Assessing the extent to which changes in the cognitive and emotional needs of gifted students are met in light of the Corona Virus pandemic

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Abstract: Experts agree that gifted students have unique cognitive and emotional needs which are very important. Therefore, cognitive and emotional learning should be included in the curriculum. In view of the current circumstances of the Corona virus pandemic, and the transformation of education into distance learning, consequent changes have occurred in cognitive and emotional needs of gifted students. Hence, this study aims to identify the changes of cognitive and emotional needs of these students. In addition to this, this study will also assess the extent to which changes in cognitive and emotional needs of gifted students are met. A quantitative survey approach is used in this study. Psychometric properties of the instrument using RaschModel Analysis were verified on gifted students in high school. The findings showed that the mean of cognitive and emotional dimensions indicated medium assessment level. The level of assessment of meeting the changes in cognitive and emotional needs is in favor of females and scientific branch. Finally, the study recommended the development of an effective emotional and cognitive curriculum, a professional development for gifted teachers and leaders, and a cooperation partnership between parents, schools and gifted students, in order to identify the needs of gifted students and their continuous changes.
Keywords: Gifted and talented students, Cognitive needs; Emotional needs

1. Introduction

Currently, the world is witnessing a great event, which may threaten the education, which may be the most dangerous global pandemic in our contemporary time. The new Corona epidemic "COVID-19" has overridden barriers of time and space, which led to comprehensive changes in the educational system, whether university education or public education, where learning transformed into virtual or distance learning. In addition to the changes that have occurred to learners and teachers in dealing with the new distance learning system. Therefore, we should overcome barriers, change the norms, and create everything new and developed systems. This phase requires individuals who capable of keeping therir pace and lead it to make more scientific achievements to improve the quality of human life. This responsibility falls to learners in general, and gifted and talented in particular. Therefore, they need attention, care, and they need to direct their energies and abilities to keep their pace with the rapid and urgent changes and developments (Mukhaimer, 2013).

Distance learning is one of the outputs of modern cognitive education, and it is one of the modern methods of learning, which mainly depends on the teacher giving his lectures from the virtual classroom. The student receives the lecture anywhere in the world, and the virtual classroom is opened to everyone for interactive discussion and classroom participation in a way that benefits all students. Distance education is a new and advanced method that relies on the use of knowledge management and the broad participation of learners as part of the tools of modern education. It is a complete and comprehensive system for disseminating knowledge and education at the highest level. Distance education, with all its audio-visual resources, illustrations and animations, has changed from "indoctrination" to "interactive" style accompanied by visual and audio effects that make the educational process more attractive (Traxler, 2018; Bozkurt, 2019).

The gifted students are a national wealth because they are the focus of the creative process (Al-Tal, 2006). Society depends on them in its progress and renaissance. This wealth must be preserved, developed, and invested, in addition to achieving educational, psychological, and social care for the gifted students in the different stages of education, and to work to support creative education in the educational process to provide distinguished education for all that contributes to preparing generations of scholars. It also removes all obstacles that prevents them from achieving their talent (Manna, 2014).

Gifted and talented students are the foundation and real wealth in the development, advancement of societies, and building plans, so they need a lot of knowledge, observation, and care in terms of their needs, desires, interests, and solving the problems they face (Alsalmi, 2018). Gifted and talented students have their own needs, such as developing thinking skills, developing creativity in solving problems, choosing appropriate materials, and methods of teaching. Understanding the cognitive and emotional needs, and those students need a special type of

counseling services due to the difficulties they suffer, especially in the social, emotional, and academic fields (Rawashda, 2015). In order to satisfy these needs, they must be revealed and included in their curricula.

Scholars have classified needs into five areas: cognitive, emotional, social, intuitive, and physical (Almahasneh, 2001; Hamza, 2013; Hawash, 2012). Holing worth summarized the needs of gifted and talented students by the existence of social and emotional needs, inadequate curricula, lack of response to the school climate, and a gap between the mental and emotional level (Almahasneh, 2001). Jarwan (2000-2002) classified that the problem of gifted students are two types which are cognitive problems such as inadequate curricula and low academic achievement, and emotional problems such as hypersensitivity, emotional intensity, and perfectionism. If the cognitive needs of gifted and talented students are not met, problems such as frustration, boredom, and loss of respect for others may occur (Hamza, 2013; Hawash, 2012).

