Sensory-Perceptual Preferences and Its Relationship to The Abilities of Superior Excitations of Distinguished Students

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ABSTRACT:

The development of creative thinking minds depends on the availability of stimuli in the environment, because most minds in performance necessarily need to motivate and consult them to perform the work entrusted to them by exposing them to a set of stimuli.

Our knowledge of the superior consulting capabilities of our students and the methods used in processing information and their perceptual preferences helps to understand the academic difficulties faced by some of them and provides the objective foundations that ensure overcoming or alleviating these difficulties, as well as the balance of psychological and educational reality for our students is in addition to our knowledge balance, and they are future creative men in facing challenges and building society. The current research aims to identify: -

1- Sensory-cognitive preferences of outstanding students?
2- Superior arousal abilities of outstanding students?
3-The nature of the correlation between sensory-cognitive preferences and superior arousal abilities in outstanding students?

The research sample consisted of (500) male and female students, (323) male and (177) female students from three secondary schools in Baghdad / Al -Rusafa .

The Fleming VARK 1987 scale was applied to sensory-perceptual preferences after ensuring the translation and truthfulness of the translation and with some modifications to suit the research sample, which consists of four sub-scales (visual - audio - reading - written - kinetic) and each paragraph consists of four alternatives (A, B, C, D) and the scale of superior excitation capabilities was also built in line with technological development, the world of virtualities and developments in technological progress at the present time and we are in 2022 in line with the aspirations of the new generation. After processing the data statistically, the results showed that outstanding students have superior arousal abilities in arousal (psychomotor, sensory, imaginary, mental, and emotional), and there is a positive relationship between motor preference and superior consulting abilities and an inverse relationship with reading preference, while

there is no statistically significant relationship between visual and auditory preference and superior consulting abilities when outstanding students. Finally, the researcher develops a number of recommendations and proposals.

Keywords: outstanding students, perceptual preferences, superior arousal abilities, .

1. Introduction:

The environmental world around us is full of many stimuli and stimuli that attract our attention at every moment we pass through and that the human body itself is a source of many stimuli issued by sensory organs and internal organs and the individual selects stimuli that interest him only that achieve his psychological needs and life requirements (Atkinson & et al, 1992, p. 41).

The subject of information processing methods for outstanding students in gifted and distinguished schools has not received sufficient attention from researchers, especially in the Iraqi environment, because the educational system depends on memorization more than open-ended thought-provoking and creative questions, and with the absence of enrichment lessons that were previously present within the weekly classes, at a time when the student must link what he reads to his personal and practical life and apply it in his environment in order to consolidate the information in his mind without much trouble.

It does not depend on remembering only, but employs information and merges it with previous experiences and according to his sensory and cognitive preference to be creative and critical thinking All these mental processes are affected by the methods of processing information and the amount of superior arousal abilities of our students, and these stimuli and stimuli are affected by the ways they are processed and the nature of the cognitive processes that he performs from receiving, storing and processing information to the process of retrieving it, all of which depend on the basis of their sensory and cognitive preferences (Fleming & et al, 1992, p.41).

We need to know the level of super-arousal when our students to know the extent of mental abilities that they possess, and traditional methods and curricula do not meet the urgent need for methods to detect their mental and creative energies, and to know the extent to which the receipt of new information, processing and retention is affected by individual differences between students' sensory and cognitive methods, and students are often classified according to their sensory preferences into visual and (reading - written) and auditory and kinetic. (Kratzig and Arbuthen, 2006, p. 238).

The dependence of students on one of the perceptual sensory methods may be the cause of less learning, as a small percentage of

students fail in their studies not because of the efficiency of their memory, but because of their wrong cognitive style (Al-Aboudi, 2006, p. 59). 2007, p. 46).

This is what our students are missing, and Felder has pointed out that students' preference for a particular learning style that is neglected or unacceptable and discouraged by the educational environment may be the reason for the difficulty that students face in their learning, as they vary in the level of difficulty due to differences in their level of experience and cognitive styles (Kinshuk and Graf, 2008, p. 21).

