# A weighted measurement to diagnosed reasons of the low success ratios in mathematic subject for the third intermediate schools among a sample in Iraq

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## Abstract:

*Objective*: **To suggest a weighted measure to diagnose the reasons for the low student success ratios in mathematics concerning the third grade of intermediate schools in light of components educational system represented by: [Students, Teachers, Curriculum, and Environmental reasons (others reasons)] assuming differentiated and interrelated components, Also the effectiveness forming of these components according to the gender variable.**

*Methods*: **Data collection tools were prepared by constructing two questionnaires for each of (Students and Teachers), which included a number of items that involved some domains for studied components of educational system, which demonstrated a high level of validity and reliability in the pilot study, in addition to upgrading the level of accuracy in the formulation and selection of the items of both questionnaires by achieving to high level of agreement and importance for all of its items by supported experts, which reflects the accuracy of the content of the items and themes of the standard prepared for the study of the phenomenon under discussion.**

*Results*: **The weighted scale factors were extracted to diagnose the reasons for the low success ratios of students in mathematics for the third grade average according to the basic compounds method in the global analysis, and these factors were re-extracted by gender variable classification.**

*Conclusions*: **The results of the global analysis demonstrated the high level of saturation and overlapping objective and subjective reasons in its interpretation of the interrelated connections resulting from the reasons for diagnosing low success ratios in mathematics for the third grade of intermediate gender classification, especially with regard to the student group.**

*Key words*: **Educational System, Low student's achievement reasons, Factor analysis, Principle components analysis.**

**Introduction:** *T*eaching in Iraq is witnessing a real catastrophe at the present time as a result of low success rates, which was confirmed by statistics of teaching directorates in various governorates, from low levels for the middle

stage that did not exceed 23% in 2018, bringing the success rate in one of the private schools to 0%, and this is agreed There is a general problem among all specialists in the teaching field that the problem of teaching is a complex problem and its solution does not come through a one-sided procedure. The curriculum is related to the type of teacher and the efficiency of administrative leaders and then to it on the monster of corruption and the school structure and the latter is related to the financing factor, as well as the impact of the decline in social culture Towards the importance of teaching and what is related to the motivation factors of the student..... etc.

This research is one of the pioneering researches in the field of evaluating the teaching process by proposing a weighted measure to diagnose the reasons for the low level of success in mathematics for the third intermediate grade in Iraq, which relates to the extent of the effectiveness of the teaching components in achieving the level of knowledge achievement of students, although the research is an attempt to identify the most important reasons for the low level of success in mathematics for the aforementioned stage, which touched upon the mechanism of all previous researches through polling the opinions of students and teachers concerned with this topic through the numbers of two separate questionnaires, each of which is divided into four main axes, the paragraphs of which included the most important components of the educational system or what is known as the components of the process It is educational [The student, the teacher, the curriculum, and the environment], but estimates were taken of the relative importance of these components and in two overlapping directions. Through the value of saturation of each axis in its extraction of the distinct root when the common system is formed in different patterns by classifying the group of respondents and they are both students and teaching by gender, which were not adopted in previous studies according to our knowledge.

## Research trouble:

Workers in the field of teaching closely notice that extreme deterioration and terrifying degradation at the level of students when the teacher tests the information structure of his students corresponds to a level of information lower than the middle, and this leads to heavy losses and exhausting results in all scientific, cognitive, intellectual, financial and social fields. Everyone should remedy the issue before it is too late to take care of the issue and focus on all the inputs of the educational system, concert the efforts of all opinion-makers, science, teaching  and the media, and study the roots of the reasons that led to this decline and try to remedy it, and its effects on teaching and learning from near and far.

The low level of teaching and learning foreshadows a danger as the number of repeaters exceeds the number of successful people, in addition to the decline in the level of qualitative success among the general number of successful people

as well; this issue has many dimensions and reasons. Socially), from all of this the research problem is highlighted by the following question:

What are the weights (the relative importance) to diagnose the components of the reasons for the low success rates in the mathematics subject for the third grade average in Iraq and who are concerned with its diagnosis?

## Research objective:

The current research aims to suggest a weighted or weighted scale to diagnose the reasons that lead to a low student success ratio in the third grade math subject as an average of distinct and interrelated components by examining student opinions and the opinions of teachers in the light of the components of the teaching system represented by] the student, the teacher, the curriculum , And the environment (other reasons) [, in addition to the effect of forming the components of the common teaching system with its different patterns according to the gender variable.

## Research Importance:

Despite the large number of researches and studies that dealt with the topic of identifying the reasons for the low success ratios of students in mathematics in general, and some of them were devoted to a specific stage of study in particular, they in their entirety have specialized in identifying the general framework for those reasons represented by paragraphs or axes of the teaching system or what The components of the teaching process are known as [the student, the teacher, the curriculum, and the environment], And only if this was done through a survey of the views of both the student or the teacher, or both together, and as a result, they as a whole have lacked the ability to provide a weighted or weighted measure that includes a statement of the relative importance of these components, in addition to showing the effect of that likelihood according to the gender of the respondent (Males and females) In particular, from here came the importance of the current research, which was specialized in providing a measure to measure or weight the relative importance of the components of the teaching process as distinct and intertwined components of each other, which is for the first time according to (tell us)

## Research Hypothesis:

The research hypothesis stated that there are strong and overlapping connections between axes of the components of the teaching system represented by [Student, Teacher, Curriculum, and Environmental (others reasons)] through the presence of at least one common factor that reflects the essence of the teaching process in being a complex and interrelated process with its components, in addition to a statement this affected the formation of the components of the common teaching system, with its different patterns, according to the gender variable.

## Research Limitations:

**1. Time limits:** The research questionnaires prepared for data collection were distributed during the period of March 2020.

**2. Spatial & human boundaries:** This research was limited to intermediate schools students of Baghdad city and their teachers concerning (Karkh - Russafa) sectors.

**3. The objective limits:** The research specialized in preparing two questionnaires for the students, and for the teachers to formulate the content of the paragraphs of the common reasons for causes the low success ratios in mathematics subject for the third intermediate by reviewing many researches, studies and discreet publications and conducting personal interviews with many specialists in various teaching fields due to opening form.

## Research expressions:

**Academic Achievement:** The extent of the goals achieved by the student, as a result of his study of one of the study subjects. (Algamal, 2005: 194)

**Failure:** often includes the failure to achieve a student's promotion to a higher grade.                                    (Good, 1973, 2)

**Low academic achievement (failure):** It is the low teaching attainment of a student under the ordinary and intermediate levels as a result related to the student himself, including what relates to the student, the family environment and school curricula.                    (Youssef &Diab, 2006)

**Theoretical definition of the low achievement of the current research:** It is the weakness of the teaching process through the axes of its intertwined components represented by [Students, Teachers, Curriculum, and the Environmental reasons (others reasons)].

## Research Methodology:

**The descriptive and inferential approach:** It is the approach that aims to describe the reality of the phenomenon under study by questioning all of the sample community or its large samples directly from them (the interview), or indirectly by means of (the questionnaire), to reach the conclusion of facts that simulate the hypothesis of the research goal.

**Research background and previous studies:**

The reasons for studying this topic are the low pass ratios for mathematics for the third intermediate grade, which is indicated by statistical data in the Ministry of teaching.                                    (Ministry of Education, 1986)

**Some of the teacher practices that lead to a low student achievement are:**

The teacher does not pay attention to the basic requirements of the new learning before proceeding to it, and he is not sure of the students' mastery of this subject.