In 1955 Cohen, Stotland and Wolfe conducted studies on the cognitive motivation, and this lead to emerge the concept of need for cognitive (Coutinho, 2006). The need for cognitive is the motivation for the desire to know, understand, process information, formulate, and solve problems, in addition, it is the internal motivation to engage in problem-solving activities. There is also a relationship between the need for cognitive, success and academic performance (Bani-Ahmad, 2014). Students with high levels of need for cognitive use comprehensive and deep learning strategies, tend to organize and evaluate information (Coutinho, 2006), and have more creative outputs (Dollinger, 2003). Need of Cognitive has a major role in developing the ability to think, understand, observe, be aware, discover, induct, analyze, synthesize, recognizing, interpreting, and predicting relationships (Alzahir, 2009; Bani-Ahmad, 2014). The social, emotional, and cognitive development of gifted and talented students continues for life (Cross, 2009).

Emotional problems occupied the largest percentage among other problems, and it was more common among gifted students (Ahmadi, 2005). The gifted have various emotional needs, such as the inability to self-understanding, introversion, and depression (Silverman, 1993). Jarwan (2000) identified emotional problems as hypersensitivity, emotional intensity, and perfectionism.

There is a close correlation between meeting the cognitive and emotional needs of gifted and talented students, and between effective teaching and performance and academic achievement, which makes the teaching process more effective, and leads to raising the competence and mental and cognitive abilities of gifted and talented students (Moltzen, 2004).

2. Review of Related Studies

Several studies have examined the need for cognitive and its relationship to some variables such as effective cognitive engagement, self-consciousness, performance expectations, strategic flexibility, and learning styles of university students (Al-Alwan et al., 2013; Dickhauser&Reinhard, 2009; Evans et al., 2003; Jaradat& Al-Ali, 2010; Shtiat, 2012). The study by Al-Adwan& Al-Khayat (2015) aimed to identify the cognitive and emotional needs of gifted students in Jordan. The results showed that students have more emotional needs than cognitive needs. The average student's performance on emotional needs is higher than on post-cognitive needs.

Gifted and talented students and their teachers must understand the cognitive and emotional needs and problems to provide stimuli that are consistent with their emotions, motivate them towards the learning process, evaluate, and redevelop teaching methods (Al-Adwan& Al-Khayat, 2015; Needham, 2012).

Gifted and talented students have unique cognitive and emotional needs. Since schools imposed educational goals, cognitive and emotional for every gifted and talented student. Therefore, are the basic elements included in the gifted cognitive and emotional curriculum under the conditions of distance learning? yes; therefore, they are important to develop programs, affective curriculum, and supportive system to meet their specific cognitive and emotional needs (Moon, 2006; Phelan, 2018). Many teachers lack the skill to deal with the cognitive and emotional problems and the needs of the gifted and talented (McGee &Hughes, 2011). Some researchers such as (Yoo& Moon, 2006; Wood, 2010) focused on the importance of educational counseling and the emotional concerns of the gifted as they should be given opportunities and enough time to listen to their problems.

The interest of scholars and researchers in gifted and talented students is increasing, thus they studied their cognitive, emotional needs etc., For investing their capabilities and energies to achieve success for themselves and their countries, they identified the most important cognitive and emotional needs. Considering this current global pandemic, education has shifted from traditional education to virtual education. Accordingly, changes occurred in cognitive and emotional needs, and perhaps there is an urgent need to conduct such a study, which aims to identify the changes that have occurred in the cognitive and emotional needs of gifted and talented students, and to provide more care, attention, and guidance programs for them. Therefore, evaluation is very important in following-up

and developing these needs to keep pace with developments, rapid growth in knowledge, and continuous changes in the educational system.

