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Contributions of the Theory of Multiple Intelligence in Education who Encounter Difficulties in Learning Mathematics (calculus)

إسهامات نظرية الذكاءات المتعددة في تعليم ذوي صعوبات تعلم الرياضيات (الحساب)

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***Abstract**:*

This study entitled "Contributions of the Theory of Multiple intelligences in education who encounter difficulties in learning mathematics (Calculus)" aims to achieve the following objectives:

- Determine the extent Contributions of the Theory of Multiple intelligences in education who encounter difficulties in learning mathematics (Calculus).

- Shedding light on the theory of multiple intelligences, which

assumes that any individual possesses eight intelligences that operate independently.

-Determine of the possibility of taking advantage of education applications for the theory of multiple intelligence in the field of teaching for people with learning difficulties.

*The study was conducted on a sample of (**80**) students chosen voluntarily.*

For testing hypotheses of the study, the following methods were used: the list of multiple intelligences, whose psychometric characteristics have been verified. During this studies, the researcher adopted method, as well as

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*statistical analysis of program statistics (**SPSS 20**) adopting. the statistical means which are: calculating averages, standard deviations, coeffi (**T-test**).*

In the end, the study led to the following results:

-Multiple intelligences contribute greatly to the education who encounter difficulties learning mathematics (Calculus). * Corresponding author

***Keywords**: Contributions of the Theory of Multiple intelligences in education who encounter difficulties in learning mathematics (Calculus).*

ملخص:

لقد هدفت الدراسة الحالية المعنونة بـ"إسهامات نظرية الذكاءات المتعددة في تعليم ذوي صعوبات تعلم الرياضيات (الحساب)" إلى تحقيق الأهداف التالية:

-الكشف عن إسهامات نظرية الذكاءات المتعددة في تعليم ذوي صعوبات التعلم الرياضيات (الحساب).

-إلقاء الضوء على نظرية الذكاءات المتعددة التي تفترض أن أي فرد يمتلك ثماني ذكاءات تعمل بشكل مستقل.

- الكشف عن إمكانية الاستفادة من التطبيقات التربوية لنظرية الذكاءات المتعددة في مجال التدريس لذوي صعوبات التعلم.

وقد أجريت الدراسة على عينة تقدر بـ: (80) تلميذا تم اختيارهم بطريقة قصدية، ولاختبار فرضيات الدراسة تم تطبيق قائمة الذكاءات المتعددة، التي تم التأكد من خصائصها السيكومترية، وخلال هذه الدراسة تم الاستعانة بالمنهج الوصفي، كما تم استخدام في المعالجة الإحصائية البرنامج الإحصائي (spss 20)، حيث تم الاستعانة بأساليب إحصائية منها: المتوسطات الحسابية، الانحرافات المعيارية، اختبار (t-test).

وتوصلت الدراسة إلى النتائج التالية: تساهم نظرية الذكاءات المتعددة بدرجة كبيرة في تعليم ذوي صعوبات تعلم الرياضيات (الحساب).

الكلمات المفتاحية: نظرية الذكاءات المتعددة، صعوبات تعلم الرياضيات (الحساب).

1. Introduction:

The field of learning difficulties is one of the modern fields in the fields of special education due to the focus of scientific studies on it, and that is due to the scientific interest in people with special needs, as it provides them with appropriate programs that aim to develop their skills and help them acquire new skills that enable them to adapt and create a kind of balance they have, And invest it and develop it as strengths.

The problems of learning difficulties often appear in late childhood after enrolling in the school, as they appear in the field of academic education mainly, so they are known for the academic learning difficulties, which students face at

different class levels, and the term academic learning difficulties includes a number of difficulties for reading and writing, And the account.

The difficulties of learning the most prevalent account among children in primary school are to the extent that they represent the most important and common learning difficulties, and attracting human interest in its different patterns and trends.

The strategies of teaching students with the difficulties of learning the account depend on the aspects of weakness, neglected aspects of the strength they have, so the theory of multiple intelligence seeks to move from the traditional method of teaching and learning to the modern method that focuses on the discrimination of students in the visual and motor fields and shows their shows their talents in different fields.

