

Learning Styles of Gifted and Non- Gifted Students in Tafila Governorate

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Abstract

This study aimed to investigate learning styles of gifted and non- gifted students, and its relationship with school type, gender and grade. The sample of this study consists of 90 (Female=41, Male=49) gifted Students, and 90 (Female=43, Male=47) non- gifted student in Tafila Governorate - Hashemite Kingdom of Jordan, for the second semester of the academic year 2012/2013. Learning style Questionnaire of (Jaber & Quran, 2004) was adopted as a study instrument to identify students' learning styles. The results indicated that the most preferred learning styles amongst gifted students are: visual/non-verbal style, followed by Kinesthetic Learning style, visual/verbal style and auditory learning style respectively. Whereas the most preferred learning styles for non- gifted students are: auditory learning style, followed by visual/verbal style, visual/non-verbal Style, and kinesthetic learning style.

Significant differences were found in all learning styles between gifted and non- gifted students were in favor of gifted students. There were no statistically significant differences in learning styles between gifted and non- gifted students due to the gender variable; and statistical significant differences were found among learning styles students due to their grade in favor the tenth grade.

Key Words: learning style, gifted students, Non- gifted students, gifted school

1. Introduction

As a result of the Information and communications' revolution, challenges are facing schools in the field of presenting effective education, achieving the philosophy of education, and finding the productive innovative student. As competent as the teacher is, this task can only be achieved through qualitative development of the rest of the elements of the learning and teaching process, the syllabus contents, and the resources used to implement it through some proceedings, such as:

- The organization of the syllabus content and the methods of its implementation on new basis.
- The development of new experiences for the syllabus developers and the teachers with respect to the new techniques and methods of course preparation.
- Training the teachers for utilizing learning strategies according to the lesson goals and the nature of educational events.
- Giving the opportunity to teachers to renovate and innovate while applying the syllabus, and varying the theoretical and applied activities, so the students at different levels find what suits each of them with respect to individual differences (Mustafa, 2011).

The teachers' consideration to the students' learning styles helps in decreasing the students' failures, increasing their grades, and enhancing a concept of self worth and confidence. It also helps the correct and diverse planning of class activities with respect to the students preferences, and makes them more flexible in educational events, moreover, helps them to create a class environment dominated by an atmosphere of communication and idea exchange between them and their students (Al Shoura, 2012).

The teachers' perceptions of students' learning styles help them to overcome the learning difficulties, and assist them to invest in their capabilities and preparation for exams (Qatami & Qatami, 2000; Fleming, 2004). On this regard, Rassool and Rawaf (2008), emphasized that understanding students' learning styles preferences can improve learning process. Some Educational articles indicated a significant increase in each of the students' academic accomplishments and their degree of discipline in school, when their education contains their preferred learning styles (Grigorenko & Sternberg 1997).

The conclusion of the (Tam,1997) study mentioned in the (Al Mane', 2005) supported the effect of implementing the students' preferred learning styles in Hong Kong high schools on their attitudes towards school and their academic achievements. The study also concluded positive change in the students' academic achievement and attitude towards school after their preferred learning styles were implemented.

When teachers take into consideration the variety of learning styles that are presented in the classroom; that will lead to improve students' achievement and motivation. (Dunn & Dunn, 2005); Giving students the chance to learn using their preferred style has a positive effect on generating motives for them and increasing their motivation to learn (Snyder, 2000).

Dunn and Dunn (2008); Dunn (2009); and Dun and Dun (2002) assumed that it is possible to identify the preferred learning styles of a student in educational environments, and also it's possible to use various educational procedures and alter the educational environments to suit the student's preferred learning style. If these two assumptions were implied, it is expected that the student's eagerness to learn would be enhanced. Hence, Miller (2000) called for identifying the student's preferred learning style with which he learns best, and using this data in designing the procedures and educational situations which fit the student's style. In this regard, Smith and Dalton (2005) mentioned that research about learning style indicates that when the learner has a fair understanding of his or her own style he or she learns more effectively.

