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Cognitive Agility of Educational Counselors

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Abstract

The current research aims to identify the cognitive agility of educational counselors, and to achieve the objectives of the research, the researchers built the cognitive agility scale and it consists of (33) items distributed over three areas: (cognitive openness - cognitive flexibility - focus of attention). The research was conducted on a building sample of (200) male and female counsellors, and a final application sample of (200) male and female counsellors of (100) males and (100) females, The sample was chosen randomly from the schools of Babylon. Then the items of the scale were analyzed logically and statistically to calculate their discriminatory ability and their validity coefficients, and the researcher verified the apparent validity and constructive validity indicators of the two scales and calculated the stability of the two scales by (Alpha Cronbach - retest), and for the purpose of verifying the research procedures and results. The researchers used the following statistical means: Ka2-Test Square, One-sample t-test for two independent samples - Pearson correlation coefficient - Binary analysis of variance - Z-test
The results showed the following:
1. The research sample has a high level of cognitive agility
2. There is no statistically significant difference in cognitive agility according to the gender variable (males, females).

Keywords: (Cognitive agility, educational counselors)

Research Problem

The complexity of life and the complexity of its problems due to the rapid changes that the world is witnessing today in various intellectual, social and economic aspects that accompanied the scientific and technological development in general, the expansion or multiplicity of schools, the increase in competition and the accumulation of their educational and psychological problems were a reason for the increased need for psychological and educational guidance and an active role for the educational counsellor. In reality, as indicated by studies and surveys, especially in the Arab region and in Iraq in particular, educational and psychological counseling suffers from both issues, whether at the level of institutions or even in the possibility of building a fortified full guide. All this made the educational counsellor lose many of the psychological and professional qualities and characteristics that help them to perform their role in the best way possible. Also, the weak academic preparation and the poverty of the guiding curricula in the specialized departments for graduating counselors, not to mention the lack of interest in educational counseling in terms of qualification and development courses from the concerned authorities. That in turn affected the guiding skills and cognitive abilities that are owned by the educational counselor and needed for facing

various student problems. (1990:44 Millikn)

Accordingly, educational counselors with a low level of cognitive agility are usually less competent to face the diverse problems of students and less qualified to employ their experiences and guiding skills, and they are inadequate to keep pace with new developments in their field of specialization (Al-Badawi, 2021: 199).

The current research raises some questions, such as:
What is the level of cognitive agility of educational counselors?

The Importance of Research

This research acquires its importance from the concepts it deals with, as it occupies special importance at both the theoretical and applied levels. As well as to determine the nature of the relationship between one of the main concepts in cognitive psychology, which is the concept of cognitive agility, which is one of the most important cognitive concepts because of its realistic importance represented in the individual's ability to cognitive adaptation to rapid and sudden changes.

further, it highlights the importance of cognitive agility as a mental performance function that helps to change and diversify the methods of mental dealing with situations according to their nature by analyzing their difficulties into factors that can be known and used in finding solutions. Cognitive flexibility refers to the individual's ability to perform many cognitive representations when dealing with a task. Thus, it is a guide for flexible behavior towards the goal (7: Hutton & Turner, 2019).

Therefore, cognitive agility in the field of cognitive openness refers to the ability to accept and control thoughts and actions, and it is also a structure that enhances the ability to adapt in real time and includes the ability to show the level of cognitive openness, It is a good and new starting point for mobility and adaptation within biological environments. A cognitively agile person has the ability to make decisions, differentiate between instructions and information, and the ability to interpret a wide range of social and emotional skills. Agility is supposed to be activated in classrooms through guiding curricula (Wolf, 2017).: 10)

Research Aims: The current research aims to identify:
1- Cognitive agility of educational counselors.
2- The differences in the cognitive agility of educational counselors according to gender variables.

Limitations of Research

- Objective limits: the current research variable includes cognitive agility. Human limits: the current research is limited to educational counselors.
- Location limits: The current research includes educational counselors in the province of Babylon.
- Time limits: for year (2021-2022).

Assigning Terms

Cognitive Agility

Known by:
- Lepine et al., 2000:

A cognitive ability that increases performance in a context that requires a series of adaptations on the part of individuals that leads to a change in perception, behavior, or emotion in

response to what is expected or actual (Lepine et al, 2000: 27).