Lack of interest in meeting the needs of gifted and talented students may contribute to problems, for example, lack of their comfort that effect on their achievement, in addition to delaying their mental and social development (Al-Shibly&Alramamneh, 2019; Peterson, 2006). Hence, this study aimes to identify the changes of cognitive and emotional needs of gifted and talented students. In addition, assessing the extent to which changes in the cognitive and emotional needs of gifted students are met in light of the Corona Virus pandemic. Furthermore, the research questions in this article are the following: What is the extent to which the changes in cognitive and emotional needs of gifted and talented students are met from their perspectives? and, is there any significant difference in the extent to meeting the changes in the cognitive and emotional needs due to gender, academic branch, and educational level?.

3. Methodology

This study used a quantitative descriptive survey approach. The population consisted of every gifted and talented high school student at Al-Ahsa region during the academic year 2020/2021. Al-Ahsa region has been randomly selected from Saudi Arabia Governorates. The sample of this study consisted of 200 gifted and talented high school students, and to achieve the objectives of the study and to answer the research questions, an instrument was developed in this study. The instrument consisted of two dimensions: assessing the extent to meet the changes of emotional needs, and assessing the extent which changes in the cognitive needs.

After reviewing the past studies and based on the opinions of a group of specialists, the cognitive and emotional needs of gifted and talented students in Saudi Arabia were identified. In light of the Corona virus pandemic and the education has turned into distance education, the researcher studied the changes that have occurred in the cognitive and emotional needs. These changes in needs were collected and items were derived to assess meeting the new needs of gifted and talented students. Preliminary copy of the study tool consisted of 47 items, distributed into two dimensions: the cognitive dimension that comprised of 23 items, and the emotional dimension that comprised of 24 items.

3.1. Verifying the validity and reliability of the scale

The validity of the tool was verified. The instrument was examined by 7 experts from King Faisal University, and based on their opinions, some items were modified and reformulated, also some items were omitted. To ensure the validity and reliability, the instruments were piloted with some 30 gifted and talented high school students. Responses and feedback obtained were used in modifying the final instrument. The final copy of the instrument became ready. It consisted of 29 items. The data were analyzed using SPSS version 26. In addition, it analyzed and evaluated according to Rasch model using Winsteps software version 3.68.2.Rasch model. RM is important because it achieves the objective property and independence in psychological and educational measurement, it also provides the reliability of the scale because it achieves the independence property. The use of Rasch model in the construction of a scale indicates the availability of objective in the measurement of ability variable, which means verifying the validity and reliability of the estimates of both individuals' and items scale (McCamey, 2015; Kim & Hong, 2004)). Hence, it should be verified: the values of MNSQ for infit lies between 0.4 and 1.5 to be appropriate, item polarity (Point Measure Correlation), the acceptable value for PTMEA lies between 0.2 and1.0, standardized fit statistic (Zstd) value should be lies between -2 and 2, and the dimensionality also used to verify both content and construct validity (AlAli &Shehab, 2020, Linacre, 2009; Bond, 2015; Fisher, 2007; Aziz, 2010).7 items from two dimensions of the scale were omitted according to MNSQ value of infit and outfit because it was greater than 1.5.

Table 1 Item polarity and fit analysis of assessing extent of meet the changes of emotional and cognitive needs.

Table.1. Item polarity and fit analysis of assessing extent of meet the changes of emotional and cognitive needs**.**

Items	measure	Model S.E	Infit MNSQ	ZSTD	Outfit MNSQ	ZSTD	Pt-measure CORR
E7	.17	0.29	1.47	1.8	1.49	1.9	0.22