The current study came to shed light on the contributions of the theory of multiple intelligence in teaching people with learning difficulties by answering the following question: **What is the Contributions of the Theory of Multiple intelligences in education who encounter difficulties in learning mathematics (Calculus)?**

2. Study Objectives:

- Determine the extent of the contributions of the multiple intelligences theory to teaching people with mathematics learning difficulties (calculus).
- Shedding light on the theory of multiple intelligences, which assumes that any individual possesses eight intelligences that operate independently.
-Determine of the possibility of taking advantage of educational applications for the theory of multiple intelligence in the field of teaching for people with learning difficulties.

3. The importance of studying:

The importance of the current study lies in its presentation of the theory of multiple intelligences as a modern perception of human intelligence, as the application of its concepts in teaching people with learning difficulties leads to meeting their individual needs and differences in academic learning, through the teacher diversifying the educational situations and activities of one academic unit so that each student can benefit Among the situations and activities that correspond to its various intelligences.

4• The procedural definition of study terms:

4.1.Multiple Intelligences:

Multiple intelligences procedurally refer to: the set of skills that enable a person to solve problems in a new way, and is measured by the total score obtained by the study sample members on the list of multiple intelligence.

4.2.Difficulties for learning mathematics(calculus):

The difficulties of learning mathematics (calculus) procedurally indicate: those difficulties that limit the ability of students to learn mathematics (calculus), and are measured in the total degree that the study sample members receive in the achievement test in mathematics (calculus) used in these study.

4.3.Primary stage:

It considers that the elementary stage is part of the education system that is the same as part of a greater system, which is the community system, which this education serves, and achieves its goals and works in it and has a time during it, and it constitutes theoretically and practically an integrated organic unit in which we find the stages of education and its goals all, and the primary stage has set Diagnostic with the sample of students who study in the fifth year of primary school.

5.Terminological definition of study terms:

5.1.Multiple Intelligences:

Gardener believes that a person possesses at least seven distinct units of mental functions, and each unit is called 'intelligence', and also confirms that these separate intelligences possess their own group of capabilities that can be observed and measured, and these intelligences are: linguistic intelligence, Sports logical intelligence, visual intelligence, musical intelligence, physical-motor intelligence, interactive intelligence, self-intelligence. **(Al-Saidi and others, 2011, p 239)**

-Types of multiple intelligences:

Below is a presentation of the types of multiple intelligences, according to what Gardner suggested:

-Linguistic Intelligence:

It is the ability to deal with linguistic structures, verbal and written formulation of words at a high level. **(Armstrong, 2000, P 125)**

-Logical Mathematical Intelligence:

This type is represented by the ability to think inferentially, deductively, and scientifically, as it is represented in thinking about the causes and influential links and in understanding the relationships between actions, topics, and ideas. It

also includes computational abilities, discovering relationships, realizing them, then applying them and forming them, as well as It includes the individual's ability to use numbers, abstract patterns, logical relationships, and classification, so that the individual is able to estimate quantitatively, perceive probabilities, and perform complex logical processes.

Piaget research has confirmed the development of this type of intelligence in children and included the ability to count or number them, as the independence of this type of intelligence has confirmed about the rest of the other types, and the evidence for this is the emergence of this type in some of the naphtheists who can do In the absence of the other drugs. **(Qasim, 2008, p 45-46**)

-Intelligence Musical:

In the right part of the brain, certain parts play an important role in the presence of an individual's musical sense to be able to perceive and taste it, and distinguish between their various types and melodies, in a way that creates musical pleasure and emotional euphoria. **(lens, 1997, p 45)**

This type of intelligence is the ability to feel rhythm, sound and melody. It is embodied in the accuracy of this sense of sounds, melodies and melodies, as well as the ability to perform and compose music.