● 2009 Good:

A complex cognitive formation that reflects the extent to which three cognitive abilities of the individual are harmonized together while working in environments that include dynamic tasks to enable them to adapt their performance to each change in the requirements of responding to such tasks. (19) 2009:

● Theoretical definition:

From the previous definitions, the researcher adopted the definition of (2009), Good) as being the theoretical definition of cognitive agility in the current research, and the researcher adopted his model in building the scale, which is a definition that is characterized by accuracy and comprehensiveness.

● Procedural definition:

The total score obtained by the respondent through their procedural response to the items of the cognitive agility scale in the current research.

Chapter Two: Theoretical Framework and Previous Studies

Theoretical framework

As one of the most important topics that was dealt with by cognitive psychology can be divided into two sections, including classic topics; the most important of which are attention, cognition, memory, thinking, language, cognitive patterns, and cognitive growth. As for the other section, they are modern topics, such as cognitive neuroscience, artificial intelligence, information processing, thinking development, philosophy of thinking, and distributed parallel processes (Wolf, 2017:13).

The term cognitive agility is the most suitable one because it reflects balance and integration between several cognitive abilities in variable environmental conditions, and because it also adds to this meaning the extent of the cognitive openness of the individual to those environmental changes, and because the term agility is the best term that combines flexibility and adaptability, it is a unique term that expresses the level of knowledge that enables the individual to adapt his performance to the changing content of any special dynamic task under the pressure of limited time (19, 2009, good). It differs from what the individual does by causing changes in their behavior and their emotion in response to the actual changes in the environment, or what they expect through their ability to adapt in general (566 -2006:563 lepin, et al,).

Both (lepine & etal, 2006) indicated that cognitive agility expresses the ability to adapt to knowledge as it reflects the extent to which the individual is able to change their decisions and their knowledge to comply with the requirements of the changing environment in which they work in (lepine & etal, 2006, 563 -565). (Good, 2009) confirms that cognitive agility is a proposed new structure that seeks to collect and develop current concepts of adaptability, adaptive performance and flexibility at the same time. It expresses a special cognitive ability that leads to increased performance in contexts that include a series of adaptation processes and reflect the adaptive behavior of the individual in biological contexts (Good, 2009: 17). (According to pisapia, 2009), cognitive agility is the individual's ability to mentally adapt quickly and efficiently to changes in their environment (pisapia 2009: 46).

Cognitive agility characteristics

1- The ability to maintain highly focused situations.

2- Those with cognitive agility have the ability to increase emotional intelligence by improving

the individual's ability to switch between highly focused situations to levels of broad external awareness that would enable dynamic decision-making and enhance interpersonal communication skills.

3- The cognitively agile is more capable of exploiting new opportunities.

4- Cognitively agile has the ability to use perceptions and experiences and make judgments about what happened in the past and is happening in the present to help guide future decisions.

5- More capable of differentiation and integration, differentiation means the ability to perceive multiple dimensions instead of just one, while integration refers to the ability to identify relationships between the different characteristics of situations.

6- More ability to see others from a contradictory perspective, and better ability to absorb contradictions, which is an indication of social cognition skills that enable them to interact skillfully with others (Al-Badawi, 2021: 20)

Manifestations of cognitive agility

The behavioral manifestations of the individual's level of cognitive agility are reflected in the nature of their performance of various tasks, Where the brain and the mental resources represented in (stimulus information) participate in this performance of the task, and the individual's mental strategies (its operations and mental techniques) that they excel at using. All of this shows a great deal of individual differences in favor of high level of cognitive agility in many behavioral aspects, including: observing problems or paradoxes, predicting any deviations from things expected in advance, and giving meaning to the information surrounding the situation even if it is conflicting, ambiguous, or surprising, diagnosing the nature of the problem, explaining the situations as they actually are, finding alternative options, and evaluating the effects of the events already taking place, Predicting the effects of expected events that have not yet occurred, comparing the current state of the situation with the one that was expected to determine the amount of deviations, evaluating the available and imagined alternatives, between evidence and proof, and choosing between alternatives, whether ongoing, or that have already been evaluated. These individual differences are due to many factors that support all of them are the level of the individual's cognitive agility, including training, previous informational experience about the task, self-awareness, disciplined style of thinking, degree of creative thinking, degree of cooperative participation, initiative spirit, and enthusiasm alike (hutton & tuner, 2019: 3).