Since this study addressed learning styles based on the senses (Visual - verbal, visual - non-verbal, or Auditory or kinesthetic) due to their importance from an implementary viewpoint in learning (Coffield, Moseley & Ecclestone, 2006; Sayles & Shelton, 2005); these styles will be discussed in details.

2. Learning Styles

The people receive data using their various senses, but they tend to prefer one more than the others. In harmony with this study's goals, the Dunn and Dunn (2002) ranking has been utilized for the attributes of some learning styles for the students and the learning strategy that is suitable for each style, and they are listed below:

Visual/Non-verbal Learner: a visual learner is known as the learner that relies primarily on his sight to intake his data, which are things he sees such as written information and images.

The learner needs to see things to know them, remembers what he sees or writes, remembers maps and figures and graphs. He would learn better through organizing and seeing relationships, he likes learning in an overall inclusive way, tends to be quiet, and does not talk a lot (Silverman, 2012, Abiator, 2001). Hence the teacher needs to use visual teaching methods in many shapes and figures which are well organized (Petraakis, 2003).

The Visual/verbal learner: Known as the one who learns better when the data is shown to him visually or written. It is preferred that headlines are input before explanation. He highly benefits from the information in the book and class notes, prefers to study in a quiet room. His preferred learning strategy is writing notes in class to facilitate remembering the information. He prefers using graphs or explanatory drawings, and also uses color coding of the information (Jaber & Quraan, 2004).

Auditory Learner: Known as the one who learns through listening. An auditory learner depends on hearing and speaking as a main way of learning. They're also good at oral exams, good at writing responses to lectures. Auditory learners discussion and listening, tend to use vocals, remember the people's names more than faces, talk and resolve their problems by talking, and express their emotions and agitations verbally (Abiator, 2001; Kostelnik, Soderman.& Whiren, 2004).

He enjoys class discussions, finds relief in information accompanied by sound effects, prefers that the new information and skills are presented by Auditory Learning Style, and it would be beneficial to encourage Auditory Learning Style learners to read the printed information out loud (Al olwan, 2010).

Kinesthetic Learner: Known as the one who uses his fingers and hands, he usually remembers more easily when he writes or moves his fingers (Jaber & Quran, 2004). He learns when he does things with his hands, enjoys lessons that include practical activities, finds difficulty in sitting quietly, has good Kinesthetic cooperation and physical and athletic capabilities, he can collect and assemble things well and enjoy it (Khateeb and Hadidi,2004; and Jaber and Quran,2004; and Leaver,1997).

3. Literature Review

By revising literature related to the field of learning styles, we find a variety of researches and studies, like the The Study accomplished by Abu Awwad and Nofal (2012), which aimed at investigating the validity and reliability indicators of the Felder-Soloman measure of learning styles and its preference by the Jordanian Universities' students. The study sample consisted of (455) male and female students from the Jordanian colleges' students. The study's results indicated the prevalence of the sensory learning style in the first place. The results also have shown statistical significances in the sensory/ intuitive learning style which are justified by gender and interaction between the grade and specialty, as well as statistical significance in the visual/oral learning style justified by gender.

The Duncan study (2012) "An Examination of the Learning Styles of Brazilian Senior High School Students Attending Public and Private Schools in a Metropolitan Area of Brazil", aimed at investigating the relationships between students' learning styles and gender, age, attitudes toward school and their plans to attend college". She used a Portuguese version of the Felder-Solomon Index of Learning Styles, and the study sample was 351 students. In this research, she stated that "Sensing learners were almost three times the number of intuitive learners. Visual learners were almost double the number of verbal learners. Overall the results demonstrated that the majority of students...indicated preference for active, sensing, visual and sequential learning style domains" (p: 2-3).