Students can be assisted in developing this type of intelligence using cassette tapes to listen to or sing with them and learn new songs. **(Abu Hammad, 2007, p 185)**

-Intrapersonal intelligence:

It is the ability to perceive and distinguish moods of others, to realize and understand the motives and feelings of others, as this intelligence includes sensitivity to facial, sound and gesture expressions, the ability to distinguish between indicators of social relations and the ability to respond appropriate to these indicators in a practical way. **(Gardner, 1997, p 172)**

-Intrapersonal Intelligence:

It is the ability to know the self. This intelligence relates to the knowledge of the characteristics and self -characteristics. It requires the ability to communicate with the individual with himself, with its strengths and weaknesses such as the businessman and the religious, ensuring sensitivity to the self, creating an accurate image of it, awareness of feelings, motives, emotional states, the ability to self -control and understand self -esteem. The strategies of implicit intelligence are self -meditation and the world linking personal

expertise, moments of setting goals and emotional moments of test time**. (Majeed, 2009, p 77)**

-Bodily Kinesthetic Intelligence:

It is the potential energy, efficiency and experience of the individual's use of his body as a whole or a part of it in learning, expression of self, ideas, feelings, and problem solving, in a harmonious manner with the mental capabilities of the individual such as: (the actor- the imitator- the clown- and the athlete- and the dancer. This type includes qualitative physical skills, such as synergy and balance And skill, strength, flexibility, speed and sense of the movement and position of the body.

Research and studies indicate that children's products are better when learning is done through play and practical activities that employ body movements, they play or build their own world, and they learn skills that may not be available in the classroom and these children are distinguished by their excessive activity and normal rows are punishment environments They hurt their abilities and talents. **(Abu Hammad, 2007, P 184-185)**

-Natural Intelligence:

It is the ability to distinguish and classify living organisms (plants, animals and insects) as well as inanimate objects (rocks and clouds) and includes allergies and awareness of the changes that occur in the surrounding environment. This intelligence is clear to farmers, fishermen, botanical, animal, geology, antiquities and microscopes. (**Gardner, 1996, P 46)**

5.2.Definition of difficulty learning mathematics (calculus):

'Nabil Abdel -Fattah Hafez' believes that the difficulty of mathematics (account) means: “disturbance of the ability to learn mathematical concepts and perform the related operations, as it indicates difficulty or inability to perform basic mathematical operations: combination, subtraction, beatings, division and the consequent problems Study in fractures, algebra and engineering, and this difficulty is called 'Dyscalculia.' **(Muamariya, 2005, p 45)**

-Types of mathematics learning difficulties (calculus):

Hafez Nabil Abdel -Fattah sees that there are six types of learning difficulties in mathematics, as follows:

-Verbal Dyscalculia:

Where the child finds it difficult to understand the facts or mathematical issues when it is presented orally and finds it difficult to express it.

-Paractognessctic dyscalculia: Where the child finds himself unable to deal with sensory perceptions in a symbolic way or otherwise to serve the accounts of the account.

-Graphical Dyscalculia: It indicates the difficulty of writing sports symbols. **(Hafez, 1998, p 80)**

- Deognstical Dyscalculia: It indicates the difficulties related to the child's ability to understand mathematical ideas and relationships and make mental accounts for students difficult to understand and learn the language of mathematics

-Operational Dyscalculia: And when the child finds it difficult to perform the four arithmetic operations, he collected instead of offering or dividing instead of beating.

-Lexical Dyscalculia: It refers to the problems of reading sports symbols (numbers, algebraic symbols, signs of sports operations). (**Hafez, 1998, p 81)**

6.Applied framework for study:

6.1. Applied study:

-Steps Applied study: The exploratory study was conducted **according to the following steps**:

The survey was conducted according to the following steps:

•**Detection stage**: A series of half-time interviews with primary school teachers were conducted, the purpose of which was to identify the category of pupils who were observed to have problems and difficulties in learning mathematics. The interview axes included the following: (Prevalence of mathematics learning difficulties (calculus), types of mathematics learning difficulties (calculus), levels at which a high percentage of mathematics learning difficulties (calculus) exist).

•**Diagnostic phase:** School books, socio-economic level form, "John Raven" sequential matrices test. Raven (to measure pupils' IQ).

•**Survey sample**: After interviewing the teachers of the first and second phases, most teachers combined that it was the fourth and fifth grades that saw the greatest proportion of math learning difficulties (calculus).

