          |          |
| 15    | I am encouraged to be a teacher                                  |           |        |         |          |          |
|       | because the school is close to my house                          |           |        |         |          |          |
| 16    | Waiting for the Decision of the                                  |           |        |         |          |          |
| 10    | Service Bureau to get a job is                                   |           |        |         |          |          |
|       | considered a barrier to progress in                              |           |        |         |          |          |
|       | teaching as a career   |           |        |         |          |          |
| 17    | I consider teaching one of the                                   |           |        |         |          |          |
|       | most honorable and noble   |           |        |         |          |          |
| 18    | professions. Whoever works as a teacher                          |           |        |         |          |          |
| 10    | deserves the respect specialized                                 |           |        |         |          |          |
|       | mathematical educational courses                                 |           |        |         |          |          |
|       | of all.  |           |        |         |          |          |
| 19    | Teaching helps me in forming                                     |           |        |         |          |          |
| 20    | new relations.   |           |        |         |          |          |
| 20    | I consider working out of my favorite city a repellent factor to |           |        |         |          |          |
|       | teaching.  |           |        |         |          |          |
| 21    | I get bored of the specialized                                   |           |        |         |          |          |
|       | mathematical educational courses                                 |           |        |         |          |          |

| 22 | specialized mathematical           |  |  |  |
|----|------------------------------------|--|--|--|
|    | educational courses help me in     |  |  |  |
|    | rooting Islamic values             |  |  |  |
| 23 | Specialized mathematical           |  |  |  |
|    | educational courses represent an   |  |  |  |
|    | economic waste.                    |  |  |  |
| 24 | I don't feel that I benefit from   |  |  |  |
|    | studying specialized               |  |  |  |
|    | mathematical educational courses.  |  |  |  |
| 25 | I keep the specialized             |  |  |  |
|    | mathematical educational           |  |  |  |
|    | textbooks after I end my           |  |  |  |
|    | university education.              |  |  |  |
| 26 | I wish to increase the number of   |  |  |  |
|    | specialized mathematical           |  |  |  |
|    | educational courses at the         |  |  |  |
|    | university level.                  |  |  |  |
| 27 | Specialized mathematical           |  |  |  |
|    | educational courses help me in     |  |  |  |
|    | finding a job.                     |  |  |  |
| 28 | I wish that the practical          |  |  |  |
|    | application of Practical Education |  |  |  |
|    | of Mathematics Methodology         |  |  |  |
|    | covered the whole semester.        |  |  |  |
| 29 | I consider teachers participate in |  |  |  |
|    | building up our hometown.          |  |  |  |
| 30 | I realize teachers' role at future |  |  |  |
| 31 | If it were up to me, I would       |  |  |  |
|    | choose teaching as a career.       |  |  |  |
| 32 | I like to contribute in providing  |  |  |  |
|    | my hometown with the sufficient    |  |  |  |
|    | number of national teachers.       |  |  |  |
|    |                                    |  |  |  |