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Super mental arousal among middle school students (distinguished and ordinary) in Najaf governorate

Dr. Fadhil M. Yousif AL-Mayali

University of Kufa - College of Education

*Corresponding author email: haydarn.alshawi@uokufa.edu.iq

Lecturer. Zahraa Abdul-Mohammed Al-Lahibi

University of Kufa - College of Education for Girls

Abstract---The current research aims to measure the variable of superior mental arousal among distinguished and ordinary students in the preparatory stage in the province of Najaf, as well as to know the differences in measuring the variable according to (study category, gender, school stage). (400) male and female students as a sample for the research distinguished male and female students, (100) students from regular schools and the same number of females in a stratified random manner. After applying the scale to the sample members by researchers and collecting data using the statistical package (spss) to analyze those data and using statistical means (percentage, percentage weight, arithmetic mean, standard deviation, Pearson correlation coefficient) the following results were obtained: 1- The sample is characterized by high mental excitability. 2- There are statistically significant differences in the level of super mental arousal between the distinguished students and their normal peers in favor of the ordinary students. 3- There are statistically significant differences in the level of super mental arousal according to the gender variable in favor of females. 4- There are no statistically significant differences in the level of super mental arousal according to the stage variable between the fourth and fifth stages.

Keywords---mental, middle school, distinguished, ordinary.

Research problem

Distinguished individuals have more characteristics than their peers in regular schools. Research has tried and is still trying to identify and discover them in order to rely on them in the process of identifying and providing appropriate programs. About these distinguished individuals. There are many and differing

theories in presenting the characteristics of these distinguished individuals. One of the theories that provided an explanation for the characteristics of these distinguished individuals is the Theory of Positive DisintegrationTPD, which was adopted by Dabrowsky (Al-Tantawi, 2017).

One of the important concepts dealt with by this theory is the concept of super arousal, which refers to an enhanced and intense mental activity that is higher than usual, which is characterized by some individuals, as it focuses on excessive sensitivity or excessive reaction to external and internal stimuli facing the individual (Wirthwein & Rost, 2011, Dabrowsky points out that individuals who are characterized by a high response to stimuli by having patterns of super-excitability, including super-mental arousal, are more capable of forming an integrated personality in terms of performance than their peers who do not possess these traits, in terms of performance. They possess these characteristics (super arousal patterns) to obstacles, difficulties, and interferences, which are considered as a manifestation of psychological super arousal, and these obstacles may continue with the individual for a period of time not short (Vuyk. 2016).

Dabrowski points out that the concept of super mental arousal is closely related to the growth and development of personality as well as neurotic diseases represented by depression, anxiety and tics. Karpinski, Kolb, Tetreault & Borowski (2018) see that individuals with super mental arousal may be exposed to psychological disorders. In addition to certain physiological disorders. (Karpinski et al., 201844, Stevens confirmed this by referring to individuals with hyper-excitability as having problems affecting them. (Stevens. 2012). The researchers noted that there are indicators confirming the presence of mental super-stimulating excitement among students, specifically distinguished students, which contribute to determining their impression and forming the view they hold about the educational situation in which they are.

It has been shown from the above that individuals with high mental arousal are characterized by advanced and intense mental development, and this is what prompted the researchers to sense the existence of a problem that necessitates the need to identify the variable of super mental arousal Thus, the research problem is determined by the following question:

- What is the extent of super mental arousal among students in general and distinguished students in particular?

Research importance

The importance of the research lies in the mental arousal variable and its role in the performance of distinguished and ordinary students, the importance of measuring it and the psychological, cognitive and educational variables associated with it, and the importance of preparatory students in general and distinguished students in particular. The importance of studying the category of distinguished students in developing societies increases for two reasons, the first of which is the need of these societies to speed up the process of comprehensive national development, which is primarily responsible for its youth and students with distinguished abilities, and secondly, the high percentage of this age group

in society compared to the rest of the other age groups (Al-Tamimi, 1999). Arousal is an important factor in the development and integration of an individual's personality, as it contributes to providing the opportunity for his physical, emotional and mental energy to emerge and grow. (Al-Azmi, 2015). From previous studies, we note that super arousal allows individuals to practice multiple types of activity, organization, research, investigation and knowledge, and this is reflected in their growth and brings positive results for them and society as a whole.

Research objectives

The current research aims to measure the super mental arousal of the distinguished and normal students, and to know the differences in this variable according to (specialization, gender, grade).