On this basis, the article problem arises, whether the perceptual sensory preferences preferred by students are caused by the extent of the capabilities of superior arousal and their preference for one of these stimulations, which they adhere to, so they appear in the products of their mental abilities and their life and behavioral applications.

Perceptual models and sensory preferences mean the individual's way of receiving information from the environment with the help of the senses in order to perceive, organize and process it (Mishra, 2005, p.1), which makes him able to easily switch between perceptual models (visual, auditory, tactile, motor, olfactory, linguistic and oral) and preference may occur unintentionally from the individual to test one of the models in a subconscious way, but when he tries to train on one of these methods, the training process occurs at the emotional level and the learner's knowledge of the preferred model helps him to choose.

The use of means and techniques adapted to his style to learn more (www. learning style.org.2009).

Fleming explained that each student prefers a style of learning, as visualises prefer to see objects and images as a device above the head and use drawings or diagrams, while listening students prefer their way of learning by listening to lectures, discussions, or recording tapes, while kinetic students prefer research-based activities and prefer scientific topics (Matar, 2011, p. 3).

The study (Al-Obaidi, 2004) proved that the effect of the two cognitive styles and preference for sensory modeling and preference for cerebral control in memory that there are statistically significant differences between sensory preferences (visual - auditory - motor) and in favor of the left visual preference and then the left auditory favor, and the study of Graf and Kinshuk 2005 Kinshuk & Graf found a correlation between learning styles and sensory preferences and memory capacity, and the study of Kratzing & Arbuthnott showed, 2006 The effect of perceptual sensory preferences in mastering learning, and that students learn better when they are presented with

information according to sensory preferences (visual - auditory - tactile), as the study of Matar 2011 found a high level of cognitive load in the fifth grade of middle school according to the cognitive model, sensory preferences, especially motor, and the study of Kratzing and Kratzing, which aimed to identify the impact of cognitive preferences in mastering science, Where the researchers presented learning methods in line with students' sensory preferences on a sample of (45) students and (11) female students from the Department of Psychological Educational Sciences and the study used the Barsh scale (Barsh, 1991), they found that students learn better when they are presented with information according to sensory preferences (audio, visual, tactile) and the study of Renou 2009 showed the impact of sensory preferences (visual - auditory - tactile) among university students in their success in the Spanish language test, From various disciplines (technical, engineering, business administration, scientific)

Brash scale was applied (Barsh, 1991), the study found that the prevailing preference for both sexes is visual, auditory, common, and tactile**.**

The importance of super-arousal abilities is manifested as superior mental, physical, and emotional abilities that appear as a great reaction to internal and external stimuli in the form of a high desire to learn, a vivid imagination, physical energy, increased sensitivity, and intensity of emotions (Al-Mutairi, 2008, p. 38). It is the highest form of conditioning level, extending in a straight line, and manifesting as varying degrees of responses to the five dimensions of transsensory arousal, an innate tendency that increases with the intensity and sensitivity of the individual to psychotropic, emotional, and practical stimuli (Piechowski, 1999, p. 325**).**

The concept of superarousal was introduced by Kazimierz Dabrowski in 1972 and is written in English (hyper-arousal) and in Arabic hyperarousal or hypersensitivity (Buket, 2006, p. 43).

Where many cognitive psychologists such as Piaget, Vigotskii, Brunar and Ausubel confirmed that it is necessary to understand what is going on from cognitive processes within the organism such as attention, perception, thinking, memory and creativity in solving problems as well as how to acquire information and how to apply it in the face of daily life, so the theory of positive preparations and divisions developed by the Polish scientist Dabrowski confirms the intensity of the response to stimuli that the individual is exposed to in his daily life, that innate mental decision They work in tandem with superior arousal abilities and help us predict change for the better (Treat, 2006, p. 241) Dybrosky argues that not all people reach an advanced level of development and growth, but if ability and

intelligence are combined with high arousals, the likelihood of developing to high levels can be predicted (Lind, 2001, p. 6).