The Lam, Lam & Chan (2011) "study investigated the learning styles of two groups of students, all aged about 14. They were studying in the third secondary grade (S3). The first group of students were four hundred twenty seven (427) students considered as gifted students, identified as those who were found to do well academically especially in science subjects. The second group represented the one thousand one hundred fifteen (1115), other students normally presented in the school. The first group students were participants of a Science Learning Enhancement Program. The Program was held during the years 2008-2010, to provide further learning opportunities for gifted students in a host of science disciplines. The disciplines included Biological Sciences, Physical Sciences and Mathematical Sciences. The results revealed that the first group students were more kinesthetic and better group learners than normal students. In addition, they were more willing to express themselves in writing rather than orally. Understanding of these results enables a more informed design of learning activities; one that caters for the needs of a varied capabilities class in order to create a more interactive learning environment".

The Al olwan study (2010) aimed at defining the preferred learning styles by high school students in Ma'an city and their relationship with the gender and academic achievement variables. The study sample consisted of (220) male and female students in the tenth grade in Ma'an city in Jordan. The study results indicated that the most preferred learning style among the tenth grade students was Auditory Learning Style followed by visual Learning Style, and the least preferred one is the Kinesthetic learning style. The results have shown that no statistical significance existed in the preferred learning styles due to gender variable.

The study of Altuna and Yazici (2010) "aimed at determining learning styles of gifted students in Turkey. The sample of the study composed of two groups from primary-second phase students, gifted students group consisted of 386 (Female=164, Male=222) and non-gifted students group consisted of 410 (Female=209, Male=201). The Learning Style Scale developed by Sever (2008) and Data Collection Form developed by the researchers were used as data gathering tools. The result indicates significant differences which were found between the gifted students' learning styles and non-gifted students' learning styles. Significant difference was found between visual learning styles, kinesthetic learning styles of gifted and non-gifted refer gifted, a significant difference has been determined between auditory learning style scores of gifted females and gifted males, this difference stems from higher scores of females than of males. Additionally, significant differences were also found among learning styles of the gifted students taking their grade levels into consideration".

Rayneri; Letty J.; Gerber; Brian L.; Wiley and Larry P. (2006) study investigated the relationship between classroom environment and the learning style preferences of gifted middle school students and the impact on levels of performance. This study focused on student perceptions of the classroom environment, student learning styles, and student achievement levels. The Learning Style Inventory (LSI) was given to eighty gifted students from the sixth, seventh and eighth grades aiming at defining their learning style preferences.

They were also administered the Student Perception Inventory (SPI), in order to determine perceptions of these learning style elements in their classroom environments. The results of this study found that gifted students to be more kinesthetic and more likely to be encouraged using hands-on activities that enable them to reach their potential. Gifted students also have shown the need to a more interactive class environment where the teacher notes and responds to their preferences hence motivating them to achieve better results.

Al Mane' study (2005) aimed at defining the preferred learning styles of intermediate stage students as well as the common teaching styles. The study sample consisted of (579) male and female students in the ninth grade from (26) different schools in Al Riyadh city in Saudi Arabia. The results have shown that the most preferred teaching styles by students are learning through verbal reaction with the teacher, whereas the least preferred style is through conservation and recitations, activity exercises and applications. The study concluded that the teachers have to determine the student's preferred learning styles, and prepare their lessons according to it. Teaching styles applied by the teachers shall be varied in order to ensure the satisfaction of all students' learning styles they needed.

David Chan study (2001), "Learning Styles of Gifted and Non-gifted Secondary Students in Hong Kong Gifted Child Quarterly Winter" focused on 398 gifted and non-gifted Chinese secondary students. Gifted students were found to prefer learning styles related to discussions and independent learning. Although there were no significant gender differences in learning style preferences, the younger age group indicated significantly greater preference for learning styles related to structured activities and games than the older age group".

The study of Pyryt (1998) investigated the preferred learning styles of gifted and ordinary male and female students in preliminary American schools. The study indicated that gifted students tend to be more independent in their learning and depend on self motivators rather than exterior ones; they also prefer to take part in the learning process. The Study results indicated that there is no statistical significance in learning style preference that may be justified by gender, and that gifted students prefer to learn through multiple sensory channels.