•**Diagnosis of pupils with math learning difficulties (calculus**): the following tests were relied on:

We applied an achievement test in mathematics (arithmetic), then the John Raven's Progressive Matrices test was applied to an initial sample estimated at: (140) male and female students in four (04) primary schools. (08) students were

excluded due to their withdrawal from The study thus became an estimated sample size of: (132) male and female students.

After applying the "John Raven" sequential matrix test and monitoring its grades, pupils with lower-than-average IQ rates, i.e. pupils with a lower score of 100 (25), were excluded from this group and pupils with a lower rate of 5/10 were selected for the math test.

-The test of exclusion: after consulting the health book of pupils who have been restricted from the test of external distancing between intelligent and attainment, consulting the results of the social and economic level form, after interviewing some teachers, and some of the pupils' parents, the results of the form have been excluded. (12) cases, where there are (05) cases with social problems and deplorable conditions, and (07) cases with certain sensory disabilities (auditory, visual)

- or motor or emotional disorders, asthma, small intestinal disease, thus the total sample size became (120) pupils with mathematical difficulties (calculus).

-After completing the exploratory study's reasoning, the researcher identified the final study sample, estimated at: (120) pupils with mathematical learning difficulties (calculus).

- The survey was applied to a sample estimated at 40 pupils with math learning difficulties (calculus).

6.3.Exploited study tools:

-Calculation test in mathematics:

-Sicomatic characteristics of the achievement test in mathematics in the Algerian environment:

- Calculation of test honesty: The factors of the sincerity of this test were calculated in a peripheral comparison method, and by using the statistical program (SPSS20), it was found that the calculated value (T) amounted to (11,02), which is a statistically significant value at the level of significance (0.01 = α), and from it the test is characterized by honesty.

- Calculation of test Stability: The stability of the test was calculated by the midterm method, and using the statistical program (SPSS20), it was found that the testing coefficient of the test reached (0.78). It is a statistically significant value at the level of significance (0.01 = α), and from it the test has stability.

-Acquisitional tests in mathematics : The two researchers have applied the basic skills test in the mathematical and adaptive mathematics mainly from the Jordanian image prepared by Prof. Radi Al -Waqfi (2012), where the two researchers modified the test paragraphs and presented them to a group of inspectors for primary education in the state of M'sila**.**

-The psychological characteristics of the achievement tests of mathematics in the Algerian environment:

Calculation of honesty:

The authenticity of the math tests was calculated in an internal consistency manner, i.e, the correlation factors between the scores of each part of the test and the overall grade, and using the statistical program (spss20) the following transactions were reached:

Table (01): It shows the sincerity of achievement tests

in the manner of internal consistency

Activity 9	Activity 8	Activity 7	Activity 6	Activity 5	Activity 4	Activity 3	Activity 2	Activity 1	
0.63	**0.58**	**0.49**	**0.38**	**0.34**	**0.47**	**0.56**	**0.32**	**0.044**	**Correlation coefficient between exercise and overall score**

We note from Table (01) that the correlation transactions are statistically significant at the level of significance (0.01) and (0.05), and this is evidence that the test is honest.

-Calculation of test Stability: The stability of the achievement test in mathematics was calculated by re -applying the test for a period of (15) days, and by using the statistical program (SPSS20), stability was reached by: (0.62), which is a statistically significant value at the indication level (0.01).

-Reliability: The reliability of the achievement test in mathematics was calculated by re-applying the test with a time limit of **(15)** days, and using the statistical program (spss20), an estimated reliability of **(0.62)** was reached, which is a statistically significant value at the level of **(0.01)**.

-Sicomatic properties of the multiple intelligence menu:

- Calculation of honesty:

- Calculation of sincerity of internal consistency: The sincerity of the list of multiple intelligences has been calculated in the manner of internal consistency, which is based on the correspondence of the links between the total degrees of each axis in the total degree of the scale as a whole with the 'Person' laboratory as shown in Table (**02**):

Table (02): Shows the correlation matrix of the axes of the list of multiple intelligences with degree College for the list as a whole