What distinguishes Dybrosky's theory is that it does not see the growth of the human personality as an extended product of the stages of human growth associated with age as in Ericson's theory of psychosocial growth or a theory - and needs, and Dybrosky believes that internal conflicts are positive divisions in the human psyche, but it is the process of human personality growth from a lower level to a higher level for this Dabrowski theory found tendencies in the scientific community and scientific research (tangerines, 2015, p. 19).

The study of Beckett (Buket, 2006) indicated that there is a statistically significant correlation between the abilities of super arousal and creativity in students and appears to a high degree in creative motor, sensory and emotional stimulation, while other arousal abilities are at a normal level (Buket, 2006, p. 51).

Ackerman's study (Ackerman, 1997) proved that the superior arousal abilities of gifted people make them in internal conflicts and feel very inferior and isolated and these conflicts and feelings produce creations in one field of life (Kaminski, 2002, p. 27).

In Falk's study (Falk, 1999) to measure super-arousal in Akron on university students, their arousal was high in mental and emotional arousal, while imaginative and sensory arousal at an average level, and the Walleberg study, 2004 showed that there are differences between creative and talented students, especially in sensory and mental arousal and in favor of creative students, while a study (Treat, 2006) found that gifted students at Midwestern University found that there were statistically significant differences in emotional and sensory arousal in female students and students scored a higher level of arousal Mental, imaginary and motor, and this is confirmed by the study of Beckett (Buket, 2006) at Yosephor University in Turkey that gifted people have high arousals, especially highly motivated students who were classified as leaders, as well as students with high creativity in all super-arousal (Treat, 2006, p. 75).

The Smith study (Smith, 2006) at one or both State University confirmed that the effect of gender and housing on superarousal in American high school students with high mental abilities, especially in imaginative and motor arousal, and that there were differences between male and female students in sensory emotional arousal (Smith, 2006, p. 5**).**

The study of Al-Mutairi 2008 found a relationship between the patterns of super-arousal according to Dabrowski's theory and between intelligence and academic achievement and its effectiveness in detecting gifted students in the middle stage, and the study of

Jarwan 2009 of the effectiveness of the scale of super arousal in detecting academically gifted students, and the study of Al-Yousifi 2015 proved the high level of super-arousal according to the cognitive processes associated with creativity among distinguished and ordinary students in the middle school, and the study of Younis, Al-Shammari and Al-Zareer 2016 revealed all levels of psychological arousal The superior is linked to the characteristic emotional, cognitive and social characteristic of the students of the University of Tabuk.

The teacher's lack of knowledge of the differences between students' cognitive learning methods and not taking them into account when teaching may lead to his feeling of competence and unsuitability for the teaching profession, so teachers and teachers need to teach before or during service through programs and familiarity with new methods of teaching so that they are more aware of effective methods of learning and teaching because they play an important role in their specialization and future success (Al-Badawi, 2010, p. 34).

After reviewing the results of previous studies, the researcher decided to know the relationship between sensory preferences _ cognitive and the abilities of superior arousals, where the results of the study are useful in enriching the practical side by providing us with tools for evaluating and diagnosing students in a scientific way to enable specialists to employ them in the practice of the counseling and clinical process to detect creative and talented students and thus help them to prepare educational, thinking and creative programs. According to the researcher, there is no study that linked the two variables, and studies and research are still concerned with mental abilities.

Research Objectives: The current research aims to identify:

1- Sensory-cognitive preferences of outstanding students?

2- Superior consulting capabilities of outstanding students?

3- The nature of the correlation between sensory-cognitive preferences and superior arousal abilities among outstanding students?

Research limits: The current research is determined by outstanding students from distinguished secondary schools in Baghdad / Rusafa side for the academic year 2021-2022.

2. Define terms

First: - Perceptual sensory preferences were defined by:

Fleminq (1992): The individual's method of receiving information from the environment through his different senses (visual, auditory, motor) and preferring one of these senses when performing various tasks required in various fields (Al-Obaidi, 2004, p. 8).

Reading and Douges (1993): A fixed and distinctive tendency of a person to perceive, remember, organize, process information, think and solve problems (Matar, 2011, p. 7).