                        (Belques, 1993: 107)

The teacher does not care to promote learning by the teacher's negligence in providing positive reinforcements for students and lack of attention to students with weak level          (Katame and Katame, 2000: 244)

The teacher's lack of interest in providing students with feedback prevents their progress.          (Merhi and Al-Hela, 2011: 107)

The teacher has adopted the old teaching methods that do not stimulate student thinking and exploration.     (Al-Ahmad & Hutham, 2003: 139)

The researcher believes that the teacher can make changes and modifications that no one else can make because he is the important teaching medium with which students interact with them throughout the hours of their day, and that there are dimensions that lead to low mathematical achievement or what is called teaching waste, which are two basic dimensions, namely (qualitative and quantitative):

Qualitative teaching waste: represents (the internal and external competence of the teaching system) and the meaning of internal competence: It is all the human elements involved in education, including planning, building, directing, supervising and implementing the curricula.

As for external competence: It is an teaching system capable of achieving the goals for which the system was found.

-Quantitative teaching waste has two main reasons: failure and dropout

There are various factors that influence mathematics achievement, including:

-What is related to the student such as (intelligence, inclinations, preparations, experiences and motivations of learning, energy and effort)

What is related to the teacher (teaching methods, teacher experience, methods of attracting students, teaching experience, his ability to scientific subject, and his ability to communicate the material)

What is related to the student's environment and social life (free him to study and not assigned to external obligations)

The school provides books and other resources, housing and residence conditions, and the level of family teaching.  (Al-Essawi 2006: 149).

Reasons leading to the low level of mathematics:

Attention to the independence of teaching and learning, which is a human giving, achieves development for the individual and society to rise to the best levels, as it is the means through which building and sustaining human societies is achieved.                    (Al-Nujaihi, 1984: 1)

The principles and values are inspired by generations through social inheritance, and mainly depend on the school curricula and methods of preparing teaching bodies and identify the problems facing students that lead to their failure and failure to study.      (Almusawi , 1998 : 16)

And teaching and learning is a social method and method that earns individuals lifestyles, values and attitudes towards the society in which they live.              (Youssef, 1996: 305)

A decrease in efficiency (Teaching - learning) that affects achieving the goals in terms of quantity and quality, and achieving a balance between the inputs and outputs of Teaching process.

(Bureau of teaching for the Arab States of the Gulf, 1983: 32)

And that the reasons for failure and low level of achievement are:

**First: the family environment:**

1. Parents' lack of interest in developing their children's reading and writing skills from a young age.

2. The low social status of the family causes students to not pay attention to studying.

3. The weak role of the family in cooperating with the school in following up the lessons.

4. Parents do not contact the school to inquire about their children's school contact.

5. Family problems inside the house impede student achievement.

**Second: The study environment**

As for the study environment and the student's relationship with the busy school day, including:

1. Class congestion with students leads to lower achievement in mathematics.

2. Lack of tools and materials available (teaching aids) in school.

3. Delay in receiving new books, sometimes.

**Third: The students:**

1. A decrease or a decrease in the academic achievement of students in mathematics below the regular level due to their fear of mathematics.

2. Poor students' motivation to learn, due to its poor achievement.

3. The presence of mathematics in the last classes of the daily school schedule.

4. Weak awareness among most students of the importance of mathematics.

5. Constant absenteeism from the school.

6. The student is totally dependent on the teacher for solving all problems and applications and neglecting homework.

7. Use the preservation method when not understanding the topic.

**Fourth: The teacher (teaching).**

1. What affects the level of students' achievement in the lack of classroom interaction between the teacher and students?

2. The lack of specialized teachers.

3. Teachers' lack of familiarity with teaching competencies leads to poor performance of students in mathematics.

4. Lack of familiarity with teachers with modern teaching methods appropriate to the educational situation.

5. Not to open training courses for mathematics teachers.

6. Teachers not to use interesting and attractive methods of teaching mathematics.

7. Lack of experience of teachers when applying mathematics education.

8. What affects students 'achievement is teachers' lack of familiarity with the different assessment methods.
9. What affects the level of student achievement in the teacher's social environment (away from school).

**Fifth: Curricula and Mathematics Book Content:**

1. What affects the level of student achievement is the lack of detailed curricula.
2. With the advancement of information technology in teaching mathematics, our teaching institutions lack it.
3. Lack of mathematics classes relative to the curriculum, despite the presence of additional classes.
4. In the Iraqi curriculum there are many questions that are not covered in the presentation of the topic.
5. The large number of questions that the curriculum presentation does not contain, which depends on the experience of the teacher to present the topics.
6. Teachers neglected some of the curriculum contents, which is one of the basics of mathematics.
7. Arranging the subjects of the book according to the mathematical sequence incorrectly, which makes it difficult to teach and learn.

**Negative effects of failure:**

The phenomenon of failure and dropout for the reasons referred to above is reflected on the student, family and society, and the student's self-esteem weakens and becomes concerned about his future and lack of adaptation to society which leads to his frequent flight and leaving school, as well as educational, financial and social waste. (Ministry of Education, 1996).

**Treated Foundations for raising the level of mathematics teaching and learning:**

These include (curriculum, environment, student, teaching staff, parents).

**First: Curriculum:**

It is all the planned experiences, activities or practices that must be provided by the state to help students achieve the desired teaching results, and it is considered a cornerstone for addressing the low level of mathematics learning which must be in line with the level of development in the world. (Jaber, 1984).

The curriculum is an essential pillar in the teaching and learning process, as the school curriculum is all experiences and activities that lead to achieving the desired results in the teaching and learning process.

(Alhila,& marei: 2011, 25)

The curriculum leads to the production of teaching and learning processes that ultimately lead to learners acquiring the required knowledge, experience, skills and inclinations. The curriculum may be a factor for school delay due to its inadequacy to individual differences and failure to meet cognitive needs, which leads to students being reluctant

(Al-Sayed, 2002, 146)

Second: The environment (Teaching, family, peer):

- The teaching environment: It is an integrated teaching environment with its interest in many activities, including educational means and tools that achieve the goals of the school curricula, budgeting the scheduling of each other's materials and setting mathematics early to be taught before the student gets tired and the importance of the home environment lies in following students with the school and its teaching body in terms of Solve daily assignments, monthly tests, and treatment of student .

(Nadiluh, 1985)

-The study environment :is one of the tasks in the teaching and learning process, including the academic and social values it includes, and it is one of the aspects that affect the achievement of students, their personalities, their behavior and their relationship with colleagues, teachers and administrators, and the teachers 'understanding of the various capabilities of students and encourage them by providing the driving environment to that, and using appropriate teaching methods and discussing the problems facing Students and find solutions to it, good interaction.

(Abdullah, 2002: 10)

-Family environment:

-The family's interest in the learner to solve his duties.

-Cooperation between home and school.

-Stir students' motivation with no private schools.

-The large number of amusement means among students and the promotion of the idea of indifference by parents.

Fifth: The Teaching body:

It is the party that works to achieve the desired goals of the curricula away from memorization and indoctrination, and it develops students' thinking stimulating the types of thinking, including creative and critical in all fields of mathematics and other subjects, but in all aspects of life.

- Teaching
  - Using modern methods in teaching mathematics.
  - Using the necessary means and techniques to teach mathematics curricula.
  - Providing learners' motivation and stimulating competition between them
  - Taking into account individual differences between learners.
  - Link math to everyday life.
  - Communication between parents and the teacher.