E12	.24	0.39	1.31	1.3	1.26	1.5	0.25
E9	.22	0.23	1.40	1.6	1.39	1.8	0.30
K13	.27	0.22	1.21	.8	1.41	1.9	0.34
K12	.18	0.19	1.46	1.7	1.49	1.9	0.34
E8	.33	0.22	1.13	.7	1.11	0.6	0.35
E3	.16	0.29	1.44	1.6	1.46	1.7	0.36
E13	.04	0.37	1.04	0.2	.99	0.1	0.36
E14	.08	0.35	1.09	0.5	1.09	0.6	0.38
E11	.48	0.26	1.13	0.6	1.17	0.7	0.43
E4	.19	0.24	.96	0.1	.96	0.0	0.46
E6	.46	0.32	1.08	0.4	1.05	0.3	0.47
E10	.27	0.24	1.15	0.6	1.15	0.5	0.49
E15	.43	0.39	.93	-0.3	.93	-0.3	0.50
K5	.26	0.33	1.04	0.0	.98	-0.8	0.57
K11	.19	0.26	.89	-0.4	.87	-0.8	0.57
E2	.25	0.33	.84	0.3	.83	-1.3	0.59
E5	.37	0.37	0.83	-0.9	.83	0.7	0.59
K9	.28	0.29	.71	-1.4	.69	-1.1	0.60
K1	.27	0.34	1.19	0.5	.75	-0.7	0.60
K2	.32	0.28	0.70	-1.3	.76	-0.8	0.62
E1	.19	0.26	.80	-0.5	.71	-1.0	0.68
K8	.18	0.27	.78	-0.7	.62	-1.4	0.70
K10	.37	0.38	0.72	-1.0	0.58	-1.7	0.71
K7	.16	0.26	.63	-1.5	.65	-1.5	0.76
K14	.38	0.32	0.57	-1.8	.62	-1.8	0.79
K3	.31	0.26	.56	-1.7	.66	-1.7	0.80
K4	.11	0.30	.63	-1.4	.62	-1.4	0.83
K6	.25	0.28	.56	-1.6	.56	-1.6	0.85

Table 1 shows a good item correlation and an item fit for a scale. According to Rasch model, these values indicated very good items, and all the items were appropriate and acceptable for construct validity.

The dimension of changes of cognitive and emotional needs constructs were tested using dimensionality analysis of Rasch model in order to determine the scale measured in one dimension and one direction. Tables 2 below shows that the raw variance explained by measures is 74.9%, and unexplained variance in 1st contrast is 7.6. Hence, dimensionality data result was fit and appropriate to Rasch model.

Table 2 Item Dimensionality of changes of cognitive and emotional needs Scale

	Empirical			Modeled
Total raw variance in observations	44.2	100%		100%
Raw variance explained by measures	25.2	46.4%		37.1%
Raw variance explained by persons	7.0	15.8%		16.9%
Raw Variance explained by items	15.6	20.8%		21.1%
Raw unexplained variance (total)	35.0	63.4%	100.0%	62.9%
Unexplained var.in 1st contrast	6.1	13.9%	21.2%	
Unexplained var.in 2nd contrast	4.4	9.7%	14.8%	
Unexplained var.in 3rd contrast	3.4	7.0%	10.7%	
Unexplained variance in 4th contrast	3.7	5.2%	7.9%	
Unexplained variance in 5th contrast	3.2	5.7%	7.2%	

To ensure the reliability using Rasch model it should be verified by the person and item reliability, and the criteria of reliability should be 50% and more. Furthermore, the item and the person separation values should be more than 2 to be acceptable (Mofreh et al., 2017; Fisher, 2007). Tables 3 and 4 below shows that the person separation and reliability, and item separation and reliability for changes of cognitive and emotional needs scale. The person and item reliability are greater than 0.5, which are 0.88 and 0.78 respectively. Furthermore, the person and item separation are greater than 2, which are 2.73 and 2.87 respectively. Based on Rasch model these reliability values indicate that the scale has good degree of reliability.

Table 3 Person Separation and Reliability for changes of cognitive and emotional needs Scale

	Raw Score	Count	Measure	Error	Infit		Outfit	
					MNSQ	ZSTD	MNSQ	ZSTD
Mean	105.4	29.0	.54	.29	1.07	-0.1	1.08	-.1
S.D.	12.0	.0	.87	.04	0.59	2.1	0.55	2.0
Real Rmse	.33							
ADJ.SD	0.91							
Separation	2.73							
Person Reliability	0.88							

Table 4 Item Separation and Reliability for changes of cognitive and emotional needs Scale