The list as a whole	Dimensions	
0,944**	Correlation coefficient	**Linguistic intelligence**
0,000	Significance level	
40	Sample size	
0,756**	Correlation coefficient	**Musical intelligence**
0,000	Significance level	
40	Sample size	
0,937**	Correlation coefficient	**Logical-mathematical intelligence**
0,000	Significance level	
40	Sample size	
0,943**	Correlation coefficient	**Spatial intelligence-Visual**
0,000	Significance level	
40	Sample size	
0,924**	Correlation coefficient	**Physical-motor intelligence**
0,000	Significance level	
40	Sample size	
0,898**	Correlation coefficient	**Interpersonal**
,000	Significance level	

40	Sample size	**intelligence - subjective**
0,960**	Correlation coefficient	**Social intelligence**
0,000	Significance level	
40	Sample size	
0,975**	Correlation coefficient	**Natural intelligence**
0,000	Significance level	
40	Sample size	

**** Links are a function at the significance leve (α = 0.01)**

We note from Table (**02**) that the value of the correlation between linguistic intelligence and the total score of the list as a whole was (**0.940**), while the correlation between the total score of musical intelligence with the total score of the list as a whole was (**0.75**), and for the correlation of the total degree of logical-mathematical intelligence with the total score of the list as a whole was (**0.93**), while the correlation between the total score of spatial intelligence - visual with the total score of the list as a whole was (**0, 940**), and for the correlation of the total score of physical-motor intelligence with the total score of the list as a whole was (**0.920**), while the correlation between the total degree of personal intelligence - subjective with the total score of the list as a whole was (**0.890**), and for the correlation of the total score of social intelligence with the total score of the list as a whole was (**0.960**), while the correlation of the total score of natural intelligence with the total score of the list as a whole (**0, 970**), and from this set of correlations and since they are all positive and statistically significant at the significance level (**0.01 = α**), we can judge this list as true.

-Stability account: The stability of the multiple intelligence list was calculated in two ways:

-Magnary retail:

The midterm correlation was calculated, which amounted to (**0.93**) and compensation in the corrective equation of "Spearman Brown" in the language of the total value of stability (**0.96**). With high stability as shown in Table (**03**):

Table (03): It shows the stability of the list of multiple intelligences

in the mid -retail method

Division link	*Total stability coefficient 'Spearman Brown'*	*Stability coefficient using 'Gateman'*
0.963	***0.981***	***0.974***

**** Links are a function at the significance leve (α = 0.01)**

-Inside the internal consistency:

This method is based on calculating the rate of expressions of phrases between them through the stability coefficient of' for the Falfa Kronbach ', where it reached (**0.97**), and this value does not differ from the value of stability that was calculated in the mid -retail method as shown in Table (**04**):

Table (04): shows the reliability of the multiple intelligences

list using the internal consistency method

Number of phrases	**Alpha Cronbach**
80	0.97

-The basic study:

- Study curriculum: Due to the nature of the study, the descriptive approach was relied upon.

-Study limits: The current study is determined by the following:

-Human borders: This study is humanly determined by a sample of the fifth year of primary school students with the difficulties of learning mathematics (calculus).

-Space limits: This study is spatially determined by some primary schools.

Space limits: This study is spatially determined by some primary schools in the state of M'sila.

-The basic study sample:

A intentional sample has been chosen due to the nature of the study, which is one of the non -probable samples that the researcher chooses to achieve his purpose as much as he needs information, that is, the researcher selects the study sample freely on the basis that it achieves the purposes of the study through the availability of information necessary for the researcher in members of this sample, and it has been done Its diagnosis in the exploratory study by applying the following companies: the stimulus between intelligence and achievement, the test of exclusion, and it was formed from the rest of the members of the total sample estimated by: (**120**) students and a student, and after taking (**40**) students and a student in the exploratory study, (**80**) remained a student and a student The basic study was applied to them, and thus the basic study sample is estimated at: (**80**) pupils and a student with mathematics learning difficulties (calculus).

-Basic study sample:

A deliberate sample was chosen due to the nature of the study, which is one of the unobservable samples that the researcher chooses to achieve his purpose as much as he needs information, that is, the researcher chooses the study sample freely on the basis that he achieves the purposes of the study through the availability of the necessary information For the researcher in the members of this sample, it was diagnosed in the exploratory study by applying the following companies: motivation between intelligence and achievement, the test of exclusion, and it was formed from the rest of the members of the total sample estimated by: (**120**) male and female students, and after taking (**40**) students And students in the exploratory study, (**80**) remained students and students to whom the basic study was applied, and thus the basic study sample is estimated at: (**80**) students and students with difficulties in learning mathematics (calculus).