Research limitations

The current search is determined by the following determinants: A study of the superior mental arousal of distinguished students and their ordinary peers in the middle stage during the academic year (2021-2022) in government schools for distinguished students and ordinary students in the center of Najaf Governorate in the morning study only.

Define terminology

Super mental arousal

Super mental arousal is the activities of the mind and thinking about thinking in gifted and talented individuals. Learners who enjoy this arousal are always thinking, searching for answers and deep ideas, and sometimes feel the need to get an answer from school when questioned by their teachers, and they consider this a challenge and are characterized by the individual who is overexcited. (Dabrowsky, 1977)

Distinguished students

Definition of the Iraqi Ministry of Education (1994): They are students studying in distinguished schools, and they were accepted there on the basis of their obtaining the highest totals in the general examinations for primary studies, as well as their success in performing two tests, the first to measure mental ability and the second to measure achievement in the subjects of Arabic language, social sciences, English language, mathematics and science.

Normal students

They are students studying in secondary and preparatory schools in which successful students from the third intermediate (ninth) grade are accepted without undergoing any test or pre-set conditions. General introduction to the theory of positive divisions and the concept of super excitations: Dabrowski (1902-1980) touched on the upbringing of the gifted in his theory of positive divisions in two chapters of his book Guiding the Gifted and the Distinguished.

Dabrowski mentioned for the first time the term “Overexcitability” translated from the Polish language (Nadpobudliwość) (Angela, 2010, 2010). Pejoski also contributed to the second chapter of the book *Development Potential*, in which he introduced the concept of overexcitability as one of the best indicators of talent and creativity. (Piechowski, 1979).

Dabrowski lived in a period of turbulent crises in the history of the Polish people between the first and second world wars, and his childhood memories were the most influential in shaping his personality and his view of the world, as he saw the faces of the dead near his home. The faces are a mystery to him, so he spent his life searching for an answer. It is possible that the death of his brother as a result of meningitis, the loss of his first wife due to a terminal illness, the bad treatment he received during his imprisonment twice at the hands of the communist and Nazi authorities in Poland, and the loss of his personal rights by the Nazi regime affected the formation of his personality and his vision of man. Where Dabrowski was one of the few psychiatrists who lived in Poland and survived the Nazi occupation, and after his academic institute and private clinics were confiscated and prevented from practicing education and publicly denounced his work, he immigrated to Canada to spend the last part of his life teaching (Kaminski, 2002, Nelson, K, 1992)

Dabrowski based the theory of positive divisions or positive disintegration on a fundamental study of intellectual and creative experiences through analyzing the biographies of prominent personalities. (Piechowski 1979) In 1967, Dabrowski met Michael Piechowski and became a translator for Dabrowski's work. From 1969 to 1972, Dabrowski received a three-year grant from the Canadian Council, which enabled him to issue the first version of the concept of super-excitations in a study published by him entitled *Psychological Bases of Self-Mutilation*. This study was followed by another study in Warsaw. Dabrowski noted that all members of the sample are characterized by tense and highly responsive ways to stimuli (Dabrowski, 1967).

Basic components of Dabrowski's positive divisions theory

Dabrowski asserts that there are seven basic components of this theory, which are sequentially (super arousal, conflict, plurality of levels, growth potential, evaluation, internal psychological milieu, and personal idealism). The individual, (Dabrowski, 1977), as super-excitability represents a natural preparation that is expressed by a high sensitivity to stimuli and reactions that exceed the limits of excitability, the reaction that lasts more than the rate or expected, and the reaction to express the emotional experiences of the nervous system, which refers to the ability of The individual's increasing response to different stimuli, (Piechowski, 1999). (Dabrowski, 1972) believes that super-excitability is a type of intense internal conflict, and it is itself a motive for development and a main reason for the growth of conflicts at the social level. and expressing their own selves, (Piechowski & Calangelo, 1998). (Piechowski 1979) Dabrowski asserts in his theory that there are levels of growth, which fall into five developmental levels of personality, each of which deals with three aspects:

- Feeling of self.
- Feeling about others.
- Feeling the direction of values (Al-Sulaiman, 2016).