Dunn; Dunn and Price (1987) study aimed at comparing the students' learning styles of three levels of achievement: (high, moderate and low). Results indicated that one student of low achievement preferred the Auditory Learning Style against 27% of the moderate achievement students, and 47% of the high achievement students. The results also indicated that the moderate and high achievement students were highly preferred sensory and kinesthetic learning styles.

4. Problem Statement & Questions

It is already agreed that there are individual differences between students that should be observed and recognized during the task of learning. These differences include the differences between the students in their favorite learning styles.

This has raised the need for research of favorite learning styles of students, since each student has a special way of understanding and absorbing the information and gains the skills. Moreover, the differences between students in perceptive processes can be considered as an indicator of the differences and diversity of students' learning styles (Dunn, 1993). In addition to the fact that students learn best when their favorite learning styles are compatible with the teaching methods applied in schools. It was also noted that the different students' position learning styles and the acquisition of knowledge, cause differences between them in the level of educational attainment, as students with learning methods that in line with the offered common teaching methods are learning better, while students with favorite learning methods different from the offered common teaching methods, may find difficulty in learning, and their education achievement level will be affected.

The problem is to define the common learning styles between students participating in special programs for gifted and non- gifted students in the light of their various academic grades and genders by answering the following questions:

1. What is the common learning style of gifted and non- gifted students?
2. Are there statistically significances at the level ($p \leq 0.05$) in the learning styles between gifted and non-gifted students?
3. Are there statistically significances difference at the level ($p \leq 0.05$) in the learning styles between gifted and non- gifted students due to the gender and grade variables and the interaction between them?

5. Objectives of Study

The study aims at investigating the following:

1. The common learning styles among gifted students in gifted schools and non- gifted students in ordinary schools.
2. The common learning styles according to the variables of (type of school, grade and gender)

6. Importance of the Study

From the practical educational point of view, it appears that the learning style consists of a group of performances distinctive for the learner which are considered as a guide of his learning method, and how he intakes the information input by the surrounding environment aiming at adapting to it (Gordon, 2003; Miller, 2003).

The teacher's comprehension of the student's learning style and its positives is important; it supplies the teachers with the correct learning methods of the students, and familiarizes them with the way they receive classroom experiences, and contributes to developing their knowledge of their experience.

The above contributes in setting the experiences and situations for the students, and allows them to interact with them. Each student perceives each experience in his own way. This can be taken into consideration by the teacher for good planning, so each student finds what features and concerns suit him in these class experiences.

In addition to the essential reasons mentioned above, the importance of this study can be shown in the lack of Arabic studies in the area of students' qualities and interests, especially in the local studying community, may justify the important of this study in terms of its subject and its theoretical and practical implications in the areas of education and learning.

This Study intends to contribute to:

- Bringing the attention of boards and establishments interested in teaching students to the importance of designing syllabuses and teaching methods and the learning environment, in order to fit the students' learning styles; the smaller the gap is between the teacher's aim and the student's interpretation, the better the opportunity is to achieve the meant outcome of learning, and by this the psychological and academic compatibility is achieved by students.
- Paving the way for many studies and researches in the area of teaching, and identifying the methods of teaching appropriate for the students' learning styles.
- Increasing the awareness of many new studies and research individualities, which can translate these outcomes into an actual reality that contributes in developing special programs for gifted students, hence exhibiting the applied importance of the current study.