As for Furr (2010), he believes that cognitive agility consists of three basic structures, which are:

1. Diversity of knowledge: It means diversity and difference in knowledge.
2. Epistemological novelty: It is intended to present all external influences that are related to knowledge and new knowledge.
3. Knowledge formation: It means diversity in presenting knowledge and forming it in different forms. Furr,2010:26))

Theories that explain cognitive agility:

First: Cognitive Development Theory (Jean Piaget, 1936)

Piaget looks at cognitive development from two angles (mental structure and mental functions) and believes that cognitive growth can only take place with their knowledge, and mental construction refers to the state of thinking that an individual has at some stage of their development. As for mental functions, they refer to the processes that an individual resorts to when interacting with the stimuli of the environment he is dealing with. Piaget's focus is on the development of structures or cognitive structures, and Piaget believes that human mental

dispositions are inherited and therefore are fixed and do not change. As for mental structures and processes, they change over time as a result of the individual's interaction with the environment.

According to Piaget, there are two basic functions of thinking that are constant and do not change with age: regulation and adaptation. The function of regulation represents the individual's tendency to arrange and coordinate mental processes into coherent and integrated overall systems. As for adaptation, it is changes in the membership that occur in response to environmental demands, and the process of adaptation is a function of great importance, and adaptation occurs through two processes: representation and alignment (Abugado, 2012: 93-94).

Cognitive growth factors

Piaget believes that there are four factors that affect the process of cognitive growth and thus allow possible cognitive agility, which are:

1- Maturity: refers to the set of changes that occur in the physical, sensory and nervous manifestations of individuals. Maturity is an indicator of the completion of the growth of different parts of organs which enables the individual to learn an experience.

2- Interaction with the physical environment: The physical environment includes all tangible assets that individuals interact with through interaction with the environment, the individual acquires experiences related to things and material subjects, such as knowing their names and properties.

3- Interaction with the social environment: representing the human being with his intellectual and ideological system and the various institutions with which individuals interact through the process of socialization with individuals, experiences, habits, lifestyle and different ways of thinking.

4- Balance: an innate tendency that is born with humans that enables them to achieve changes in their cognitive structures. Through this process, individuals seek to achieve a kind of balance between the outcome of their cognitive experiences and the new experiences they direct, which causes a change in their cognitive structure (Al-Zogoul, 2009: 91-92)

Second: Meaningful Learning Theory (David Ausubel, 1969)

Ausubel developed his theory of meaningful verbal learning, which included many implications that can be used in classroom education. Ausubel suggests in this theory that learning a concept or subject acquires psychological meaning when it is associated or merged with a concept or an idea (pre-learning) present in the learner. In order for for new learning to have meaning, it must be integrated into the existing knowledge structure of the learner. Ausubel defined the cognitive structure as perceptions or concepts that are fixed and organized in some way in the mind of the learner. Ausubel stresses that the effective learning process is what enables the learner to quickly acquire knowledge, retain it, and transfer it to other educational situations.

Therefore, he was interested in how the study material should be organized, the methods of presenting it to the learner, and even the methods of social learning in a way that enables him to integrate them into his cognitive structure and achieve what is called meaningful learning (Al-Zughoul, 2009: 249).

Basic Concepts of Ausubel's Theory

1- Meaning: Ausubel defines meaning as a clearly differentiated and clearly defined emotional experience that emerges in the individual when signs, symbols, concepts and functions

related to the content of the meaning interact. It is assimilated and represented in the cognitive structure, in which those who possess high cognitive agility, the meaning is present at every cognitive process. (Sugar: 2015: 27)

2- Advanced Organizer: It is an introduction material that is presented at the beginning of the teaching process and is characterized by abstraction and comprehensiveness and aims to provide learners with a set of comprehensive knowledge and concepts that help them to acquire and integrate new learning into the cognitive structure. They represent some facts, faculties and general rules that are related to specific study topics or represent the outlines for presenting the study topic. In order for these organizations to be more effective, it is preferable to include topics familiar to learners or experiences they have previously learned.

Ausubel divides advanced organizations into two types

1- Explanatory organizer: the teacher resorts to when the topic of the lesson is completely new and the students have no previous experience in it and includes definitions of concepts and instructions.