-Student

The presence of students (learners) interested in the curriculum, following all its topics and lessons with eagerness, desire and motivation in learning, characterized by the integrity of the physical structure to a large extent, characterized by a sound mind capable of thinking, aware of their role assigned to them in the educational process seeking to achieve that role, they have a great desire to Creating and preparing a aware scientific personality capable of thinking and creativity, and this results from the following:

-Students focus with the teacher during the class.

-The cumulative construction of mathematics in the minds of learners.

-Abolishing the learner's fear of mathematics.

-Cancellation of a turnkey solution.

-Motivating students to communicate with mathematics inside and outside the classroom.

- Not to separate the different levels of learners (the distinguished, the ordinary).

- Understanding mathematics is a flexible understanding (understanding content, understanding question, cognitive understanding of mathematics).

## Previous studies:

The process of obtaining previous studies is one of the important things for the researcher for the purpose of making comparisons between the previous studies among them in a number of variables that the researcher believes has a relationship with her research from near or far as well as making comparisons between her research and previous research in these variables, and therefore can lead This deepens the search.

**Study (Namus, 2003):**

The study aimed to reveal the factors leading to a low level of mathematics achievement in the intermediate stage in the Emirates, the study sample consisted of 1124 students, and the study indicated a statistically significant relationship between the level of students' weakness in mathematics and the level of their strength in verbal issues.

**Study (Gorard & Smith, 2008)**

The study aimed to reveal the reasons for the low academic achievement in mathematics for basic stage students in Britain, and the study sample consisted of (2312) from various government schools in Britain, and the results of the study were very low in mathematics as well as the absence of statistically significant differences in the level of student achievement In mathematics, the results indicated that modern and advanced teaching methods were not used, and students' attitudes were negative towards mathematics.

**Study (Herz Allah, 2010):**

The study aimed to know the low level of academic achievement for the first intermediate to middle school in mathematics from the teachers point of view.

The sample of the study consisted of (150) male and female teachers, and the results indicated a low level of achievement in mathematics due to (health weakness, behavioral problems, lack of desire to study, lack of feeling of belonging to the school, lack of interest of teachers in modern educational and psychological theories, crowded classes with students).

**Study (Tugar &Dawd, 2013):**

The study aimed to know the factors that lead to a low level of mathematics achievement, and the study sample consisted of (58) male and female teachers, the tools used as a response from 36 paragraphs, that the mathematics achievement is related to the academic adequacy of the mathematics teacher, and that the mathematical achievement of students is related to the use of methods The old in education, and the continuous training of teachers for mathematics helps raise the educational level of students.

**Discuss previous studies:**

The researcher used four previous studies, and it was found through these studies that there are many different reasons that led to a low level of achievement for students in mathematics and among these reasons (related to the teacher, and what relates to the learner and related to the curriculum and the family, the school and family environment) and these studies coincided with our study.

**Search procedures:**

This section includes defining the general framework of the community and research and methodological procedures. A questionnaire has been prepared for teachers and students and finding the psychometric characteristics of the questionnaire from honesty and consistency.

**First: Research methodology:**

An inferential descriptive approach was used.

**Second: Research Society:**

The research community means all individuals who the researcher studies the phenomenon or event upon.                    (Melhem, 2000: 219)

The community of this research consists of intermediate-level ministerial degrees for mathematics in the general directorates of teaching in Iraq for the academic year 2020.

**Third: The research sample:**

The researcher selects the sample of the research as a partial group of the society to conduct his research according to special rules and be representative of that community.          (Abu Allam, 1989: 82-83)

In order to obtain a representative sample of the indigenous community, a random cluster sample was chosen from middle school students from the general directorates of education for the Baghdad governorate along the Rusafa and Karkh sides of the academic year 2020.

**Fourth: Research tools:**

The research tool is the means or method by which the researcher can solve a research problem, and for this the researcher must use one or several tools to carry out the research, and make sure that this tool or tools are suitable for research to achieve its goals and hypotheses.

(Mahgoub, 2002: 163)

Tools for research were prepared as follows:

Student questionnaire:

a.  Building the questionnaire of middle school students to determine the theoretical premises and basic concepts:

The aim of this questionnaire is to identify factors that lead to poor achievement of middle school students in mathematics.

We have also adopted the logical and mental approach together in building questionnaires based on modern teaching literature, and the opinions of experts and specialists .

b.  Determining the terms of the student questionnaire:

The researcher returned the student questionnaire consisting of (20) items.

c.  Determining the relative importance of resolution items:

The overall objective is to explain why students have low education in mathematics

Preparation of resolution instructions: The questionnaire instructions were prepared, which included how to answer its paragraphs, and urged the respondents to be very accurate and candid, and that the resolution is closed so that they are not afraid during the answer.

d.  Exploratory sample:

To see the clarity and relevance of the questionnaires to the search, 40 students were randomly selected to apply them.

e.  Description of the questionnaire as initially described:

After the procedures achieved in the previous steps, the questionnaire as initially drafted became a component of (19) paragraphs used for the research sample.

The response method for the student questionnaire is set up in a closed manner where students choose the appropriate answer from among the answers given (ok, sometimes, disapproved).

2.Teachers' Questionnaire: This questionnaire aimed to identify the areas that should be available in math teachers In the middle stage, the current research in the preparation of the questionnaire was based on the experience of the researcher and modern educational literature, and the opinions of experts and specialists.

a.  Building the questionnaire of mathematics teachers for middle school to determine the theoretical premises and basic concepts:

We have adopted both the logical and mental approach in the construction of resolution.

**b.** **Identifying teacher selections**

The questionnaire was formed from (12) a basic dimension for teachers.

**c.** **Determine the relative importance of resolution lines:**

The overall objective is to show the opinion of math teachers about their students' education and the low level of students in mathematics

**d.** **Setting up resolution instructions:**

The questionnaire is openly prepared where the teacher chooses the appropriate answer from among the answers given (ok, sometimes, disapproved) and grades (1,2,3) are given to each dimension by the likert scale respectively.

**e.** **Sample survey:**

To see the clarity of the teachers' questionnaires and their suitability for the application, 10 teachers were selected to apply the questionnaire initially.

**f.** **Description of the questionnaire as initial:**

After the actions achieved in the previous steps, the questionnaire as initially drafted is made up of (12) paragraphs.

**First: The validity of the questionnaire:**

Honesty is an important standard (sequoia) characteristic that should be available in educational and psychological standards.

The researcher extracted two types of honesty: virtual honesty, honesty of construction), as follows:

Virtual honesty: It indicates that the best way to ascertain the apparent honesty of the questionnaire is to present it to a number of arbitrators to assess the extent to which the resolution paragraphs of the attribute or characteristic to be measured are achieved.          (Ebel: 1972, 566)

Constructive honesty: the extent to which we can determine that the resolution measures a specific theoretical structure or property.

                                        ( Stanley & Hokins, 1972 :111)

**Second, The stability of the questionnaire:**

Consistency is one of the characteristics that should be verified in psychological measures, although honesty is more important than persistence, as a measure that is true in nature is fixed while a fixed scale does not necessarily have to be true, but the calculation of stability gives us another indication .                    (Zeller&Cormunes,1980 :77)

The Cooper equation was used to calculate the agreement percentage, which amounted to (0.82), which means that the consistency of students' questionnaire was appropriate.

Stability calculation for teachers' questionnaire was by way of re-testing. The tool was applied again to a sample of (20) teachers and schools. The stability ratio was (0.87).

The application of two questionnaires:

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After confirming the psychometric properties of the two questionnaires, they were applied to the two research samples, which were randomly chosen from students and teachers.