7. Terms and Definitions

- Learning Style: "an individual's learning style is the way that person begins to process, internalize and concentrate on new material" (Dunn& Dunn, 1992, p: 2)
- Gifted student: Ogilvie's definition "Gifted and talented children are those identified by professionally qualified persons, who, by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and services beyond those normally provided by the regular school program in order to realize their contributions to themselves and society". (Doris, 2002, p: 166)
- Non-gifted students- Procedurally: They are students in primary schools in Tafila governorate, who have not been detected as gifted students by specialists, and there were no distinct educational programs for them, especially the curriculum and teaching style.
- Gifted student - Procedurally: students who are studying in gifted schools, were accepted according to their access to the highest average rates in the sixth and seventh grade, In addition to passing a cognitive abilities test determined by the Ministry of Education.
- Gifted school: Public schools based method to enrich the school curriculum rather than the principle of academic achievement. The distinguished students are selected; they are the ones who obtained the rate of 90% in the exams of the primary sixth and seventh grade, and who have passed the test of mental ability. The schools aim at meeting their different needs and develop their talent and creativity in order to achieve democracy, education and equal opportunities (Al-Azeh, 2002).

8. The limits of the Study

The study includes the following limits:

Place limit: Tafila Governorate- Hashemite Kingdom of Jordan .

Time limit: The second semester of the academic year 2012/2013.

Human limit: gifted student of King Abdullah II School for Excellence and other non- gifted students of ordinary schools, at Tafila Education Directorate.

9. Methodology

9.1 Population of the Study

The study population was composed of all students from the seventh grade till the tenth grade in ordinary schools, in the King Abdullah II School for Excellence and in the Pioneer Gifted Center, for the second semester of the year 2012/2013 in the Tafila governance.

9.2 Study Sample

The study sample consisted of (180) male and female students, in Tafila Governorate for the second semester of the academic year 2012/2013. It was distributed into two groups; the group of gifted students (Female=41, Male=49), has been selected purposively from King Abdullah II School for Excellence & pioneer gifted center. The group of non- gifted students consisted of (Female=43, Male=47). The students have been selected by simple random method from ordinary schools. Table 1 shows the distribution study sample according to the (type of school, grade and gender)

Table 1: The Distribution of Study Sample According to the (Type of School, Grade and Gender)

gender	Type of school	Grade				Total
		Seventh	Eighth	Ninth	Tenth	
Males	Gifted	14	14	9	12	49
	Ordinary	13	12	12	10	47
Females	Gifted	10	8	12	11	41
	Ordinary	11	10	12	10	43
Total		48	44	45	43	180

9.3 Study Instrument

The researcher used the questionnaire of learning style in the study, which was developed by Al-Qattan Center for Research and Educational Development that referred to in Jaber and Quran (2004) to identify the students' learning styles. The questionnaire consisted of eighty items divided into four domains as shown in table 2.

The outcome of the filled questionnaire is calculated by counting four points for the (always) answer, three for (often), two for (sometimes), and one for (never). Hence the highest number can be achieved is eighty points, and the lowest is twenty.

Table 2: Four Domains of Distributed Items of Learning Styles

Number	Learning Style	Items
1	Kinesthetic Learning Style	1-20
2	Visual-nonverbal Learning Style	21-40
3	Visual-verbal Learning Style	41-60
4	Auditory Learning Style	61-80

9.4 Reliability

To calculate the reliability of the questionnaire the test- retest method was used, and was calculated between the scores of the first and second application using the Pearson Correlation Coefficient, and the correlation coefficient equaled $r=0.083$.

9.5 Validity

The validity had been established using the expert Judgmental method through highly professors in special education, educational psychology and education assessment, the result for validity of scale items. The agreement percentage was (83%).

9.6 Study Design

This study used the analytical descriptive design

9.7 Statistical Treatment

The study was processed by using Two Way ANOVA of the study variables, Pearson Correlation Coefficient to calculate the reliability, means and standard deviations. The following criteria were used to judge the grades of items:

Level	Grade
25-50	Low
50.01-75	Medium
75.01-100	High

10. Results and Discussion

The results were shown and discussed as follows:

10.1 Question One: What is the common learning style of gifted student in and non- gifted students?

To answer the question the data was analyzed, means and standard deviations calculated as shown in table 3.