These three aspects accompany the stages of personal growth at each of its five gradual levels (self-interests, formative growth, self-planning, group values, and achieving personal ideals), as these levels are considered a positive indicator of growth that begins to develop based on several psychological, mental and social variables that pass through The individual, which results in divisions and internal conflict that occur to him, which constitutes important pillars of the process of growth through these conflicts and positive internal psychological divisions within these five levels (Dabrowski, 1977)

Overexcit abilities, OES

Dabrowski (1964) defined arousal as a superior ability that appears in the form of a great reaction to internal and external stimuli through an overwhelming desire to learn, he called it (OES) Over-Excitabilities, or Super Stimulate Abilities that are expressed through Vivid imagination, physical energy, hypersensitivity, emotional intensity. It has five forms: psychomotor, sensory, mental, imaginative, and emotional. The manifestations of OES are considered an indicator of the developmental potential or emotional growth of students and are an indication of their presence. That the emotional factor is at least as strong as the other factors themselves until we reach a higher level of arousal that is expressed through the environmental interaction that is composed of three main pillars (specific abilities and talents, and a strong engine towards independent growth). Bouchet & Falk, 2001). Pejoski pointed out that each type of super-excitability is a stimulating aspect of mental function and a pattern of experiences, and a channel through which colors, structures, insights, perceptions, and flows of activities and life situations pass, and each of the five super-excitations has distinct components and a specific style. (Nervous System). Each type of hyper-excitability is a psycho-functional domain of hyper-responsiveness (Piechowski, 2006).

Previous studies

- Domroese (Domroese, 1993): The study was conducted in the United States, and the target of this study was three groups of students (gifted - close to gifted - non-gifted), where the students were placed in the groups based on their performance on the Ravens progressive matrix, to test their cognitive abilities, and the Io test (Iowa), related to basic skills, and the sample size in each group was (25) gifted, (27) close to the gifted, (30) non-talented, and after taking the test using the Questionnaire-OEQ1 (Overexcitability) scale, it was found in the results of the study in its results. That there are no statistically significant differences between OES patterns among the study sample.
- Miller, Silverman, and Falk, 1994: The study was conducted in the United States, where the study targeted gifted seniors and a group of non-gifted graduate students, and the sample size was (41) gifted adults, (42) non-gifted adults. There are differences and differences due to the gender factor between the subjects, where the females reached a higher level than the

males in emotional arousal and hypersensory arousal, while the researchers found that the gifted sample got a higher level than the non-gifted graduate students in the extreme emotional arousal and arousal. Super mental.

- The Treat Study (Treat, 2006): Super-excitability of gifted students according to gender and population variables. This study was conducted at Midwestern University in Indiana, USA, and aimed to know the overexcitability of (100) gifted male and female students according to the variables of sex and residence. II), and the results were extracted using the (SPSS) package. It found that there were statistically significant differences for emotional and sensory arousal among the female students who got higher degrees than the students, and the students scored a higher level in mental, imaginative and motor arousal.
- Yakmaci-Guzel (2008): The study was conducted in Turkey, Istanbul, and aimed to compare a sample of (500) tenth grade students who were gifted, divided into: above average, below average and after taking the test using the Questionnaire-OEQ1 (Overexcitability) scale. Overexcitability (OES) for gifted students.
- (Al-Azmi, 2015): The study was conducted in Kuwait, and aimed to identify the relationship between the patterns of super-excitability and some dimensions of personality among gifted students and their ordinary peers at the secondary stage in the State of Kuwait. In its results, there are statistically significant differences between the patterns of overexcitability (OEs) in favor of gifted students.

Aspects of benefit from previous studies

- Use in formulating the research problem and its objective.
- Reviewing the most important recommendations of previous studies, starting with the current research in the light of those recommendations, as well as writing the importance of the research, the necessity of conducting it
- Going deeper into the theoretical framework through what the previous writers wrote about mental arousal and the theories that explained it.
- Benefiting from knowing the size of the community and the sample for each study and comparing it with the population and sample of the current research in order to obtain the best possible percentage for generalizing the results.
- Seeing previous research tools and how to build them and achieve their psychometric properties and benefit in building the current research scale as well as the number of possible paragraphs that are appropriate to the mental level of the sample members.
- Taking advantage of the statistical methods used previously and trying to apply some of them to find the results of the current research in the light of the data that are contained in the results chapter.

Research Methodology

The descriptive research method was used in the current research procedures, and this method is one of the scientific methods that are used in the accurate

description of the characteristics of individuals (psychological, social, cultural, physiological), groups or certain fields and interests.