2- Comparative Organizer: the teacher resorts to when the topic of the lesson is not completely new, that is, the students have some previous experiences about the topic or some of its aspects, so they contribute for integrating the new information, distinguishing it from the previous one, and fixing it in an organized mental system by clarifying the similarities and differences between them. (Zogoul, 2009: 252)

Explanatory Models of Cognitive Agility

researcher and year	**Elfiel, 2020**
Research Title	The effectiveness of the challenge-based learning model in improving the mentality of development and cognitive agility among students of the Faculty of Specific Education at Alexandria University
the sample	The study sample consisted of (62) male and female students in the fourth year
research aims	The aim of this research is to identify the effectiveness of the challenge-based learning model in improving the development mentality and cognitive agility, as well as revealing the degree of difference in the effectiveness of the challenge-based learning model in improving the development mentality and cognitive agility among students of the Faculty of Specific Education, Alexandria University, according to the gender .(.variable (male-female)
measuring tool	The researcher used a scale of developmental mentality and cognitive agility, which included the three dimensions of flexibility, openness, focus of attention, and the program prepared in the light of the challenge-based learning model, all of which he prepared
Results	The results of the research revealed that there were statistically significant differences between the mean scores of the students of the experimental and control groups in the post measurement of development mentality and cognitive agility in favor of the experimental group students, as well as the presence of statistically significant differences between the mean scores of the experimental group students in the pre and post measurements of development mentality and cognitive agility according to the gender variable

(Cognitive Agility model (Darren Good, 2009)

The term cognitive agility appeared by researcher Darren Good in the year (2009), and the first use of it was to describe the extent to which train drivers are able to perform well and comfortably in their work environment, which is characterized by the constant change in the content of the tasks facing them, which requires them a very large amount of dynamism in decision-making. Then this term was used after that to describe the performance of other individuals in other professions, all of which require a high degree of dynamism in decision-making as well, and then the matter came after that, and developed to the point where some

called for the need for continuous training for all individuals to exercise cognitive agility in their work, Because it is likely to improve their emotional intelligence, and that is they are trained to move lightly between situations that require them to focus intensely on one point, or in a limited number of points to other situations that require them to expand awareness, to absorb a very large amount of information at the same time. The need for this new term has emerged despite the existence of several terms were described by the researchers by the extent of the individual's ability to make a change in their performance (16: 2009, (Good.).

Studies on Cognitive Agility **Elfiel(163 :2020) ,**

researcher and year	(Mohammed , 2020)
Research Title	The role of cognitive agility in responding to feedback during teachers' dynamic decision-making tasks
the sample	The study sample consisted of (124) male and female teachers majoring in .(Science and Mathematics) at the preparatory and secondary levels
research aims	The aim of this research is to identify the role of cognitive agility in responding .to feedback during teachers' dynamic decision-making tasks
measuring tool	) consists of which The researcher built a scale20 positions to measure the level of cognitive agility
Results	The results indicated that the sample members have varying levels of cognitive that and agility despite their overall appearance at a (medium) levelthere are dimensions and) differences between them in the level of cognitive agility due to gender, specialization, and age, and to the presence (quantitative degree of statistically significant differences between high and low Cognitive agility in positive and negative the speed and accuracy of responding to feedback

(Muhammad, 2020: 140)

Chapter Three: Research Methodology and Procedures

First: Research Methodology

Since the current research aims to know the subject of cognitive agility in the research sample, the researcher has adopted the descriptive correlative approach, because this approach gives an accurate description of the studied phenomenon and is not only limited to collecting, classifying and distributing data and facts, but also includes a degree of interpretation of these results. (Obaidat et al., 1996, 286).

Second - Community Research

By community research, we mean all individuals who carry the data of the phenomenon that are accessible to the study (Daoud and Anwar, 1990: 66), and the current research community has been identified by school counselors affiliated with the Babylon Education Directorate - for the academic year (2021-2022) *, and of both genders, males and females and their total count (446). The researcher obtained the numbers of the research community from

the Planning Department - Directorate of Education of Babylon, according to the book facilitating the task, annex (1), as in Table (1).

Table (1) The size of the research community distributed by directorates, job and specialization

Total summation		Job type	Directorates
117	52 65	Guide guide	Hillah
26	12 14	Guide guide	Al-Kifl
28	13 15th	Guide guide	Abi Gharaq
35	16 19	Guide guide	Mahawil
27	20 7	Guide guide	Al Mashrou’
18	11 7	Guide guide	Al Imam
16	7 9	Guide guide	Al Hashimiyah
16	11 5	Guide guide	Al-Taleea
31	18 13	Guide guide	Al-Qasim
18	11 7	Guide guide	Al Midhatiya
18	11 7	Guide guide	Al Shomali
30	17 13	Guide guide	Al-Musayyab
24	11 13	Guide guide	Saddat
28	12 16	Guide guide	Alexandria
14	8 6	Guide guide	Jurf al-Nasr
446	230 216	Guide guide	total summation

NOTE: there is no specialzation in the table above!