**Statistical methods:** The appropriate statistical methods have been used to describe and extrapolate the research findings as follows

**A-Descriptive Methods •** Descriptive statistical tables (mean measurement (mq), mean overall measurement (mqm), standard deviation (n p), standard error (kh), relative adequacy (kn).

• **Pearson simple correlation coefficient.**

 • **Shapes and graphs are represented in a way**

**-Cluster graphic tapes.**

**- The regression line for the basic vehicles of the extracted axes.**

**B- Inferential methods**

• **The test (t - test) was used for two independent samples to examine the match between the two groups (male and female).**

• **A t-test was used to examine the significance of Pearson's simple correlation coefficient.**

• **Factor analysis Using the basic Principle Components**

**View and analyze results :**

**First: the reasons for the low level of success in mathematics from the students' point of view**

   Table no. (1-1) shows the observed frequencies, percentages, and some descriptive statistics for the paragraphs of the reasons for the low level of success in mathematics for the third grade, medium in Iraq, and from the students' point of view represented by (average measurement, standard deviation, and relative adequacy), In addition to the index of evaluation of response levels distributed in four axes which are (reasons attributed to the student, reasons attributed to the teacher, reasons attributed to the curriculum, and other reasons that lead to the weakness of the student in mathematics), according to estimates of the occurrence of the values of relative efficiencies achieved  Likert  The conversion trio in relative degrees is high (77.78 - 100), medium (55.56 - 77.77), and low. (33.33 - 55.55).

**Table (1-1) Descriptive statistics of the paragraphs of the scale of the reasons for the low level of success in mathematics for the third grade average in Iraq from the students' point of view and the level of its evaluation**

| Dom. | Items | Response | No. | % | MS | SD | RS% | Ass. |
|---|---|---|---|---|---|---|---|---|
| Reasons attributed to the student | The absence of students from   school continuously | not agree | 25 | 16.7 | 2.36 | 0.75 | 78.67 | H |
| | | Sometimes | 46 | 30.7 | | | | |
| | | Agree | 79 | 52.7 | | | | |
| | Students neglecting homework in mathematics | not agree | 17 | 11.3 | 2.41 | 0.69 | 80.33 | H |
| | | Sometimes | 55 | 36.7 | | | | |
| | | Agree | 78 | 52 | | | | |
| | Neglecting mathematics as | not agree | 20 | 13.3 | 2.41 | 0.72 | 80.33 | H |

| Dom. | Items | Response | No. | % | MS | SD | RS% | Ass. |
|---|---|---|---|---|---|---|---|---|
| | a result of students' health and behavioral conditions | Sometimes | 49 | 32.7 | | | | |
| | | Agree | 81 | 54 | | | | |
| | The students were unable to focus during the exam | not agree | 29 | 19.3 | 2.23 | 0.75 | 74.33 | M |
| | | Sometimes | 58 | 38.7 | | | | |
| | | agree | 63 | 42 | | | | |
| | Excess anxiety during the exam | not agree | 29 | 19.3 | 2.24 | 0.76 | 74.67 | M |
| | | Sometimes | 56 | 37.3 | | | | |
| | | agree | 65 | 43.3 | | | | |
| A reason attributed to the teacher | The poor achievement of students as a result of their poor motivation to learn | not agree | 24 | 16 | 2.27 | 0.72 | 75.67 | M |
| | | Sometimes | 62 | 41.3 | | | | |
| | | agree | 64 | 42.7 | | | | |
| | Poor awareness of students towards studying mathematics | not agree | 22 | 14.7 | 2.4 | 0.73 | 80 | H |
| | | Sometimes | 46 | 30.7 | | | | |
| | | agree | 82 | 54.7 | | | | |
| | Not to use teaching aids in the class | not agree | 16 | 10.7 | 2.4 | 0.68 | 80 | H |
| | | Sometimes | 58 | 38.7 | | | | |
| | | agree | 76 | 50.7 | | | | |
| | When teaching mathematics, the teacher does not use inform… | not agree | 18 | 12 | 2.39 | 0.69 | 79.67 | H |
| | | Sometimes | 55 | 36.7 | | | | |
| | | agree | 77 | 51.3 | | | | |
| | The student's relationship with mathematics teacher | not agree | 22 | 14.7 | 2.33 | 0.72 | 77.67 | M |
| | | Sometimes | 57 | 38 | | | | |
| | | Agree | 71 | 47.3 | | | | |
| Reasons attributed to the curriculum | The relationship of students to the content of the mathematics book | not agree | 31 | 20.7 | 2.32 | 0.8 | 77.33 | M |
| | | Sometimes | 40 | 26.7 | | | | |
| | | Agree | 79 | 52.7 | | | | |
| | Difficulty book of math | not agree | 18 | 12 | 2.45 | 0.7 | 81.67 | H |
| | | Sometimes | 46 | 30.7 | | | | |
| | | Agree | 86 | 57.3 | | | | |
| | Students rely on the ready-made solution of Lieutenant in Mathematics | not agree | 25 | 16.7 | 2.29 | 0.74 | 76.33 | M |
| | | Sometimes | 56 | 37.3 | | | | |
| | | Agree | 69 | 46 | | | | |
| | Lack of understanding of mathematics | not agree | 28 | 18.7 | 2.27 | 0.76 | 75.67 | M |
| | | Sometimes | 53 | 35.3 | | | | |
| | | Agree | 69 | 46 | | | | |
| | Lack of information, mathematics subject in students' knowledge structure | not agree | 34 | 22.7 | 2.23 | 0.8 | 74.33 | M |
| | | Sometimes | 47 | 31.3 | | | | |
| | | Agree | 69 | 46 | | | | |

Continue …

| Dom. | Items | Response | No. | % | MS | SD | RS% | Ass. |
|---|---|---|---|---|---|---|---|---|
| Other reasons that lead to a student's weakness in mathematics attributed to | Students' achievement decline in mathematics due to class congestion | not agree | 15 | 10 | 2.41 | 0.67 | 80.33 | H |
| | | Sometimes | 58 | 38.7 | | | | |
| | | Agree | 77 | 51.3 | | | | |
| | The presence of math classes in the last classes | not agree | 17 | 11.3 | 2.49 | 0.69 | 83 | H |
| | | Sometimes | 43 | 28.7 | | | | |
| | | Agree | 90 | 60 | | | | |
| | Math teacher (his style, methods, and experience) | not agree | 20 | 13.3 | 2.37 | 0.71 | 79 | H |
| | | Sometimes | 55 | 36.7 | | | | |
| | | Agree | 75 | 50 | | | | |
| | The student's family problems lead to poor | not agree | 25 | 16.7 | 2.35 | 0.75 | 78.33 | H |
| | | Sometimes | 48 | 32 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **achievement** | Agree | 77 | 51.3 | | | | |
| **The lack of follow-up to the student's guardian and the assignment of students to family burdens** | not agree | 22 | 14.7 | 2.35 | 0.72 | 78.33 | H |
| | Sometimes | 54 | 36 | | | | |
| | Agree | 74 | 49.3 | | | | |

The Assessment : H : High (77.78 - 100); M : Moderate (55.56 - 77.77); L: Low (33.00 - 55.55)

Where the results of the evaluation of the responses of the research sample indicate the severity of the high level of responses towards high and medium levels, through estimates of relative competency values, from the viewpoint of the respondents, the student sample, The response rate has reached a high level 12(60%) And the remainder of them have been recorded at an average level and a rate of 8 (40), which reflects the importance of the paragraphs in general in the study and diagnosis of the reasons for the low level of success in mathematics for the third grade average in Iraq and from the viewpoint of students.