The researcher adopted the theoretical definition of Flemish (Fleming: 1992). Procedural definition: The score we obtain from students on the scale that shows their preference over one or more perceptual preferences.

Second: Superior stimulation abilities: Defined by both

Dabrowski (1964): It is the intensity of the ability to respond to stimuli, which is expressed by increasing the sensitivity and intensity of activity of one of the five stimuli (the same motor, sensory, mental, imaginary, emotional) who possesses one or more of these arousals sees reality in a different way and with a high degree of mental, physical and emotional abilities that manifest as a great reaction to internal and external stimuli and is full of vitality and energy (Teller, 2006, p. 69).

Treat.2006 is an innate excitation of an increased ability to respond to stimuli or stimuli (Treat, R. 2006, p. 246).

Tiller (2006): The intense physiological response to sensory stimuli caused by increased sensitivity of neurons (Tiller, 2006, p. 9).

The researcher adopted Dabrowski's theoretical definition of super stimulation abilities (Dabrowski: 1964).

- Procedural definition: The total score obtained by students for their response to the paragraphs of the scale of superior stimulation abilities.

3. Theoretical framework:

First: Sensory preferences _ perceptual: Windler Bandler is the first of the most important role of the five senses in the processing of information when he introduced the concept of neurolinguistic programming in 1970, then many scientists tried to provide cognitive methods (visual - auditory - motor) and identified Fleming (Fleming, 1987) three preferences VAK and known as a model of sensory preferences, Fleming relied on research that dealt with the functions of the hemispheres of the brain and research that dealt with the brain splitter and then presented with Stirling the most important differences between learners in preferences (visual - Audio-kinesthetic) and after continuous study with Mills (1992) divided the visual preference (Visual) which relies on graphs, images, and symbols into a read-written preference Read - Write, and thus presented a model. Aware of the four sensory preferences: visual (visual), auditory, read-written, read-written, and kinetic (Kniesthetic) Note that the individual's preference for one of these models does not mean that he cannot adopt another preference, but rather means that he learns better through his preferred style and through training He can rely on all methods, as well as pay attention to the preferences of teachers and use more than one teaching strategy to take into account individual differences.

(Fleming and Mills, 1992) Flemish has explained sensory preferences as perceptual methods as follows:

1- **Visual Cognitive Model (V):** Visualists learn better through visual means and techniques because they urge learners to think and increase their skills during learning, and the visualises are characterized by imagining things easily, which is the student's preference to learn the information presented in the form of maps, charts, or pictures.

2- **Auditory Perceptual Model (B):** Auditors learn through conversation and lecture or through means or phone calls and are characterized by their ability to acquire facts by paying attention to the change in tone of voice and their ability to retrieve a person's image with his phone number when hearing his voice and tend to solve problems by talking to others. (www.wikoedia.org.2009).

3- **Cognitive Reading Model – Written** (**R): -** It is the student's preference to learn the information presented in the form of words, either read or write them and learn better by using dictionaries, encyclopedias, lists, text sentences or some computer programs (Powerpoint) and this appears clearly among academics.

4- **Cognitive-motor model (K): -** It is the student's preference to learn by adopting training or real or imagined experimental examples using video or studies, scientific classes, and examples, i.e., everything that is realistic and practical.

Kinetics tend to explore and understand through action and when they work, they think and can focus their attention on two things at the same time and coordinate between hand and eye. (Fleming, 2009, pp. 1–2)

At the point of measuring sensory preferences, the reading-written preference was not introduced to paragraphs (13) paragraphs until it was developed by Werhelter (Tim Vierhelkr, 2005), so he introduced alternatives to preference (reading-writing) on all paragraphs of the Vark scale, and added paragraphs, so that the approved version became after the approval of the Flemish consisting of (16) paragraphs (www. Fark – Learn.org.2009) (Matar, 2011, p. 47).