Research community and sample

The current research community consisted of all distinguished preparatory students and their ordinary peers in the center of the city of Najaf in its scientific and literary branches for the fourth and fifth grades and for both types, for the academic year (2020/2021) for the morning shift only, while the research sample consisted of (400) male and female students distributed among (6) Schools in Al-Najaf Al-Ashraf Governorate. In selecting the applied research sample for the ordinary, the researchers relied on the stratified random method, and relied on the intentional method in choosing the applied research sample for outstanding students according to the variables (gender - specialization - school stage) and as follows:

- The schools of the distinguished students and their ordinary peers were chosen for the literary and scientific specialization and for both types.
- Four schools were selected from ordinary students and two schools from distinguished students.
- From each section specified in item (1), close numbers of students from the literary and scientific branches were selected.
- From each section specified in item (2) above, a number of male students and a number of female students were selected equally, as shown in Table (1).

Table 1

The applied research sample is distributed according to a distinct variable - normal, gender, and school stage for the academic year 2020

the total	Specialization and stage				sex		The school	T
	fifth literary	fifth scientific	fourth literary	fourth scientific	feminine	Men tion		
50			25	25	50	0	p .Zainab the Great	1
50	25	25				50	p .Dr. Inad Ghazwan	2
50			25	25		50	p .the saved Board	3
50	25	25			50		p .Faith	4
100	0	50	0	50		100	Th .Distinguished	5
100	0	50	0	50	100	0	Th .Featured	6
400	50	150	50	150	200	200	the total	7

The research tool

The researchers conducted a review of studies and literature on the research tool in mental arousal, but no suitable foreign scale was found, and Arab studies such as Al-Mutairi study (2008) and Al-Yousifi study (2015) were reviewed. Accordingly, a tool was built to measure the concept of super mental arousal among

distinguished middle school students and their ordinary peers according to the following steps:

- Determining the theoretical premises by constructing the Super Mental Arousal Scale.
- Preparing the paragraphs of the super mental arousal scale.
- Response alternatives and scale correction.
Experiment clearly helps scale.
- Preparing the instructions for the scale.
- The validity of the paragraphs.
- Statistical analysis of the paragraphs of super mental arousal:
This analysis included ensuring the validity of the scale by presenting it to a group of experts and arbitrators, who expressed their opinions in maintaining the same number of paragraphs and modifying the wording of some of them. From (50) paragraphs.

Statistical means

The researchers used the Statistical Package for Social Sciences (SPSS) in construction procedures and in analyzing the research results. The statistical methods were as follows:

- T-Test: This statistical method was used to extract item discrimination for both scales.
- The Pearson Correlation Coefficient.
- This statistical method was used to extract the following
 - The relationship of the paragraph to the total score of the two scales.
 - Extracting stability using a test-retest method for both scales
 - In finding the correlation between the research variables.
- Cronbach's coefficient of stability: Coefficient Alpha: to extract stability for both scales.
- One-sample T-test: to measure students' hyper-excitability and impression management.

Search Results and Discussion

Measuring the super mental arousal of outstanding and normal students

The arithmetic mean of the levels of mental arousal scale was (183.33) and with a standard deviation of (23.340), and the hypothetical mean was (150)□. Using the t-test for one sample, the calculated t-value reached (28,558), which is greater than the tabular value of (1.96) at the significance level (0.05) and the degree of freedom (399), and this indicates that the research sample has superior mental excitability, and table (2) shows this :

Table 2
The T-test of the Exceptional Arousal Scale of Outstanding and Ordinary Students

Indication level	tabular value	Calculated T-value	hypothetical mean	standard deviation	Arithmetic mean	sample number
0.05	1.96	28,558	150	23.340	183.33	400

Based on the theoretical framework of Dabrowsky's positive disintegration theory, this result indicates that preparatory students for the fourth and fifth stages are characterized by thinking all the time and searching for answers and deep ideas, and sometimes feel the need to obtain an answer from the school when questioned by their teachers and they have a deep curiosity and love for knowledge, learning and curiosity. They are also characterized by focusing attention in order to solve the problems facing them, and frequent reading, reading and detailed planning. They are also characterized by analytical and ethical thinking, self-reflection, symbolic thinking, independent thinking, critical thinking, intense and acute mental activity. They also have independence in thinking at times, focus and the ability to persevere on any mental effort or activity. This result is consistent with the results of the Bouchet & Falk study. (2001), and the results of their study indicated that individuals with high mental excitability are characterized by talent. Bouchet & Falk 2001)) Also, this result is consistent with the study of Miller, Falk and Huang (2009), whose results indicated that there is a correlation between super mental arousal and gender identity, and that males were more likely than females to adhere to their sexual identity And their masculine characteristics and lack of resemblance to women. (Miller, Falk & Huang .2009.p165-167)