	Raw Score	Count	Measure	Error	Infit		Outfit	
					MNSQ	ZSTD	MNSQ	ZSTD
Mean	90.9	25.0	-1.43	0.32	1	-0.1	1.08	0.1
S.D.	13.5	0.0	0.68	0.05	0.32	1.2	0.50	1.4
Real Rmse	0.34							
ADJ.SD	0.59							
Separation	2.87							
Item Reliability	0.78							

4. Findings

A 5-point Likert scale was used to classify students' responses, and to determine the level of assessing the extent of to which changes in the cognitive and emotional needs of gifted students were met and adopted on following levels:

Range	*level of assessment changes in needs*
Less than 2.33	Lowlevel of meeting changes in need
2.34 – 3.66	Medium level of meeting changes in need
3.67 – 5.00	High level of meeting changes in need

Answering the first question: what are the cognitive and emotional needs after the changes that occurred due to the Corona pandemic?

The data were analyzed using SPSS version 26. The means, standard deviation, and the level of changes in needs were extracted as shown in Table 6 below.

Table 5 The means, standard deviation and the level of assessing extent of meet the changes of emotional and cognitive needs for a scale

Items	N	Mean	Std. Deviation	Level of assessment
k3	150	3.6000	.98308	Medium
k7	150	3.5200	1.02793	Medium
k5	150	3.5200	.85703	Medium
k2	150	3.4933	.87275	Medium
k8	150	3.4800	.90279	Medium
k13	150	3.4800	.80868	Medium
k9	150	3.4733	.89515	Medium
k14	150	3.4400	1.10204	Medium
k10	150	3.4400	.85515	Medium
k6	150	3.4400	.98635	Medium
k4	150	3.4000	1.06185	Medium
k11	150	3.3600	1.05729	Medium
k12	150	3.3200	1.22786	Medium
k1	150	3.3200	1.08881	Medium
Cognitive Dimension	150	3.4490	.53958	Medium
E5	150	3.8800	.81858	*high*
E14	150	3.7200	.72464	*high*
E15	150	3.6800	.88477	*high*
E12	150	3.5667	.95127	Medium
E11	150	3.5200	.80868	Medium
E7	150	3.4933	.91773	Medium
E6	150	3.4667	.93167	Medium
E13	150	3.4400	.85515	Medium
E3	150	3.2000	1.09911	Medium
E10	150	3.2000	1.06185	Medium
E4	150	2.8800	.65457	Medium
E2	150	2.3333	.60940	Low
E1	150	2.3133	.83655	Low
E9	150	2.1333	.99439	Low
E8	150	2.0800	.74654	Low
Emotional Dimension	150	3.1271	.33197	Medium
Whole Scale	150	3.2881	.38278	Medium

Table 5 shows that the items scores in cognitive dimension ranked first with mean of (3.45) and standard deviation of (0.54), while the items scores in Emotional dimension had a mean of (3.13) and standard deviation of (0.33). In general, the mean of cognitive and emotional dimensions indicated medium assessment level.

It also becomes clear that the most satisfying cognitive needs after the changes are K3, K7, K5, K2, and K8. While the most satisfying emotional needs after the changes are E5, E14, E15, E12, and E11.

T- Test and one-way analysis of variance were used to answer of the second question: is there any significant difference in the extent meeting the changes in the cognitive and emotional needs due to gender, academic branch and educational level?

Table 6 below shows the results of T-Test for differences between means according to gender and academic branch.

Table 6 The results of T-Test for differences between means according to gender and academic branch

Variables and Constructs			No.	Mean	S. D.	T value	Sig.
Gender	Cognitive	Male	84	3.3053	.52773	3.848	0.000
		Female	66	3.6320	.50106		
	Emotional	Male	84	3.0825	.36156	1.871	0.063
		Female	66	3.1838	.28262		
	Whole dimensions	Male	84	3.1939	.41098	**3.527**	**0.001**
		Female	66	3.4079	.30683		
Academic Branch	Cognitive	Literary	42	3.3912	.70397	0.819	0.000
		Scientific	108	3.4716	.46229		
	Emotional	Literary	42	2.9746	.44220	3.651	0.002
		Scientific	108	3.1864	.25663		
	Whole dimensions	Literary	42	3.1829	.54035	**2.124**	**0.000**
		Scientific	108	3.3290	.29346		