Second: The concept of super-arousal abilities when Dabrowski: They are the traits that express the supernatural talents possessed by individuals that enable them to know life on a deeper level. Dabrowski believed that there are three exceptions that help the process of evolutionary end arousal [imaginary, mental, and emotional, and then added the same kinetic or sensual] (Al-Yousifi, 2015, p. 16). He believes that there is an interactive relationship between the factors of heredity and the environment, which is a functional relationship interdependent and mutual between predispositions and potentials and

the corresponding environment that drives and stimulates them, and Dabrowski also points out the existence of an independent factor called Autonomous Factor, which is the driving factor in the environment and heredity, and this factor drives the highest levels of hierarchical organization of the human personality (Al-Mutairi, 2008, p. 35). These super-arousal abilities are described below:

1. **Psychomotor overexcite abilities** indicate a high degree of increased physical energy in the neuromuscular system, often characterized by people with super motor stimulation as follows:

- Increased energy is represented by rapid speech - impulsive or violent impulsive behavior.
- Competitiveness and speed in doing fast sports.
- Speaking quickly and compulsively- nervous habits and tics.
- Tendencies towards fast action and sports- the physical expression of emotions.
- Insomnia and indulgence in doing work.

2. **Superior sensory arousal Excessive sensory arousal** abilities

It indicates that there is a high degree of sensation for all five senses, and people who have superior sensory stimuli are often characterized by the following:

- Touch sensitivity This arousal is characterized by discomfort from certain substances on the skin.
- Appreciating beauty in writing, music, conjecture, or nature includes love.
- Sensitivity to smell and taste of foods, sensitivity to coloration, and desire for luxury and joy.

3. **Super-imaginative arousal abilities Excessive excitement in imagination indicates a** high degree of desire to play free imagination such as the living imagination that caused them to visualize and this arousal helps people to decide or evaluate new situations and the most important characteristic of people this arousal:

- Free imagination and inclination to invent, fear of the unknown, daydreaming, and imagination.
- A sense of humor and magical thinking, a love of poetry and music.
- Mental perceptions and recall of pictorial performances.

4. **Superior mental arousal Excessive intellectual abilities**

They represent the activities of the mind, thought, thinking about thinking, thinking all the time, looking for answers, deep thoughts, responding to their teachers, and the most important characteristic of people with superior mental arousal:

- Focus attention on solving the problem, frequent reading, and detailed planning.

- Love of knowledge, learning, and curiosity, metacognitive thinking.
- Analytical and ethical thinking, self-reflection, and symbolism.
- Persevere in any activity and mental effort. (Teller, 2009, p. 70)

5. Super-emotional arousal Excessive emotional arousal abilities

Exceptional emotional sensitivity is thought to be emotionally disturbed and people with high emotional arousal are often characterized by:

- The intensity of positive and negative emotions, anxiety, fear, shame, and shyness.
- Feelings of guilt and sense of responsibility, problems coping with change.
- Feelings of inferiority and inferiority, a high sense of truth, falsehood, injustice, and hypocrisy.
- Attention to death, cases of depression and suicide.
- The need for security and difficult adaptation to the unique environment (Buket, 2006, p. 45).

4. Search Procedures:

This chapter includes the procedures followed by the researcher, including the research methodology, sample selection and research tools **first: Research methodology:** The researcher followed the descriptive approach because it fits with the objectives of her research.

Second: Community Identification: The current research complex consisted of outstanding students in secondary schools in the second Rusafa area, which includes three secondary schools, numbering (2110) male and female students. The research complex was selected from the first, second, and third intermediate-stage students only, numbering (1143) as in Table (1)

Table (1) Research Community

School	Row			
	first	Second	Third	Total
Secondary School (Baghdad College for the Distinguished)	90	112	100	302
Distinguished High School	110	134	147	391
Distinguished High School	130	147	173	450
Total	330	393	420	1143

Research sample: The research sample was withdrawn by random stratified method, where it reached (500) outstanding students by

(323) students and (177) students from the middle stage from three schools.