Third - Samples of the Research

The sample is part of the community in which the study is being conducted, where the researcher chooses to conduct their study on according to special rules in order to properly represent the community (Al-Bayati et al., 1977: 235), in order for the researcher to be able to generalize the results of her research. In the school

Affiliated to the Directorate of Education of Babylon of both genders, a random sample of (200) male and female counselors was drawn, with (100) men and (100) female counselors, and the sample size represents (45%) of the original community, Table (2) illustrates this.

Table (2) shows a sample by directorate and job type

Number of research sample	number of counsellors	Job type	Directorates	sequence
52	**23** **29**	Guide guide	Hillah	1.
11	**5** **6**	Guide furniture	Al-Kifl	2.
13	**6** **7**	Guide guide	Abi Gharaq	3.
16	**7** **9**	Guide guide	Mahawil	4.
12	**9** **3**	Guide guide	Al Mashrou’	5.
8	**5** **3**	Guide guide	Al Imam	6.
7	**3** **4**	Guide guide	Al Hashimiyah	7.
7	**5** **2**	Guide guide	Al-Taleea	8.
14	**8** **6**	Guide guide	Al-Qasim	9.
8	**5** **3**	Guide guide	Al Midhatiya	10.
8	**5** **3**	Guide guide	Al Shomali	11.
14	**8** **6**	Guide guide	Al-Musayyab	12.
11	**5** **6**	Guide guide	Saddat	13.
13	**6** 7	Guide guide	Alexandria	14.
6	4 2	Guide guide	Jurf al-Nasr	15.
200	100 100	total summation		

Fourth: Research Tool

In order to achieve the objectives of the current research, two scales must be available that are compatible with the literature and theoretical frameworks of the research. The following is an explanation of the procedures taken by the researcher to build each of the research tools.

Cognitive Agility Scale

In order to measure the cognitive agility of educational counsellors, the researcher reviewed several measures and their studies in order to find a tool that serves to achieve the objectives of the current research, and these studies include the study (Elfiel, 2020) and the study of (2009, Good). Furthermore, the researcher did not rely on any pre-prepared scale for the following reasons:

1. Unavailability of a local scale (to the researcher's knowledge) that could serve to achieve the research objectives.
2. The lack of studies on cognitive agility and in line with the research community.

From the foregoing, this requires taking the steps to build the scale as follows:

1- Defining the concept of cognitive agility

After reviewing the literature related to this concept, the researcher defined cognitive agility as: it is a cognitive formation that leads to the individual's ability to perform better in different life situations.

2- Identify areas of cognitive agility

In order to determine the areas of cognitive agility, the researcher reviewed previous studies and literature, and accordingly the researcher identified three areas of cognitive agility, which are (cognitive openness - cognitive flexibility - focus of attention).

A- Cognitive openness

It is the individual's ability to reveal the precise details of the task, search for new experiences, and the ability to be creative and discard traditionalism

B- Cognitive flexibility

It is the ability of an individual to modify and alter their thoughts in response to stimuli and faced situations.

C- Focused attention

It is an individual's ability to remove distracting stimuli during work and focus on relevant skills in order to master the task.

3- Drafting the items of the scale: After the components of the scale have been identified and general definitions have been set for each component, the researcher has formulated and prepared its items, taking into consideration the purposes for which the scale is used and the characteristics and nature of the community to which it will be applied. Therefore, the researcher built (33) items on the scale with (3) domains, namely (cognitive openness - cognitive flexibility - focus of attention). By (11) items for each domain, and thus the number of items for the cognitive agility scale in its initial form became (33) items distributed over domains or components. It was formulated in a way that takes into account the presence of the feature as well as the fact that the content of the item is clear, and that the item contains only one idea and put in front of each item five alternatives: (always apply to me, often apply to me, sometimes apply to me, apply to me a little, never apply to me). The scores were given (5, 4, 3, 2, 1), respectively.