Table (1-2) also shows the statistical summary of the axes of the reasons for the low level of success in mathematics for the third grade, average in Iraq, and from the students 'point of view represented by (average measurement, standard deviation, and relative adequacy), in addition to the response evaluation index Grand Mean of Score At each axis the subject of the research and at the level of all axes is represented Global Mean of Score

Table (1-2) descriptive statistics of the axes of the scale of the reasons for the low level of success in mathematics for the third grade of intermediate in Iraq from the students' point of view and the level of its evaluation

| Main Domains | No. | GMS | PSD | GRS% | Ass. |
|---|---|---|---|---|---|
| Student-specific reasons | 150 | 2.33 | 0.44 | 77.6 | M |
| Teacher-specific reasons | 150 | 2.36 | 0.41 | 78.58 | H |
| Reasons for the curriculum | 150 | 2.31 | 0.37 | 77.16 | M |
| Other reasons lead to the student's weakness in mathematics | 150 | 2.39 | 0.37 | 79.73 | H |
| Over All Assessment | 150 | 2.35 | 0.26 | 78.27 | H |

The Assessment : H : High (77.78 - 100); M : Moderate (55.56 - 77.77); L: Low (33.00 - 55.55)

Where the results of the evaluation of the responses of the research sample indicate the sharpness of the high level of responses towards a high level of evaluation at my pivot (reasons specific to the teacher, and other reasons that lead to the weakness of the student in mathematics), with the convergence of the other levels of evaluation which are (reasons specific to the student, and reasons for specializing The aforementioned level, which also requires introduction, and at a similar level in terms of importance in diagnosing the reasons for the decline in the level of success in mathematics, which was confirmed by the level of evaluation at the level of all axes as well.

In light of the findings of the research hypotheses regarding the similar levels of response by gender (male and female), Table No. (1-3) It includes the results of estimates (total average measurement, standard deviation, and standard

error), T value and their significance level for comparison between male and female groups at each axis.

Table (1-3) Descriptive statistics of the axes of the scale of the reasons for the low level of success in mathematics for the third grade average in Iraq from the viewpoint of students classified by gender and the level of their significance

| Main Domains | Gender | No. | Mean | SD | SE | MP t-teat | P-value | C.S. |
|---|---|---|---|---|---|---|---|---|
| Reasons for the student | M | 75 | 2.323 | 0.407 | 0.047 | -0.148 | 0.882 | NS |
| | F | 75 | 2.333 | 0.472 | 0.055 | | | |
| Reasons for the student | M | 75 | 2.259 | 0.417 | 0.048 | -3.014 | 0.003 | HS |
| | F | 75 | 2.456 | 0.384 | 0.044 | | | |
| Reasons for the curriculum | M | 75 | 2.296 | 0.368 | 0.043 | -0.615 | 0.54 | NS |
| | F | 75 | 2.333 | 0.375 | 0.043 | | | |
| other reasons | M | 75 | 2.347 | 0.372 | 0.043 | -1.507 | 0.134 | NS |
| | F | 75 | 2.437 | 0.364 | 0.042 | | | |
| Overall Assessment | M | 75 | 2.306 | 0.241 | 0.028 | -2.024 | 0.045 | S |
| | F | 75 | 2.39 | 0.266 | 0.031 | | | |

[*] HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; Testing based on a Matched Paired t - test.

Where the results of the moral comparisons indicate the presence of a high moral difference with a significance less than the level (0.01) at the axis (the reasons for the teacher), Where female responses were more intense compared to males towards an acceptable level. On the other hand, the results of the intangible comparisons recorded no significant differences at a level greater than (0.05) in the other axes, which reflects the similarity of the responses of both genderes in each of them.

In general, the results of the significant comparison were recorded to the presence of a significant difference with a significance less than the level of (0.05) at the overall output of the measurement averages at the level of all axes. Figure (1-1) shows the graphic distribution of the overall and comprehensive measurement averages for both genders and for the (students') responses according to the researched themes.
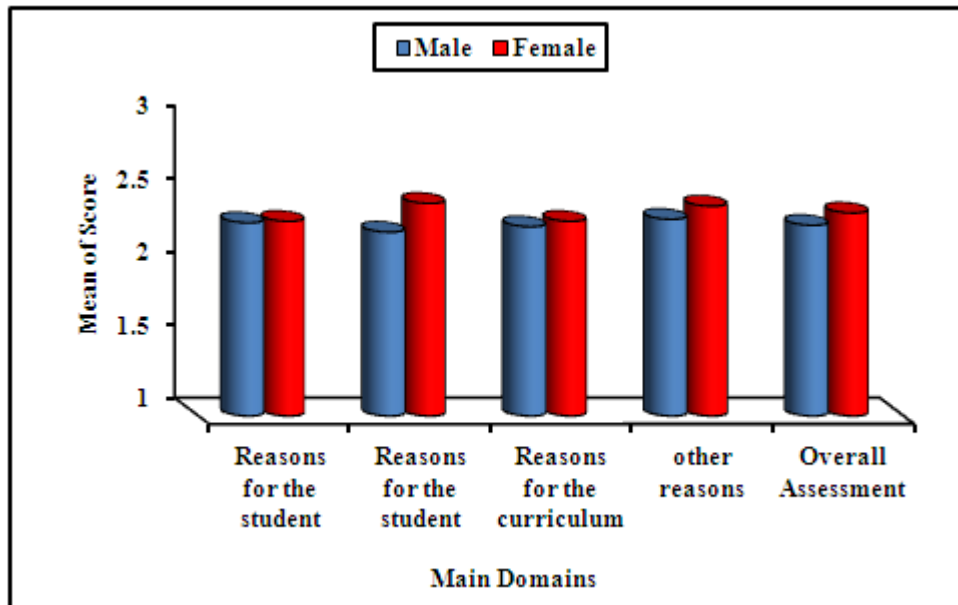
**Figure (1-1) graphical distribution of overall and total measurement averages, disaggregated by gender, for (student) responses according to the research topics**

**Second: the reasons for the low level of success in mathematics from the viewpoint of teachers**

**Table No. (2-1) shows the observed frequencies, their percentages, and some descriptive statistics of the paragraphs of the reasons for the low level of success in mathematics for the third grade, medium in Iraq, and from the teaching viewpoint represented by (average measurement, standard deviation, and relative adequacy), In addition to the evaluation index of response levels distributed in four axes which are (reasons specific to the student, reasons specific to the teacher, reasons specific to the curriculum, and other reasons that lead to the weakness of the student in mathematics), according to estimates of the occurrence of the relative competency values achieved according to periods Likert The conversion trio in relative degrees is high (77.78 - 100), medium (55.56 - 77.77), and low (33.33 – 55.55).**