Search Tools:

First: Sensory Perceptual Preferences Scale 1987: After reviewing previous studies and literature such as the study of Al Obaidi 2004, which applied the VARK Fleming test, which measures three methods (visual_audio-tactile) and the study of Kratzg and Arbotnut 2006, which used the Barsh scale of perceptual preferences and the study of Matar 2011, which adapted the original version of the Iraqi environment, the researcher relied on the FARC Scale of Flemish 1987, which was applied by Matar, 2011 The foreign version was presented with Arabic to experts to ensure the validity and integrity of the paragraphs, was Modifying it in line with the objectives of the research after presenting it to a group of experts and arbitrators, and the 1987 FARC scale of perceptual sensory preferences consists of four sub-scales (visual - audio - reading, written - kinetic) and each paragraph consists of four alternatives (A, B, C, D) and the student is asked to choose one alternative that applies to him

- Correction of the scale of sensory-cognitive preferences: A score is awarded to each of the four alternatives chosen by the student from each paragraph of the scale one degree, then the total score of the test is calculated on the four scales, that is, by calculating the score of each sub-scale separately, then the grades are collected, and the highest score obtained by the student is determined in the subscale, and this means that the student prefers or belongs to this preference

- The apparent honesty of the scale Sensory preferences - Cognitive: The scale was presented to a group of arbitrators and experts in the field of psychology, educational psychology, measurement, and evaluation, and it obtained an agreement rate (100%)

- **Stability of the sensory-perceptual preferences scale:** The stability of the scale was extracted by retesting each of the four preferences as follows:

Retest method (for kinetic preference): - The scale was applied to a sample of (50) male and female students and after extracting the Pearson correlation coefficient it was found that the stability coefficient (0.73), while the visual preference found the stability coefficient had reached (0.72) as well as the stability coefficient for reading preference - written is equal to (0.72) while the stability coefficient for auditory preference was (0.70)

- **Second: Scale of super-arousal more than arousal: - The scale of super-arousal** went through stages for forty years, as it was developed by Baichowski Piechowski the first scale in 1979, which consists of (21) open questions and then became (46) questions by experts from the University of Akron. It included

(50) graded paragraphs Licart Graded Evolutionary predispositions and potential can be measured based on super-arousal (either positive, negative, general, or private, strong, or weak, apparent or invisible). (Teller, 2006, p. 69).

Therefore, this arousal, which is expressed as intensity or intensity (Intensity) in response and can be viewed positively as a function relationship in the development of individual potential and thus the growth of creativity, and therefore measuring super-arousal means measuring the five areas of arousal (Al-Yousifi, 2015, p. 24). The researcher reviewed the literature and previous studies such as the study of Al-Mutairi 2008 and the study of Jarwan 2009 and the study of Al-Yousifi 2015 and the study of Younis and others 2016, the researcher relied on the scale of super-arousal based on the theory of Dabrowski which she translated, the researcher presented the scale in the original version and the translated version to a group of experts to confirm the integrity of the translation and the suitability of the scale to the Iraqi environment with new and modern modifications to suit the present time and we are in 2020 with the aspirations of the new generation on the Internet and delve into the world of virtualization, and the scale Super-arousal measures five areas are (thesame as themotor, sensory, imaginary, mental, and emotional), which consists of (48) paragraphs and in each area (10) paragraphs except the emotional field (8) paragraphs and be alternatives to the scale of five alternatives (do not apply to me at all, do not apply to me much, apply to me to some extent, apply a lot, apply to me too.

- The method of correcting the scale of super arousal: - Since the scale consists of five areas and the sum of its paragraphs (48) and five alternatives, so the degree of the scale is respectively (1,2,3,4,5), the total score ranges (between 48-240) and with a hypothetical average (144), the higher the student's score than the hypothetical mean, this indicates a rise in his superior arousal and vice versa.

- Statistical analysis of the super-arousal scale: it was done in two ways:

First: Distinguish the paragraphs: - The discriminatory strength of the paragraphs of the super-arousal scale was verified in two ways:

- The method of the two extreme groups: The scale was applied to a sample of (500) male and female students and after correction and order of grades by (27%) the number of students reached (135) in the upper group and (135) for the lower group and after applying the T-test for two independent samples (T.test) it was found that the tabular T value is equal to (1.96) at the level of significance (0.05). the degree of freedom (268) found that all paragraphs of the scale were distinct any statistically significant.