Table 6 shows that the value of (t =3.527) for whole dimensions indicated that there were statistically significant differences for the differences between the means. In other words, there were statistically significant differences between the responses of the sample on the extent meeting the changes in the cognitive and emotional needs according to gender in favor of female. The value of (t =2.124) for the whole dimensions indicated that there was statistically significant difference for the differences between the means, where the significant level was less than (0.05). In other words, there were statistically significant differences between the responses of the sample on the extent meeting the changes in the cognitive and emotional needs according to academic branch in favor of scientific branch. Table 8 below shows the results of Analysis of Variance for differences between means according to educational level.

Table 7 The results of analysis of variance of differences among the means of responses of the sample on a scale based on educational level

variance source			Sum of Squares	df	Mean Square	F	Sig.
Academic Rank	AVK	Between Groups	.374	2	.187	.639	.529
		Within Groups	43.007	147	.293		
		Total	43.381	149			
	AVE	Between Groups	2.487	2	1.244	13.119	.062
		Within Groups	13.934	147	.095		
		Total	16.421	149			
	Whole dimensions	Between Groups	.461	2	.231	1.587	.208
		Within Groups	21.370	147	.145		
		Total	21.381	149			

Table 7 showed that there were no statistically significant differences in all dimensions on the scale of changes in cognitive and emotional needs based on educational level, where the significant level was greater than 0.05. In general, there were no statistically significant differences in a whole scale based on educational level.

5. Discussion of the results

The results showed that the means of the sample responses were average. This indicates that the level of existence of changes in cognitive and emotional needs was medium. In addition, the level of assessing the extent of meeting the changes of emotional and cognitive needs was medium as shown in Table7 previously.

As for the cognitive dimension, the results showed that there was a lack among gifted students in concepts and terminology, and the possession of cognitive strategies related to the courses during distance learning. This indicates that distance learning is less effective and efficient than traditional education. In addition to that, the lack of the gifted ability to organize their time to study correctly, the lack of distance learning outcomes for courses in advance, and the lack of ability to enrich the specific educational material during the distance learning process. On the other side, the emotional dimension results showed that the school counselor's lack of communication with the gifted students through the platform and social media, so this led to the lack in the learning relaxation skills, and developing feelings of satisfaction, pleasure and comfort. Furthermore, to guide them on how to deal with provocative situations through a conversation via social media. The lack of support and encouragement by expressing through the platform and social media or through distant communication and the lack of cultural and entertainment competitions through platforms or social media. The result of this study consistent with the study of (Alramamneh, 2019; Yoo& Moon, 2006; Wood, 2010) in the importance of the role of counseling in meeting emotional needs and supporting talented people by giving them adequate opportunities to express their emotional problems.

Through what the results indicated, and considering these circumstances, gifted students are likely have emotional and cognitive concerns, which may be related to the characteristics associated with the talent (Peterson, 2006). It was found a lack of developmental counseling programs for gifted students in the school in an organized manner where the school and community interest are focused on other aspects. The emotional and cognitive aspects are overlooked because the occurrence of achievement, creativity, innovation, and excellence are by the extent of meeting that the changes of cognitive and emotional needs of gifted students. The developed curricula have a major role in facing challenges, such as these changes in cognitive and emotional needs. The infrastructure also has a major role in terms of providing a strong Internet, developed equipment, and materials, in addition to the process of presenting lessons on platforms in a creative and innovative way that mimics reality and takes into account individual differences.