Table 3: Means and Standard Deviations of the Common Learning Styles of Gifted and Non- Gifted Students

School type		Mean	Standard Deviation	rank	Degree
Gifted students	Visual/Nonverbal Learning Style	60.28	9.73	1	Moderate
	Kinesthetic Learning Style	59.39	9.00	2	Moderate
	Visual/Verbal Learning Style	59.18	9.90	3	Moderate
	Auditory Learning Style	59.11	9.25	4	Moderate
Non-gifted students	Auditory Learning Style	52.82	17.94	1	Moderate
	Visual/Verbal	52.41	18.00	2	Moderate
	Visual/Non verbal	52.11	19.67	3	Moderate
	Kinesthetic Learning Style	51.62	16.94	4	Moderate

Results in table 3 show that the learning styles of visual nonverbal, visual verbal, Auditory Learning Style and Kinesthetic Learning styles for gifted students is higher than that of non- gifted students in the questionnaire they have taken; gifted students have produced the results (60.28, 59.18, 59.11, 59.39) whereas the non- gifted students have produced the results (52.11, 52.41, 52.82, 51.62).

This result indicates that gifted student prefers to use visual and kinesthetic learning styles more than other student. While the most preferred learning style for non- gifted students was auditory, followed by Visual/Verbal learning style. This finding of the study is in parallel with research findings Altuna and Yazici (2010) that gifted students prefer to use visual and kinesthetic learning styles more than their non-gifted peer, and difference was determined for auditory learning style favor to the non-gifted. In addition, the results degree with Duncan study (2012), visual learners were almost double the number of verbal learners. Al olwan, (2010) indicated that the most preferred learning style among the tenth grade ordinary students was Auditory Learning Style followed by visual Learning Style, and the least preferred one is the Kinesthetic learning style. The study disagreed with research findings of Dunn and Dunn's, (1987) study which indicated that the moderate and high achievement students were highly preferred sensory and kinesthetic learning styles, and disagreed also with the study results of Lam, Lam and Chan (2011), which revealed that the gifted group students were more kinesthetic and better group learners than normal students.

The researcher attributed the result that those schools of gifted students contain classrooms and halls, science laboratories and workplaces. They are also equipped with educational technology such as: computers, the Internet and smart board which facilitates the education process. All of these factors support the learning environment and encourage students to organize and apply knowledge effectively. This helps students to identify their preferred learning style and taking care of it to increase the motivation to their learn. It should be mentioned here that other studies have discussed the effect of using the styles preferred by students on increasing the students' motivation to learn, such as that stated in Al Fuqaha Study (2002); which stated that the students' academic achievement was positively affected when the teachers used their preferred learning style, which highlights the need of repairing the teaching styles, the strategies used, and the educational climate as a whole to better fit the students' preferred styles.

For ordinary students, the preferred learning style is mainly an auditory. This result agrees with Dunn, Dunn and Price (1987) results, that indicated that one student of low achievement preferred the Auditory Learning Style against 27% of the moderate achievement students, and 47% of the high achievement students. The researcher attributed the result that the schools of non- gifted students suffer from lack of materials and the classrooms overcrowded with students; this creates problems in the learning process and the teacher is unable to focus on so many students, in addition to use the traditional style (indoctrination) by teachers as a process of teaching students.

10.2 Question Two: Are There Statistical Significance Differences at the Level ($P \leq 0.05$) in the Learning Styles between Gifted and Non- Gifted Students?

To answer this question, means and standard deviations were calculated, the independent t- Test was used as shown in table 4.