Second: - The sincerity of the paragraphs: - To find the correlation of the paragraphs with the total degree of the scale of super-arousal was used Pearson's correlation coefficient was found that all paragraphs are honest and functional and that the tabular value is equal to (0.088) at the level of significance (0.05) and the degree of freedom (498).

The honesty of the scale of super arousal: - Honesty has been extracted in many ways as follows: -

1- **Virtual honesty**: - The scale was presented to a group of experts and arbitrators in the field of psychology, measurement, evaluation, and educational psychology, so the percentage of agreement was 99%

2- **Honesty of construction**: - This type of honesty has been achieved through the association of paragraphs with the total degree and the link of paragraphs to the field and through the internal correlation matrix, whether the fields with each other or the correlation of the fields with the total degree of the scale using the Pearson correlation coefficient was a positive function and this indicates the sincerity of construction.

Stability of the super excitation scale: - The stability of the scale was verified in two ways: -

A. **How to redo the test method: The scale was applied to a sample of (**50) male and female students who were randomly selected and after two weeks of the first application, it was re-applied to the same sample, and it was found that the stability coefficient had reached (0.87), which is good

B. **Alfacro nbach method**: - The stability was found by the method of Alfakronbach on sample size (50) male and female students, and it was found that the stability coefficient has reached (0.85), which is stability.

5. Interpret preliminary results considering the main research objectives:

First Objective: - Identify the sensory-cognitive preferences of outstanding students. To achieve this goal, the arithmetic mean and standard deviation of each preference were extracted from the four preferences, and it was found that the arithmetic mean of the kinetic preference (6.4240) and a standard deviation (2.46178) and to find out the differences, it was found that the calculated T value is equal to (22,018), which is greater than the tabular value of (1.94), which is a function in favor of the sample preference, and when extracting the arithmetic mean of the reading preference, it was found that it is equal to (2.9020) and a standard deviation (0.54128) and when comparing the calculated T value of (45.359) with the tabular value that is equal to (1.96) it was found It is a function in favor of the hypothetical mean, while it was found that

the arithmetic mean of the auditory preference is equal to (4.1860) and a standard deviation of (1.31562) and when compared to the calculated T value of (3,161), which is greater than the tabular T value of (1.96), it was found that it is a function in favor of the sample, and finally it was found by visual preference that the arithmetic mean is equal to (2.7000) and a standard deviation of (1.21695), and when comparing the calculated T value of (23,887) with the tabular value of (1.96), it was found that it is a function in favor of the hypothetical mean, and Table (2) shows that the sample It enjoys motor and auditory preference, but the reading and visual preference do not enjoy it, through comparisons with arithmetic media, and this result was consistent with the study of Matar 2011, and the study of Kratzj 2006 that learning styles have an income and an impact on students' sensory preferences.

Table (2) T-test for one eye

Sensory preferences	Number	Arithmetic mean	Standard deviation	Hypothetical average	T value		Significance
					Calculated	Tabular	
Motor	500	6.4240	2.46178	499	22.018	1.96	Sample function
Reading		2.9020	0.54128		-45.359		Function of the hypothesis
Audio		4.1860	1.31562		3.161		Sample function
Visual		2.7000	1.21695		-23.887		Function of the hypothesis

* Tabular T value is equal to (1.96) at the level of (0.05) and with a degree of freedom (499)

1- The second objective: Which provides for the identification of superior arousal abilities among outstanding students?

To achieve this goal, the arithmetic mean was extracted, and it was found that it reached (168.7080) for the sample (500) male and female students with a standard deviation (30.95227).

A hypothetical mean (144) and when using the T-test, it was found that the calculated value had reached (17,850), which is greater than the tabular value, which is equal to (1.96) at the level of significance (0.05) and the degree of freedom (499), which is a statistical function as in Table (3).