**Table (2-1) Descriptive statistics of the paragraphs of the scale of the reasons for the low level of success in mathematics for the third grade average in Iraq from the viewpoint of the teachers and the level of its evaluation**

| Dom. | Items | Response | No. | % | MS | SD | RS% | Ass. |
|---|---|---|---|---|---|---|---|---|
| Reasons for the student | Not taking into account the individual differences between students during education | not agree | 28 | 18.7 | 2.19 | 0.73 | 73 | M |
| | | Sometime | 66 | 44 | | | | |
| | | Agree | 56 | 37.3 | | | | |
| | The curriculum is not compatible with the students' level | not agree | 23 | 15.3 | 2.34 | 0.73 | 78 | H |
| | | Sometime | 53 | 35.3 | | | | |
| | | Agree | 74 | 49.3 | | | | |
| | The absence of a flexible class interaction between the teacher and the learner | not agree | 21 | 14 | 2.31 | 0.7 | 77 | M |
| | | Sometime | 62 | 41.3 | | | | |
| | | Agree | 67 | 44.7 | | | | |
| Reasons for the teacher | The teacher's experience in teaching mathematics has declined | not agree | 29 | 19.3 | 2.34 | 0.78 | 78 | H |
| | | Sometime | 41 | 27.3 | | | | |
| | | Agree | 80 | 53.3 | | | | |
| | Teachers do not use teaching methods appropriate to the educational and modern situation | not agree | 20 | 13.3 | 2.37 | 0.71 | 79 | H |
| | | Sometime | 54 | 36 | | | | |
| | | Agree | 76 | 50.7 | | | | |
| | The teacher is not committed to modern assessment methods | not agree | 21 | 14 | 2.32 | 0.71 | 77.3 | M |
| | | Sometime | 60 | 40 | | | | |
| | | Agree | 69 | 46 | | | | |
| Reasons for the curriculum | Teachers' lack of familiarity with modern cognitive theories | not agree | 21 | 14 | 2.38 | 0.72 | 79.3 | H |
| | | Sometime | 51 | 34 | | | | |
| | | Agree | 78 | 52 | | | | |
| | Not using the detailed explanation of the curriculum | not agree | 18 | 12 | 2.36 | 0.69 | 78.7 | M |
| | | Sometime | 60 | 40 | | | | |
| | | Agree | 72 | 48 | | | | |
| | Increased curriculum versus limited time | not agree | 35 | 23.3 | 2.19 | 0.79 | 73 | H |
| | | Sometime | 51 | 34 | | | | |
| | | Agree | 64 | 42.7 | | | | |
| Other reasons that lead to a student's weakness in mathematics attributed to | The increase in the number of classes taken by the mathematics teacher | not agree | 27 | 18 | 2.3 | 0.76 | 76.7 | M |
| | | Sometime | 51 | 34 | | | | |
| | | Agree | 72 | 48 | | | | |
| | The teacher's inability to manage the class | not agree | 20 | 13.3 | 2.33 | 0.7 | 77.7 | M |
| | | Sometime | 60 | 40 | | | | |
| | | Agree | 70 | 46.7 | | | | |
| | Lack of understanding between parents and the teacher | not agree | 14 | 9.3 | 2.47 | 0.66 | 82.3 | H |
| | | Sometime | 52 | 34.7 | | | | |
| | | Agree | 84 | 56 | | | | |

The Assessment : H : High (77.78 - 100); M : Moderate (55.56 - 77.77); L: Low (33.00 - 55.55)

Where the results of the evaluation of the responses of the research sample indicate the intensity of the level of responses to the high and medium levels, through estimates of the values of relative efficiency, from the point of view of

the respondents sample students, The response rate is at a high level 12(60%) The rest of them have been recorded at an average level and by a ratio of 8(40%) This reflects the importance of the vertebrae in general in the study and diagnosis of the reasons for the low level of success in mathematics for the third grade average in Iraq and from the point of view of students.

Table 1-2 also shows the statistical summary of the reasons for the low level of success in mathematics for the third grade, an average in Iraq and from the student's point of view (average measurement, standard deviation, and relative efficiency). In addition to the indicator of the evaluation of response levels in the integrated form of the averages of the total measurement (Grand Mean of Score) At each subject of the research and at the level of all axes represented by the average overall measurement (Global Mean of Score)

Table (2.2) Descriptive statistics for the axes of the measure of the reasons for the low level of success in mathematics for the third grade average in Iraq from the point of view of students and the level of evaluation

| Main Domains | No. | GMS | PSD | GRS% | Ass. |
|---|---|---|---|---|---|
| Student-specific reasons | 150 | 2.33 | 0.44 | 77.6 | M |
| Teacher-specific reasons | 150 | 2.36 | 0.41 | 78.58 | H |
| Reasons for the curriculum | 150 | 2.31 | 0.37 | 77.16 | M |
| Other reasons lead to the student's weakness in mathematics | 150 | 2.39 | 0.37 | 79.73 | H |
| Over All Assessment | 150 | 2.35 | 0.26 | 78.27 | H |

The Assessment : H : High (77.78 - 100); M : Moderate (55.56 - 77.77); L: Low (33.00 - 55.55)

Where the results of the evaluation of the responses of the research sample indicate the intensity of the level of responses to a high level of evaluation at the central level (reasons for the teacher, and other reasons leading to the weakness of the student in the subject of mathematics), with the convergence of the other two levels of the calendar , namely (reasons for the student, and reasons for the curriculum) of The level mentioned, which also needs to be adopted at a similar level in terms of importance in diagnosing the reasons for the decline in the level of success in mathematics, which was confirmed by the level of the calendar at the level of all axes as well.

In the light of the research hypotheses of the similarity of response levels by gender (male and female).

Table (3-1) Contains the results of estimates (Grand Mean of Score, Pooled Standard Deviation, Standard Error and the T-value and level of its significance of comparison between the male and female groups at each main domain.

| Main Domains | Gender | No. | Mean | SD | SE | MP t-test | P-value | C.S. (*) |
|---|---|---|---|---|---|---|---|---|
| Reasons for the student | M | 75 | 2.302 | 0.396 | 0.046 | 0.737 | 0.463 | NS |
| | F | 75 | 2.253 | 0.417 | 0.048 | | | |
| Reasons for the student | M | 75 | 2.289 | 0.460 | 0.053 | -1.504 | 0.135 | NS |
| | F | 75 | 2.400 | 0.445 | 0.051 | | | |
| Reasons for the curriculum | M | 75 | 2.249 | 0.490 | 0.057 | -1.65 | 0.101 | NS |
| | F | 75 | 2.373 | 0.431 | 0.050 | | | |
| other reasons | M | 75 | 2.369 | 0.370 | 0.043 | 0.067 | 0.947 | NS |
| | F | 75 | 2.364 | 0.439 | 0.051 | | | |
| All axes (mass output) | M | 75 | 2.302 | 0.294 | 0.034 | -0.971 | 0.333 | NS |
| | F | 75 | 2.348 | 0.280 | 0.032 | | | |

(*) HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; Testing based on a Matched Paired t - test.

Where the results of the moral comparisons indicate the presence of a high moral difference with a significance less than the level (0.01) at the axis (reasons specific to the teacher), where the increase in the severity of female responses compared to males towards an acceptable level. On the other hand, the results of the intangible comparisons were not indicative of differences. Figure (2-1) shows the graphic distribution of the overall and total measurement averages for both gender and those of (the teaching staff) according to the researched axes.
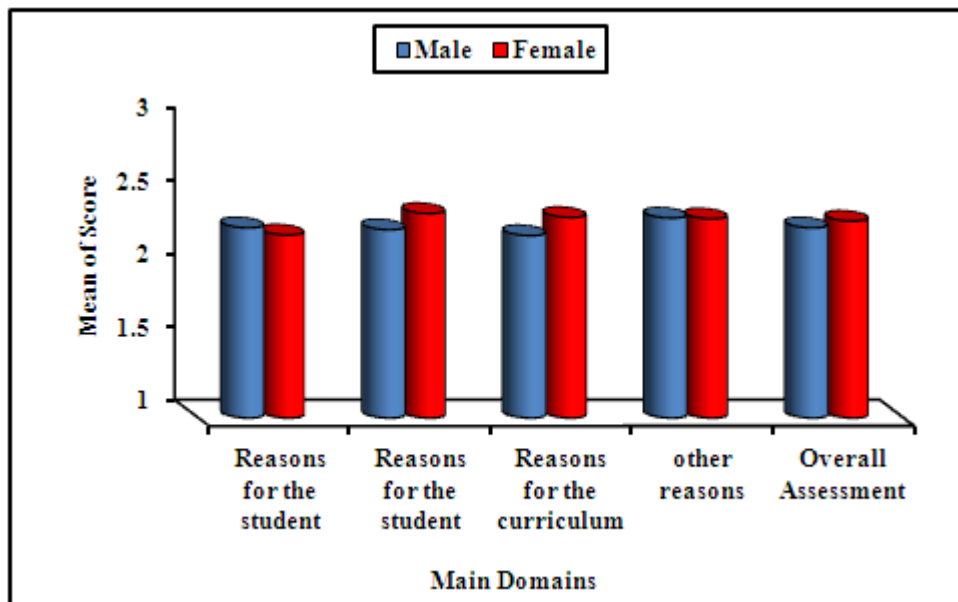