Indication of the differences on the scale of super mental arousal according to the category of ordinary and distinguished students

To find out the significance of the differences in the measure of superior mental arousal according to the category of distinguished and ordinary students, the arithmetic mean of ordinary students reached (186.68) with a standard deviation of (24.241), while the arithmetic mean of distinguished students reached (179.65) with a standard deviation of (21.990), and by applying the test t-value for two independent samples, the t-value was (3.022) which is higher than the tabular value of (1.96) at the level of significance (0.05) and the degree of freedom (398). The largest, meaning that ordinary students have superior mental arousal more than outstanding students, as shown in Table (3)

Table 3
The significance of the differences between normal and distinguished students of the measure of mental arousal superfluous

Student class	Arithmetic mean	standard deviation	Calculated T-value	tabular value	indication
ordinary	186.68	24,241	3.022	1.96	function
Distinguished	179.65	21,990			

Referring to the mental arousal literature, the result is in agreement with Mendaglio (2012), who sees that it is not possible to generalize the existence of the five types of super-excitability, which contain super-excitability, to all distinct individuals, as it may exist in some of them and not in others, It may also be available to ordinary individuals (non-gifted and non-distinguished) (Vuyk 2016) This is what the researchers reached, and the results indicated that normal individuals had superior mental arousal more than the privileged

The significance of the differences on the scale of super mental arousal according to gender (male-female)

To find out the significance of the differences according to gender between (males and females) among students in super mental arousal, the arithmetic mean for males was (179.04) with a standard deviation (25.270), while the arithmetic mean for females reached (187.27) with a standard deviation of (20.615), and by applying the test The t-value for two independent samples, the t-value was (3.549), which is greater than the tabular value of (1.96) at the level of significance (0.05) and the degree of freedom (398). The largest, meaning that females have superior mental arousal, unlike males, as shown in Table (4).

Table 4

The significance of the differences between the sexes on the scale of mental hyper-excitability

indication	tabular value	Calculated T-value	standard deviation	Arithmetic mean	Student class
			25.270	179.04	male
function	1.96	3.549	20.615	187.27	female

Indication of the differences on the scale of super mental arousal according to the study stage (fourth - fifth) preparatory

To find out the significance of the differences according to the stage between (fourth-fifth) preparatory among students in super mental arousal, the arithmetic mean of the fourth stage was (182.33) with a standard deviation of (23.565), and the arithmetic mean of the fifth stage reached (184.43) with a standard deviation of (23.207). By applying the t-test for two independent samples, the t-value reached (.895) which is smaller than the tabular value of (1.96) at the level of significance (0.05) and the degree of freedom (398), and this indicates that there are no statistically significant differences between the fourth and fifth stages at the level of mental arousal Superior in the sense that the students in the fourth and fifth grades have superior mental arousal, as shown in Table (5).

Table 5

The significance of the differences between the fourth and fifth grades on the scale of superior mental arousal

indication	tabular value	Calculated T-value	standard deviation	Arithmetic mean	Student class
insignificant	1.96	. 895	25.270	182.33	fourth

					grade
			23.207	184.43	fifth grade

The researchers believe that this result is very logical, as the students of the fourth and fifth grades do not have large age differences between them that may affect their mental arousal, and that their scientific level and mental abilities are somewhat similar, and the previous experiences they went through, which are important in creating a difference between individuals Equal also given that there is no significant difference in age.

Conclusions

In light of the findings of the two researchers in this study and from the analysis and discussion of the data, the following was concluded:

- The research sample of the preparatory stage students have the level of mental arousal.
- Super mental arousal is not limited to individual and horizontal societies such as Western society, but is important and present in collective and hierarchical societies such as the Iraqi society.
- Super mental arousal is also present in ordinary students and is not limited to outstanding students.

Recommendations and suggestions

In light of the results of this study. The researchers recommend:

- Emphasis on the administration of ordinary schools to discover the distinguished students among them.
- Urging government and educational media institutions in education to discover talents to enable students to own them.
- And they suggest:
 - Conducting a correlational study between cognitive self-regulation and mental arousal.
 - Conducting a correlational study between depression and hyper-mental arousal.
 - Conducting a correlational study between anxiety and super mental arousal.

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