Table 4: Results of Independent T- Test to Significance of Differences in the Learning Styles between Gifted and Non- Gifted Students

Level of significance	T	DF	No	Mean	Standard Deviation	Student type	Learning Style
0.000	3.841	178	90	9.00	59.39	Gifted	Kinesthetic
			90	16.94	51.62	ordinary	
0.001	3.530		90	9.73	60.28	Gifted	Visual/Non verbal
			90	19.67	52.11	ordinary	
0.002	3.124		90	9.90	59.18	Gifted	Visual/ verbal
			90	18.00	52.41	ordinary	
0.004	2.956		90	9.25	59.11	Gifted	Auditory
			90	17.94	52.82	Ordinary	

Results in table 4 show that the T- test results have shown significant differences at level ($p \leq 0.05$) in all learning styles between gifted and non- gifted students' where the values of (t) = (3.841, 3.350, 3.124, 2.956) for the learning styles (kinesthetic, visual non-verbal, visual-verbal, auditory) respectively; and through the averages resulted, it can be noted clearly that the differences in favor of gifted students.

This finding of the study is similar with research findings study of Altuna and Yazici (2010) which indicate that significant differences were found between the gifted students' learning styles and non-gifted students' learning styles. It was expected to show that gifted students are better than non- gifted students in their learning styles, because in the gifted schools they are interested in improving the students' educational performance and follow the best ways to know the characteristics of the students and their abilities. Thus, meet the needs and desires of students based on individual differences in students' learning styles.

10.3 Question Three: Are there statistical significances difference at the level ($p \leq 0.05$) in the learning styles between gifted and non- gifted students due to the gender and grade variables, and the interaction between them?

To answer this question, means and standard deviations were calculated for the learning styles of the gifted and non- gifted students due to the gender and grade variables as shown in table 5.

Table 5: Means and Standard Deviations for the Learning Styles of the Gifted and Non- Gifted Students Due to the Gender and Grade Variables

Auditory		Visual/ verbal		Visual/Non verbal		Kinesthetic		grade	gender
Standard Deviation	mean	Standard Deviation	mean	Standard Deviation	mean	Standard Deviation	mean		
10.18	56.00	10.77	54.15	9.81	58.55	8.08	57.11	seventh	male
10.39	53.73	12.26	55.27	15.21	52.85	14.31	51.31	eighth	
15.33	54.71	15.65	57.48	16.14	56.00	15.56	54.57	ninth	
7.04	64.91	8.31	63.45	7.27	64.54	8.845	61.04	tenth	
11.67	57.14	12.28	57.31	13.11	57.82	12.36	55.88	Total	female
16.55	46.09	16.54	48.57	16.24	46.28	14.49	49.00	seventh	
17.36	56.55	19.02	53.67	23.01	50.22	21.92	50.89	eighth	
21.57	55.46	22.36	56.12	20.31	59.08	15.87	59.37	ninth	
7.70	60.52	5.94	57.52	10.54	60.48	6.13	59.81	tenth	
17.29	54.62	17.29	54.06	18.69	54.33	15.87	55.07	Total	

Results in table 5 show that there are apparent differences in the learning styles between the gifted and non- gifted students due to the gender and grade variables. To see whether these apparent differences were statistically significant; Two Way ANOVA was used as shown in table 6:

Table 6: The Results of (Two Way ANOVA) Analysis, for the Significance of Differences in Learning Styles Between Gifted and Non- Gifted Students Due to the Variables of Gender and Grade

SIG.	Calculated Value (F)	Mean squares	DF	Sum of squares	Source of variation	learning style
0.547	0.364	68.205	1	68.205	Gender	Kinesthetic
0.009	3.992	747.949	3	2243.846	Grade	
0.162	1.732	324.482	3	973.447	Interact	
		187.343	172	32222.943	Error	
			179	35464.994	Total	
0.087	2.959	698.455	1	698.455	Gender	Visual/Non verbal
0.003	4.776	1127.190	3	3381.570	Grade	
0.121	1.962	463.183	3	1389.548	Interact	
		236.035	172	40597.974	Error	
			179	45864.194	Total	
0.102	2.696	579.246	1	579.246	Gender	Visual/ verbal
0.028	3.094	664.870	3	1994.610	Grade	
0.814	0.316	67.837	3	203.512	Interact	
		214.885	172	36960.221	Error	
			179	39633.394	Total	
0.204	1.628	318.377	1	318.377	Gender	Auditory
0.001	5.393	1054.431	3	3163.293	Grade	
0.135	1.876	366.804	3	1100.413	Interact	
		195.516	172	33628.670	Error	
			179	38045.800	Total	