4- Statistical analysis of items

The statistical analysis of the items aims to verify the accuracy of the psychometric characteristics of the scale itself, because the psychometric characteristics of the scale depend to a large extent on the characteristics of its items, and because the logical analysis may not sometimes reveal its validity or accuracy. Whereas the statistical analysis of the scores reveals the accuracy of the items in measuring what they were set to measure (Ebel, 1972:339)). This process is an essential step in building any scale to reveal the psychometric properties of the items to choose the appropriate items or to exclude the inappropriate ones, and this in turn leads to verifying the validity and stability of the scale (Anastasi 1982:149). This procedure is necessary to distinguish between individuals in the measured trait, which means the scale's ability to distinguish between individuals who have high levels of the trait measured by the scale and individuals who have low scores of that trait, as it is necessary to exclude items that do not distinguish between the two categories of individuals and keep the ones that distinguish between them (Jaber and Kazem, 1983: 281).

Two methods were used to analyze the items

A- The two-terminal method

The discriminatory powers of the items were verified using the two peripheral groups method by applying the scale to the sample of the statistical analysis of (200) mentors and

counselors, if Nanlly sees (Nanlly, which is customary - that the number of members of the statistical analysis sample is (5) individuals for each item of the scale and not less than this amount, in order to reduce the occurrence of chance in the statistical analysis process.

(Majid, 2010:26) The answers were corrected, then the total score for each form was calculated, and all forms were arranged in descending order according to the total scores from the highest score to the lowest score. Then the two peripheral groups were determined in the total score, as the percentage (27%) the highest grade for selecting the senior group are (54) male and female counsellors. And a percentage of (27%) for the lowest scores to choose the lowest group, and their number is (54) male and female students, and their total is (108) male and female counsellors, and after applying the t-test for two independent samples, to find out the significance of the differences between the upper and lower groups for the scores of each item of the scale, All items of the scale, by comparing them with the tabular T-value of (1.96), were distinguished at a significance level of (0.05) and a degree of freedom (106).

B - The method of the item's relationship to the domain and the total score of the scale

This method is characterized by the process of presenting homogeneous items, so any item of the homogeneous scale that has been prepared measures what it was developed for (184: 2010, Anastasi). The researcher used the Pearson correlation coefficient to find the correlation between the scores of the sample members in each item of the cognitive agility scale with the total score of the scale. The validity was also verified by finding the method of the item degree and the degree of the field, and all items were significant at the level (0.05) when compared with the tabular value of the correlation coefficient. (0.098) to which it belongs as illustrated in table (5).

Stability: Stability means ensuring that almost the same results are obtained if the test is re-applied to the same group members and in the same circumstances (Faraj, 1980: 331), and it also means that the test of a high degree of accuracy, perfection, consistency, objectivity and consistency of what was developed for the purpose of measuring it, and there are several methods for calculating stability, and the researcher used the following methods to extract stability:

1- Test-Retest method

The method of re-testing is one of the most important methods in calculating stability, and it is summarized in selecting a sample of individuals, applying the test to them, and then re-testing them again in completely similar conditions to the conditions in which they were previously tested, and then calculating the correlation coefficient between their performance in both times. The correlation coefficient that we obtain expresses the stability of the test, and the correlation coefficient between the two applications is interpreted as the coefficient of stability, that is, the stability of the test results during the period between the first and second application of the test (Faraj, 1989: 299).

The researcher randomly chose a sample of (40) male and female counselors, (20) males and (20) females, and after two weeks of the first application of the scale, the researcher re-applied the same scale to the same sample, and the Pearson correlation coefficient was calculated, which represents the reliability coefficient in This method, as it appeared that its value was (0.80).

Alfa coefficient Method of Internal Consistency

In order to extract stability in this way, the Alpha Crow Nabach coefficient was used to extract the internal consistency of the current scale. The results came after applying the scale

to a sample consisting of (200) mentors and counselors of the research sample referred to in Table (2) that the Alpha Crow Nabach coefficient of the cognitive agility scale was (0.85).

The final image of the cognitive agility scale

After extracting the psychometric properties of the cognitive agility scale from its validity and reliability, the achievement goals orientation scale became composed of (30) items distributed over three areas (cognitive openness, cognitive flexibility, focused attention), five alternatives were placed in front of each paragraph, which are (always apply to me, Applies to me often, applies to me sometimes, applies to me a little, never applies to me), the scores were given (5, 4, 3, 2, 1) respectively. As for calculating the overall scale score, it is based on the total scores of each domain with the domains of cognitive agility (cognitive openness, cognitive flexibility, focused attention), and the score is calculated for each domain separately, and table (3) shows the statistical indicators for the domains of cognitive agility with Figure No. (1) shows its graph.