The findings showed that there are differences in the level of assessing the extent to meet the changes in cognitive and emotional needs in favor of females, because females are trying to prove themselves in all fields and they are no less efficient than males. Females are more capable than males to perceive hints and details, speed in processing information, organizing ideas, able to discover weaknesses, find differences in situations that lack information. Females' have an ambition to keep pace with technological progress. It is not surprising that the results point in favor of females, at a time when Saudi Arabia is witnessing an educational and social renaissance, with increasing attention to women specially the gifted ones, and this may refer to the suffering of males in the face of psychological pressures. The failure to fill leisure time effectively and considering that the talented people are also very sensitive, so the simplest things affect them. This means that the quantity and type of their emotional reactions do not correspond to the nature of the exciting situations that they face. They tend to hide their feelings, because they believe that showing it gives them criticism and disapproval, suppressing such emotions leads to increasing the psychological pressure and inability to cope and compatibility. There may be a contradiction in the style of socialization of talented males. sometimes they are given the freedom and opportunity to practice their experiences and skills, and sometimes they are deprived of it, which leads to feeling anxious. Talented students have high mental abilities, tend to love knowledge and exploration, desire renewal, and look for activities that meet and challenge their desires. This may not be available to some of them, because they are from ordinary families. They focus on achievement and fulfillment of duties; hence this is done quickly. This saves a lot of time and thus lose it. Therefore, it should be need for guidance and direction.

This result also can be explained by the seriousness of females and how they are interest in education more than males. Females tend to pay attention to education, and they have an unexplainable love for knowledge because it helps them adapt to the current situation. In addition to their pursuit of excellence, which can only be achieved through research and investigation of various knowledge. The result of this study consistent with the study of (Bukaiei, 2013; Al-Awadi, & Al-Kinani, 2012;). However, it is inconsistent with the study of (Al-Shibly&Alramamneh, 2019; Al-Adwan& Al-Khayat, 2015; Jaradat and Al-Ali, 2010; Mukhaimer, 2013), whose results indicated that there are no statistically significant differences between males and females.

Regarding of academic rank, the results showed that there are statistically significant differences on the extent meeting the changes in the cognitive and emotional needs according to academic branch in favor of scientific branch. because gifted Students of the scientific branch have a deeper treatment level, due to the complex nature of the scientific course and the difficult tasks. Therefore, they can organize their time and invest in it more than others, in order to achieve the growth of their capabilities and aptitudes. They are better able to understand their

cognitive, emotional, psychological, and social needs in light of the surrounding circumstances. This result consistent with the study of (Bani-Ahmad, 2014). However, it is inconsistent with the study of (Jaradat and Al-Ali, 2010)

As for the educational level, the results showed that there are no statistically significant differences in all dimensions of the scale because all students are gifted, mature and conscious, they are also capable of facing any hard conditions. The services and programs provided in schools for all stages and levels are similar, with emphasis on the personal needs and academic field of the gifted. In other words, integrated care is provided in all developmental aspects for all stages to meet cognitive and emotional needs. All students receive equal attention, in terms of their cognitive and emotional development, and their acquisition of various skills and abilities. This result consistent with the study of (Rawashda, 2015; Al-Zahrani, 2014; Bani-Ahmad, 2014). However, it is inconsistent with the study of (Al-Shibly&Alramamneh, 2019; Alsalmi, 2018; Al Mawali, 2013; Al-Tarawneh, 2016; Manna, 2014; Yoo& Moon, 2006). Inconsistency of the study results with previous studies is due to varying time between this study and previous studies. Furthermore, they belong to different environments and population of study.

6. Recommendation

- Gifted people have unique cognitive and emotional needs, which are constantly changing, so it is imperative for parents and teachers to constantly collaborate to identify these changes in needs and interests, and then to put forward creative solutions and ideas in order to make an informed and clear decision about these changes that must be addressed. After that, an action plan should be developed, and each plays the role according to their knowledge of the gifted and their motivations.
- Strengthening emotional and cognitive Curricula. In other words, developing an effective emotional and cognitive curriculum.
- Professional development for gifted teachers and leaders, and providing ideas and strategies for gifted program coordinators to implement the emotional and cognitive curriculum in an effective manner across platforms and social media.
- A cooperation partnership between parents, schools, and gifted students to identify the needs of gifted students and their continuous changes.
- Activating the role of the school counselor more and communicate with the gifted constantly to know their cognitive and emotional needs, encourage them, and raise their spirits through social media.
- The results of the study can be used as a tool to stimulate the emotional and cognitive education of the gifted, leading to the creation of a generation of gifted people with cognitive and emotional intelligence.

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