Figure (2-1) shows the graphic distribution of the overall and total measurement averages for both genders and those of (the teaching staff) according to the researched main domains

**Third: The Global Analysis:**

**The process of examining the importance of the dimensions of the axes of the research phenomenon as interacting variables with each other in constructing a model (not specified) through the basic components of the moral factors in the light of an appropriate criterion is the basis for any quantitative analysis (such as cluster analysis, pathway analysis or analysis, In general, the factor analysis raises a number of inquiries: (What are the most important explanatory axes? What is the hierarchy of axes according to their importance? And how do you explain the relationships between those axes?). To summarize the foregoing, the factor analysis technique depends on extracting the common factors that the resulting connections between the set of axes of the phenomenon are the basis for its formation, in other words, the factor analysis reveals through extracted factors the essence of nature.**

**In this research, the factor analysis technique was applied using the basic compounds method, based on estimates of the total measurement averages**

**(Grand Mean of Score) The responses of the respondents are two groups (students and faculty), as follows:**

**First: The Student Group Table (3-1) includes estimates of the simple correlation coefficients of Pearson between the research subjects, and their significant meanings for the group of students classified by gender.**

**Table (3-1) Estimates of Pearson's Simple Correlation Coefficients between the Researches, and their Significant Implications for the Group of Students Classified by Gender**

| Gender | correlation | Main Domains | Teacher-specific reasons | Reasons for the curriculum | Other reasons |
|---|---|---|---|---|---|
| **M** | correlation | Student-specific reasons | -0.030 | 0.184 | 0.187 |
| | | Teacher-specific reasons | | 0.223 | 0.268 |
| | | Reasons for the curriculum | | | 0.235 |
| | P-value | Student-specific reasons | 0.398 | 0.057 | 0.055 |
| | | Teacher-specific reasons | | 0.027 | 0.010 |
| | | Reasons for the curriculum | | | 0.021 |
| **F** | correlation | Student-specific reasons | 0.271 | 0.176 | 0.411 |
| | | Teacher-specific reasons | | -0.030 | 0.286 |
| | | Reasons for the curriculum | | | 0.434 |
| | P-value | Student-specific reasons | 0.124 | 0.180 | 0.304 |
| | | Teacher-specific reasons | | 0.110 | 0.296 |
| | | Reasons for the curriculum | | | 0.337 |
| **All** | correlation | Student-specific reasons | 0.124 | 0.180 | 0.304 |
| | | Teacher-specific reasons | | 0.110 | 0.296 |
| | | Reasons for the curriculum | | | 0.337 |
| | P-value | Student-specific reasons | 0.065 | 0.014 | 0.000 |
| | | Teacher-specific reasons | | 0.091 | 0.000 |
| | | Reasons for the curriculum | | | 0.000 |

[*] **HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing are based on the "Pearson coefficient" t-test.**

As the diversity of the degree of these relationships is evident through the fundamental differences in the levels of significance, which confirms the necessity of conducting the global analysis as a result of what is characteristic of the phenomenon in light of the response of those mentioned as being an atypical phenomenon based in its essence on an unspecified level of common variation (3-2) Includes extracted factors

(Extracted Factors) Expressing the level of important interactions between those relationships with the aim of arriving at a diagnosis of the relative importance of these axes and showing the dimensions of the phenomenon through them.

Table (3-2) Extracting the factors of the system defined by the relationship between the Main Domains of the reasons for the low level of success in mathematics for the third grade, average in Iraq from the students point of view, according to gender

| Gender | Specialized Data (Main Domains) | Extracted Factors | |
|---|---|---|---|
| | | First | Second |
| Male | Student-specific reasons | | 0.908 |
| | Teacher-specific reasons | 0.791 | |
| | Reasons for the curriculum | 0.615 | |
| | Other reasons lead to the student's weakness in mathematics | 0.684 | |
| | Latent roots | 1.558 | 1.030 |
| | The relative importance of factor (%) | 38.95 | 25.760 |
| Female | Student-specific reasons | 0.659 | |
| | Teacher-specific reasons | 0.864 | |
| | Reasons for the curriculum | | 0.903 |
| | Other reasons lead to the student's weakness in mathematics | | 0.700 |
| | Latent roots | 1.82 | 1.059 |
| | The relative importance of factor (%) | 45.5 | 26.490 |
| All | Student-specific reasons | 0.606 | |
| | Teacher-specific reasons | 0.545 | |
| | Reasons for the curriculum | 0.628 | - |
| | Other reasons lead to the student's weakness in mathematics | 0.799 | |
| | Latent roots | 1.698 | |
| | The relative importance of factor (%) | 42.438 | |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Where the system factors extracted and defined on the research axes classified according to gender, there are two distinct patterns to explain the common variations of each. In light of the factors extracted for the student group (males), the process of splitting the questionnaire paragraphs into two parts has been achieved. An important percentage problem of (38.95), which is the first distinct root ratio of the common variance of the total variance, and the second factor in it is from the axis (reasons for the student) An important percentage problem (25.76%) It is the second distinctive root ratio of the common variance of the total variance, while the group of female students (females) came with axes arranged according to their importance and it is a factor (reasons for the student, and reasons for the teacher) The problem of the importance ratio of the amount (45.50%) It is the ratio of the first distinctive root of the common variance of the total variance, and the second factor in it is two axes arranged according to its importance and is a factor

**(Reasons specific to the curriculum, and other reasons that lead to a student's weakness in mathematics) A problem of significant importance (26.49%) It is the second distinctive root ratio of the common variance of the total variance. Figure ( 3-1) shows the two-dimensional graph of the regression line for the basic compounds of the axes extracted for the two groups of students (male and female).**
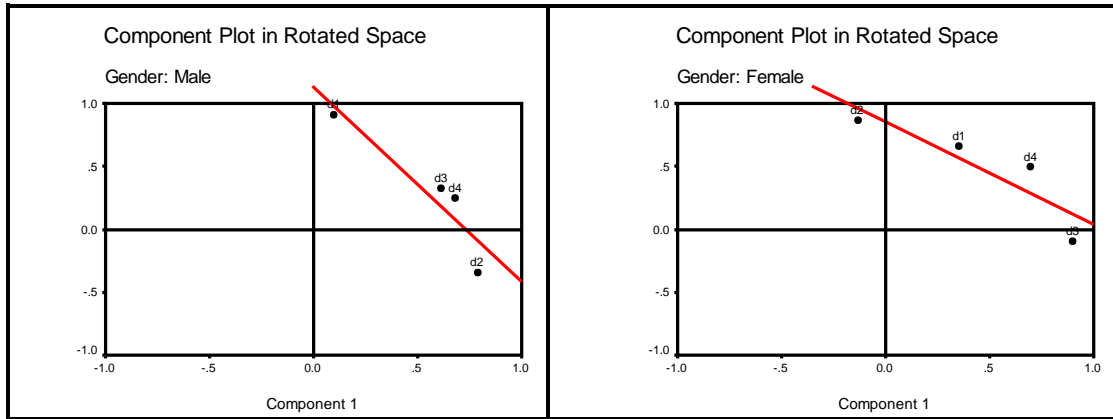