Table (3) *Statistical Indicators of the Cognitive Agility Scale*

116.22	Arithmetic mean
.456	standard error of the mean
117.00	Mediator
118	mode
6.451	standard deviation
41,620	variance
-.596	skewness
.172	standard error of torsion
1.305	flatness
.342	Standard error of flattening
40	Range
91	Lowest Score
131	highest score
23244	the total

Chapter Four

Presentation and interpretation of results

Identifying the cognitive agility of educational counselors

To identify this goal, the cognitive agility scale was applied to the research sample amounting to (200), and it was found that the arithmetic mean of the scores reached (116.22) degrees, with a standard deviation of (6.451) degrees, while the hypothetical average of the scale reached (90) degrees. And in order to identify the significance of the statistical difference between them, the t-test for one sample was used, and it was found that there was a statistically significant difference between them. Where the calculated t-value was (57.47), which is greater than the tabular value of (1.96) at a significance level of (0.05) and a degree of freedom (199) as illustrated in table (13).

Table (4) *Arithmetic mean, standard deviation, hypothetical mean, and (T) values of cognitive agility*

Significance difference	) valueT (		hypothetical mean	deviation normative	average Arithmetic	d freedom	the sample
	tabular	calculated					
significant	1,96	57.47	90	6.451	116.22	199	200

This means that the study sample possesses a good degree of cognitive agility, and this

result is consistent with the study of (Elfiel, 2020) and the study of (Mohammed, 2020).

This result can be attributed, according to the model (Good, 2009) that the educational counselors, through their guiding skills and their adaptive abilities, from student problems, adaptive performance in dynamic tasks, flexibility at the same time, and their speed in changing and diversifying the guiding methods used in dealing with student problems, approval of new ideas and experiences, and their eagerness for mental problems, and they always look for originality and novelty. Thus, this led to the improvement of their cognitive processing and decision-making processes, and increased the amount of persistence and perseverance in performing the guiding tasks to the fullest extent and the field survey of all guiding problems, (2012: 26-27 Good & Yeganeh,)

Identifying the differences in cognitive agility according to gender variable

To achieve this goal, the researcher applied the Pearson correlation coefficient between the two variables, and the value reached (.343) at the level of significance (0.05), and to find out the significance of the differences in the correlation according to gender variables, the researcher extracted the z-values as shown in table (5)

Table (5). *Correlation coefficients, correlation z values, and z values*

Gender	Number	Correlation	Z- values of correlation	Correlation z values	tabular value	Significance difference
male	100	.391	0.413	0.713	1.96	not significant
female	100	.301	0.310			

From the above table, we find that the value of the correlation coefficient for males was (391.), and the z value of the correlation coefficient was (0.413), and the value of the correlation coefficient for females was (301.), and the z value of the correlation coefficient was (0.310), and by extracting the face value by Fisher's test reached (0.713), which is lower than the tabular value of (1.96) at the level of significance (0.05), and this result indicates that there are no statistically significant differences according to the gender variable. This result contradicted the study of (Elfiel, 2020) and the study of (Mohammed, 2020)

The researcher also agrees in her opinion with the above scientific explanation.

The Conclusions

In light of the results that the researcher reached through analyzing and discussing the data, she concluded the following:

1- The educational counselors have cognitive agility, whether that is in males or females.
2- There are no differences in cognitive agility according to the gender variable (males - females).

Recommendations

Based on the results of the current research, the researcher recommends

1- Work to give a role to the educational counselor in schools in all its levels (elementary, intermediate, and preparatory) while providing all the counselor needs in their workplace in order to help students solve their problems and prevent them from resorting to deviant behaviors that lead students to destruction.
2- To the Ministry of Education, a brochure (a booklet) was made, distributed throughout the

general directorates affiliated to the Ministry of Education, working on specialized scientific courses that help the educational counselor in how to instill the signs and roots of cognitive agility among their students because they have a major role in achieving life successes.

Suggestions

In light of the results of the current research, the researcher suggests the following

1- Conducting a study on cognitive agility on other samples and comparing it with public and private schools.
2- Conducting studies that include research variables for other segments of society (primary school teachers, high school teachers).
3- Conducting studies to identify the correlation between cognitive agility and other variables such as (academic perfection, positive attitude, academic organization).

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