Table (05): It shows the difference between the arithmetic average of the sample and the hypothesis of the list of multiple intelligences

the decision	The level of significance	Degree of freedom	t	The difference between averages	SMA	Theoretical average	Sample volume	Total marks
D is at 0.01	0.00	79	38.7	3.65	8.6	15	80	Linguistic

								intelligence
Non -d	0.51	79	-0.65	-0.08	14.9	15	80	Musical intelligence
D is at 0.01	0.00	79	32.06	3.27	18.27	15	80	Logical-mathematical intelligence
Non -d	0.17	79	1.3	0.42	15.42	15	80	Spatial intelligence-Visual
D is at 0.05	0.02	79	2.2	0.55	15.55	15	80	Physical-motor intelligence
D is at 0.05	0.04	79	2.06	0.662	15.66	15	80	Interpersonal intelligence - subjective
D is at 0.01	0.00	79	33.23	3.987	18.98	15	80	Social intelligence
D is at 0.01	0.00	79	45.57	4.012	19.01	15	80	Natural intelligence
D is at 0.01	0.0	79	17.38	16.475	18.65	120	80	Total marks

Through the results shown in table (**05**), we notice and based on the difference between the arithmetic average of members of the study sample and the theoretical average of the scale on the axes of the list of 'multiple intelligence It contains the value of 'T' (**38.70**) and the third axis in which the value of 'T' (**32.06**) and the seventh axis in which the value of 'T' amounted to (**33.23**), while the value of 'T' was in the eighth axis (**45.57**), while the axes that came A sign of Alpha (**0.05**) was represented in the fifth axis in which the value of 'T' (**2.24**) was reached and in the sixth axis in which the value of 'T' (**2.06**) amounted to, while we find that there are two axes (the second and fourth) in which the value of 'T' came Not statistically, generally, given the value of the "T" difference for the test as a whole (the total degree) has reached (**17.38**), and based on this, the degree of contributions of multiple intelligences in teaching people with great

mathematics learning difficulties (account), and the percentage of confirmation of this result is **99%** with the possibility of making a mistake by **1%**.

-Interpretation of the study results:

The results of the study proved that multiple intelligences contribute greatly to teaching people with mathematics learning difficulties (calculus), and this is consistent with the study of both Karson (1995), 'BELTZAM, 1995),' Al -Faraz and Siasz (Elfers* Seitz, 2001), 'Omar Muhammad Ali Al -Akkari' (2010), which has proven all the effectiveness of intelligence in teaching and teaching people with difficulties of learning mathematics (calculus).

The literature of theoretical heritage in the field of learning difficulties in general indicates that mathematics learning (calculus) is in particular that teaching methods for this category depend on three strategies:

-The method based on the analysis of the educational duty or the educational task: This method assumes that there is no defect or a growth deficit among those with learning difficulties, and that their problem is the lack of training. It is intended to divide the skill into training units or secondary skills.

-The method of training based on operations: This method assumes that the student suffers from a developmental deficit, and then students are trained to improve developmental capabilities, on the assumption that training will increase the capacity to acquire academic skills, and depends on the diagnosis and treatment of the difficulties of learning mathematics in this case on identifying and analyzing The ability and shortcomings of the learner in the learning skill.

-Combining training in operations and task analysis: It depends on integrating the basic concepts of the previous two methods, and the strategy is concerned with assessing the student's capabilities and difficulties, and to analyze the task and know the skill that must be developed.

From the above, it turns out that these strategies are based on treating aspects of weakness and impotence and neglecting the aspects of strength in people with learning difficulties, and therefore the strategy that counted it is more appropriate and appropriate for this category and that will focus on aspects of strength that they have represented in their intelligence according to the theory of multiple intelligence The results of previous studies that have proven effective in that category.