Results in table 6, show that there were no statistically significant differences at the level of ($p \leq 0.05$) to learning styles (kinesthetic, visual/nonverbal, visual/verbal, and auditory) for gifted and non- gifted students due to the gender variable; where the value of (F) = (0.364, 2.959, 2.696, 1.628) respectively. Moreover, it was found no differences attributable to the interaction between gender and grade, where the value of (F) = (1.732, 1.962, 0.316, 1.876), respectively. While showing statistically significant differences at the level ($p \leq 0.05$) due to the grade variable, with the value of (F) = (3.992, 4.776, 3.094, 5.393) for learning styles (kinesthetic, visual non/verbal, visual/verbal, auditory) respectively.

To determine the differences in learning styles between gifted and non- gifted students due to grade variable, Scheffe' Test was used for Post Hoc Posterior Comparisons as shown in Table 7:

TableNo 7: Comparisons Results of Scheffe' Test for Post Hoc Posterior to Determine of the Differences in Learning Styles between Gifted and Non- Gifted Students Due to Grade Variable

SIG.	Error	Mean difference	Level (Y)	Level (X)	learning style
0.868	2.85670	2.4261	Eighth	Seventh	Kinesthetic
0.664	2.84010	-3.5708	Ninth		
0.130	2.87398	-6.8794	Tenth		
0.238	2.90189	-5.9970	Ninth	Eighth	
0.020	2.93506	-9.3055*	Tenth		
0.733	2.91890	-3.3085	Tenth	Ninth	
0.978	3.20653	1.4148	Eighth	Seventh	Visual/Non verbal
0.583	3.18788	-4.4569	Ninth		
0.041	3.22592	-9.3706*	Tenth		
0.358	3.25724	-5.8717	Ninth	Eighth	
0.015	3.29448	-10.7854*	Tenth		
0.524	3.27634	-4.9137	Tenth	Ninth	
0.825	3.05950	-2.9053	Eighth	Seventh	Visual/ verbal
0.434	3.04171	-5.0472	Ninth		
0.044	3.07800	-8.8498*	Tenth		
0.924	3.10789	-2.1419	Ninth	Eighth	
0.314	3.14342	-5.9445	Tenth		
0.687	3.12611	-3.8026	Tenth	Ninth	
0.749	2.91835	-3.2197	Eighth	Seventh	Auditory
0.704	2.90138	-3.4444	Ninth		
0.003	2.93600	-11.1008*	Tenth		
1.000	2.96451	-.2247	Ninth	Eighth	
0.079	2.99840	-7.8811	Tenth		
0.090	2.98189	-7.6563	Tenth	Ninth	

Results in table 7, show that the differences in kinesthetic learning style between eighth and tenth grades students were in favor of tenth grade students, while in the rest of the styles observed that the differences between students in grades seventh and tenth were in favor of the students of tenth grade; meaning that, for the benefit of students of the top grade.

This finding of the study is similar with research findings (Al Olwan, 2010; Pyryt, 1998), which indicate that no statistical significance existed in the preferred learning styles due to gender variable.

The researcher attributed the result that there were no differences to learning styles for males and females students, because they have the same unified educational system, and use the same educational curriculum in their related schools.

10. Recommendations

In the light of the results, the researcher recommends the following:

1. Curriculum designers should consider the variety of students' learning styles.
2. Enhancing teachers' awareness of using a variety of teaching methods suited to the different students' learning styles.

11. Conclusion

It turns out that there are different and diverse individual learning styles of the students, whether gifted or non-gifted students, and must take into account these differences when preparing the curriculum and the development of the teachers' capacity to use teaching styles appropriate for the students' diversity of learning styles to improve academic achievement.

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