This result indicates that the students have a high level of superstition, and this is due to the fact that the preparatory stage is a stage characterized by I love cognitive curiosity and the search for

everything that is new and unfamiliar in the world of electronics and this increases their curiosity, which helps to develop the mental ability and interact with what is new excites them and increases their positive emotions and sensation and living in the world of imagination to turn it into a reality of the same kinetic, which empties the physical and psychological energy, which pushes him towards challenging with the self to empty the internal tension, knowing that in adolescence they enjoy sensory things, the beauty of nature, the tendency towards imagination and daydreaming.

Excessive sensitivity in relationships with others and the expression of their emotions this result agreed with the study Jarwan 2009 in the effectiveness of the scale in detecting the distinguished and talented as well as a study (Al-Yousifi, 2015).

Table (3) T-test for one sample

Variable	Number	Arithmetic mean	Standard deviation	Hypothetical average	T value		Level of significance
					Calculated	Tabular	
Super Consulting	500	168.7080	30.95227	144	17.850	1.96	function

The third objective: the nature of the relationship between sensory-perceptual preferences and superior counseling among outstanding students, to know the relationship, Pearson's correlation coefficient was used, and to know the statistical significance, the second test was used to indicate the correlation coefficients as in Table (4)

Table (4) Pearson Correlation Coefficient T-Test for Correlation Significance

(Correlation coefficient values) between sensory preferences and super-counseling		Number	T value		At a significance level (0.05)
			Calculated	Tabular	
Kinetic	0.448	500	11.182	1.96	Positive function
Literacy	-0.304		7.121		Negative function
Audio	0.076		1.700		Non-function
Optical	-0.003		0.066		Non-function

It was found from a table that the relationship between motor preference and super counseling is a positive function because the value of Pearson's correlation coefficient amounted to (0.448) and to know its significance, the calculated T value reached (11.182), which is greater than the tabular T value of (1.96) and this shows that there is

a direct function relationship, i.e. the more the super consultations, the greater the motor preference, while it was found that the relationship between reading preference and super counseling is an inverse relationship with a negative significance, i.e. the higher the super consultations, the lower the reading preference and the inverse relationship between Reading preference and super consulting because they prefer to learn by reading, writing words and text sentences, and sitting on the Internet more than their tendency to move, immerse themselves in imagination or express emotionally. (Fleming, 2009, p2). The relationship between audiovisual preference and super consulting is insignificant.

This result was consistent with Dairowski's view that not all individuals reach a level of development and progress, but in the case of the availability of ability and intelligence combined with super consultations, the possibility of development to any level of the situation, which led to the emergence of sensory preferences combined in the outstanding superior individual (tind, 2001, p4).

Dairowski also believes that the factor of genetics and the environment has a role in the growth of the learner's personality and its elevation, as this relationship is a functional relationship interconnected and mutual showing the preparations, potentials, and sensory preferences and the corresponding in environmental and educational milieu, which drives and stimulates them (Al-Mutairi, 2008, p. 35). At the emotional level, it is preferred by the student or individual, and since the super-consultations include the same motor, sensory, imaginative, and mental and emotional abilities, for this we find an increase in those with motor preference (because kinetic prefer work, movement, touch and learn better through educational activities and interaction with the physical environment. (Renault, 2009, p. 3).

6. Results:

1. Outstanding students avoid motor and auditory preferences more than reading and visual preferences.
2. The outstanding students have superior counseling in the abilities of (psychomotor, imaginary, mental, and emotional)
3. There is a positive relationship between motor preference and superior counseling abilities and an inverse relationship with reading preference, while there is no statistically significant relationship between visual and auditory preference and superior counseling abilities among outstanding students.
4. The Ministry of Education should train teachers on types of teaching strategies to consider the individual differences between students in their preferences and help them develop them according to modern models.

5. Cooperation between the Ministry of Education and the Ministry of Higher Education and Research on developing students' superior consulting capabilities through creative programs and strategies and encouraging them to self-confidence through trainers within the disciplines of human development and allocating enrichment lessons in which they are trained on how to develop thinking of all kinds.
6. Conducting a similar study on ordinary students and comparing it with distinguished students.
7. Conducting follow-up studies to know the perceptual preferences of students and then developing them, as well as conducting a follow-up study to develop superior counseling through interaction with the classroom environment and life activities.

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