And from it the theory of multiple intelligences in particular can help teachers identify and distinguish aspects of a student with the difficulty of learning mathematics and his favorite learning method, meaning that the evaluation is comprehensive multi -dimensional so that it includes the various areas of intelligence, and this information can benefit as a basis for deciding on the types of appropriate interventions It is appropriate for this group of students, and among the treatment strategies according to the multiple intelligences in teaching mathematics, we find:

-**Language therapeutic strategy**: such as the use of verbal issues and problems.

-**The logical-sports therapeutic strategy**: determining the calculations on a straight piece, as well as the spelling of words can be coded using other types of numbers systems (for example: customize a number to meet a letter according to its place in the series of satire letters: a = 1, b = 2 ... etc. **(Thomas, 2006, 152)**

-**Visual spatial therapeutic strategy**: drawing certain engineering images and forms, and put them in different places and positions, and you can also imagine spelling words and identifying numbers visually where students get acquainted with an interior or another mental screen in the eyes of their minds, and during the study students put words and numbers on Mental screen, while during the test, they turn into their internal sport 'request for help **(Thomas, 2006, 152)**

-**Personal therapeutic strategy**: choosing certain rates and fractures, and searching for rates and fractures equivalent to the individual learning strategy method.

-**Social therapeutic strategy**: distribution of cards and numbers according to the number of students in the classroom and group work to solve some mathematical issues and problems through the cooperative learning strategy.

-**Musical therapeutic strategy**: chanting musical and poetic pieces consisting of several tones (3 or 4 tones, for example).

-Recomendations:

- That teachers diversify educational activities inside the classroom for a single school unit in a manner commensurate with the multiple intelligence of students so that each student can benefit from the activity that corresponds to his abilities.
- That the evaluation of people with learning difficulties depend on multidimensional methods and methods, so that it covers all aspects of one individual.
- Teaching methods contain activities that develop special abilities and talents for some people with learning difficulties.
- Training teachers to use programs and strategies based on educated intelligence theory in teaching people with sports learning difficulties (calculus).
- Make more studies on multiple intelligences common to other categories of students and measure their relationships with other variables.
- The curriculum should contain activities adapted to and with difficulties in learning mathematics.
- Mathematics curricula should contain activities compatible with multi-intelligent people.
- The composition of teachers on how to deal with the superior and those with learning difficulties.
- **References:**

1. Abu Hammad Nasir al -Din. (2007). Intelligence and personal standards field app: 1 floor. Amman: House of Modern Thought.

2. Al -Saeedi Ahmed and others. (2011). Ten multiple intelligence patterns and their relationship to achievement in chemistry among the twelfth grade students. Journal of Educational and Psychological Sciences. P 2. M. 12. Oman.

3. Armstrong, Th. (2000). Multiple Intelligence in the Classroom, VA1.Association For Supervision and Curriculum Development.

4. Adis Muhammad Abdul Rahman. (1997). Intelligence from a new perspective. 1st. Amman: Dar Al -Fikr.

5. Gardner Howard. (1996). Les Intelligences multiples. Paris: traduit par mathematics. vol. 101.

6. Hafez Nabil Abdel -Fattah. (1998). Difficulty learning and therapeutic education. Cairo: Zahra Al -Sharq Library.

7. Jaber Abdel Hamid Jaber. (2003). Multiple intelligences and deepening understanding. D. Amman: Dar Al -Fikr Al -Arabi.

8. Muammariya Bashir. (2005). Academic learning difficulties for male and female students of the first and second phase of primary education. Arab Psychological Sciences Network. A 8. Algeria.

9 . Ozi Ahmed. (1999). Teaching and learning to approach multiple intelligences, 1st floor. Rabat: The Moroccan Company for Printing and Publishing.

10. Qasim Naji Muhammad. (2008). Individual differences, psychological and educational evaluation. 1st. Alexandria: Dar Al -Fateh.

11. Regarder A. (1997). Howard Gardner : Les formes de l'intelligence. Paris: ED Odel Jaco.

12. Ryan Adel Attia. (Saudi Arabia). Multiple intelligence patterns of high school students. Al -Aqsa University Magazine. Maj 17. Palestine.

13. Thomas Armstrong (2006). Multiple intelligences in the classroom. Translated by Dhahran National Schools. 1st. Dammam: The Educational Book House.