**Figure 3-1: Two-dimensional graph for estimating the regression line of the basic compounds of the axes extracted for the two groups of students (male and female).**

**Second, the group of teachers. Table No. 4-3 includes estimates of Pearson's simple correlation coefficients Between the research subjects, and their moral connotations for the two groups of teaching disaggregated by gender.**

**Table (4-3) Estimates of Pearson's Simple Correlation Coefficients between the Researches, and their Significant Implications for Two Teaching Groups Classified by Gender**

| Gender | correlation | Main Domains | Teacher-specific reasons | Reasons for the curriculum | Other reasons |
|---|---|---|---|---|---|
| **M** | correlation | Student-specific reasons | 0.190 | 0.334 | 0.510 |
| | | Teacher-specific reasons | | 0.216 | 0.274 |
| | | Reasons for the curriculum | | | 0.282 |
| | P-value | Student-specific reasons | 0.051 | 0.002 | 0.000 |
| | | Teacher-specific reasons | | 0.031 | 0.009 |
| | | Reasons for the curriculum | | | 0.007 |
| **F** | correlation | Student-specific reasons | 0.337 | 0.203 | 0.203 |
| | | Teacher-specific reasons | | 0.150 | 0.258 |
| | | Reasons for the curriculum | | | 0.088 |
| | P-value | Student-specific reasons | 0.002 | 0.003 | 0.041 |
| | | Teacher-specific reasons | | 0.099 | 0.013 |
| | | Reasons for the curriculum | | | 0.225 |
| **All** | correlation | Student-specific reasons | 0.254 | 0.310 | 0.338 |
| | | Teacher-specific reasons | | 0.199 | 0.262 |
| | | Reasons for the curriculum | | | 0.179 |
| | P-value | Student-specific reasons | 0.001 | 0.000 | 0.000 |
| | | Teacher-specific reasons | | 0.007 | 0.001 |
| | | Reasons for the curriculum | | | 0.014 |

**[*] HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing are based on the "Pearson coefficient" t-test.**

As the diversity of the degree of these relationships is evident through the significant differences in the levels of significance, which confirms the necessity of conducting a global analysis to identify the nature of the differentiation of the co-variability matrix estimates resulting from the interactions of the axes with each other. Table No. (5-3) includes factors

(Extracted Factors) Expressing the level of important interactions between those relationships with the aim of arriving at a diagnosis of the relative importance of these axes and showing the dimensions of the phenomenon through them.

Table (5-3) Extraction of system factors defined by the relationship between the Main Domains of the reasons for the low level of success in mathematics for the third grade, average in Iraq from the viewpoint of the teachers by gender

| Gender | Specialized Data (Main Domains) | Extracted Factors |
|---|---|---|
| Male | Student-specific reasons | 0.776 |
| | Teacher-specific reasons | 0.542 |
| | Reasons for the curriculum | 0.645 |
| | Other reasons lead to the student's weakness in mathematics | 0.784 |
| Latent roots | | 1.926 |
| Latent roots (%) | | 48.159 |
| Female | Student-specific reasons | 0.758 |
| | Teacher-specific reasons | 0.700 |
| | Reasons for the curriculum | 0.564 |
| | Other reasons lead to the student's weakness in mathematics | 0.556 |
| Latent roots | | 1.691 |
| Latent roots (%) | | 42.265 |
| All | Student-specific reasons | 0.758 |
| | Teacher-specific reasons | 0.700 |
| | Reasons for the curriculum | 0.564 |
| | Other reasons lead to the student's weakness in mathematics | 0.556 |
| Latent roots | | 1.777 |
| Latent roots (%) | | 44.430 |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Where the only extracted system factor indicates that there is a single pattern for distinguishing common variance identified on the research axes disaggregated by gender. In light of the only abstract factor for the student group (male) The results of the axes of the questionnaire arranged according to their importance are (other reasons that lead to the weakness of the student in mathematics, reasons for the student, reasons for the curriculum, and reasons for the teacher) (48.159%) It is the ratio of the common variance to the total variance, while the group of female teachers (female) came with the axes arranged according to their importance which are (the reasons for the student, the reasons for the teacher, the reasons for the curriculum, other reasons that lead to the weakness of the student in mathematics) (42.265%) It is the ratio of the combined contrast to the total variance.

Conclusions:
1.  First: the results of the evaluation of the responses of the research sample have recorded a group of students that approximate or abut with the

boundaries of the cut-off point assessment (medium / high), which requires taking all the paragraphs of the scale prepared to diagnose the reasons for the decline in the level of success in the mathematics subject for the third grade average.

2. The results of the evaluation of the responses of the research sample have recorded a group of teachers that approximates or abuts the limits of the assessment of the cut-off point (medium / high), which requires the introduction of all paragraphs of the scale prepared to diagnose the reasons for the decline in the level of success in mathematics for the third grade.

3. It is clear that the reasons for the low level of success in mathematics for the third grade are average in Iraq through the viewpoint of the students in general, it has achieved a unique and unique factor in their diagnosis for the reasons for the low level, and then the component follows [reasons specific to the curriculum], then the component [reasons specific to the student], then finally follows the component [reasons specific to the teacher], While the results of the relative importance came in a relatively high degree by gender classification, the group of male students recorded two distinct factors in their diagnosis for reasons of low level and of relative importance above average in their interpretation of the interconnections resulting from the axes of the phenomenon, where the first factor represented the objective reasons which are the overlap and saturation of each of the ordered components [the teacher, and other reasons related to (school and family administration), the curriculum], And with a degree of importance that increases by half the importance of the second factor, which is represented by subjective reasons, which is related to the saturation of the component (student) exclusively. As for the group of female students, they recorded two distinct factors in their diagnosis for reasons of low level, and of good relative importance in their interpretation of the resulting overlapping connections. Where the first factor represented the human pillar of the educational process, which is the overlap and saturation of each of the two components arranged [teacher, student], and the second factor is the material corner, which is related to the saturation of the trained components [curriculum, and other reasons related to (school and family administration)].

4. It is clear that the reasons for the low level of success in mathematics for the third grade are average in Iraq, through the viewpoint of the teaching staff in general. It has achieved a unique and unique factor in their diagnosis of the reasons for the low level. The worker interprets it and through the forefront of the human pillar of the educational process, it is the overlap of both the arranged components [the teacher and the student], and at a high level of saturation, while the two components of the physical pillar came, which is related to the arranged components] curriculum, and other reasons related to (school administration At medium saturation level. This, and the results of the relative importance of saturation and overlapping of all objective and subjective reasons, and also at the level of the average in terms of importance by gender, the male teaching group recorded a unique and unique factor in their diagnosis for reasons of low level, and it came ], Then the arranged constituents [reasons specific to the curriculum, and reasons specific to the teacher],

while the group of female teachers has registered a single distinctive factor also in their diagnosis of the reasons for the low level, it satiated and overlapped all the objective and subjective causes through the top of the human pillar of the process And with a high degree of saturation, and then the two components of the physical corner, which is related to the two components arranged [the curriculum, and other reasons related to (school and family administration)] and with an average degree of saturation.

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