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The Effect of Enrichment Activities on Talented Students' Achievement

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Abstract

This study aimed at investigating the effect of enrichment activities on talented students' achievement. The sample consisted of thirty talented students studying at Al-Kourah Pioneer Center for Talented Students, Jordan. An achievement test was developed. The test was applied as a pretest and posttest on the sample. Based on the analysis of data, results will be discussed.

Keywords: *Talented Students; Enrichment Activities; Pioneer Centers*.

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1. Introduction

Talented students need educational services different from the regular traditional programs presented to them in the regular schools. Thus, they need educational services that satisfy their needs, since they possess abilities that make them different from their peers. many gifted students do not receive appropriate services to meet their learning needs in the regular classroom (Reis, 2007). The objective of the educational program of the talented students is to enable them to become autonomous, creative, and productive learners in the society (Diezmann & Watters, 2000).

Educational program for the talented students have to be characterized with several qualities, such as: flexibility, so it can be altered every now and then to suit their needs, talents and inclination. They have to develop their physical, mental, and

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

affective sides. They have also to develop leadership qualities and provide them with educational experiences (Thomas, 2010).

The educational programs of the talented students have to present educational subjects that suit their capabilities and interests; it should also broaden their horizon, provide opportunities for learning, and provide them with enough space to practice thinking about any project they may think. Consequently, educational programs of the talented students must provide the educational environment rich with varied resources, the enrichment activities, and enough time to explore and train on the skills of the creativity and research (Phillipson, Phillipson, & Eyre, 2011; Kanevsky, 2011).

The justification for the existence of the talented students educational programs is that the regular programs are incapable of satisfy their needs; therefore, they need special educational program. It is necessary to find good quality education by designing special enrichment activities in order to develop the personal, the cognitive, and the social sides (Hymer &Michel, 2002; O'Donovan, 2007). Most of the educational institutions available do not satisfy the needs of the talented students, and what the teachers do in the class, changing and adapting to satisfy their needs is not enough; consequently, the enrichment activities play a significant role in satisfying their needs (Rotigel & Fello, 2004).

Jordan has done a great effort taking care of the talented students by founding educational institutions that take care of them; some of these institutions are: Jubilee School, King Abdulla schools for Excellence, Giftedness Resource Rooms, and Pioneer Centers for Talented Students (Jarwan, 2008).

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

The pioneer centers are part of the educational institutions that take care of the talented students; the centers aim at broadening students' basic knowledge, developing their cognitive ability, helping them understand themselves by giving them enrichment activities that provide them with new educational experiences. The enrichment activities include scientific research projects, field visits, contests, exhibitions, and summer programs that include voluntary work, seminars, and camps (Ministry of Education,2011).

The idea of the pioneer center is based on the idea of not separating the talented students from the regular students in the classroom. The centers provide the necessary for the talented students after the end if the school day, and provide them with special programs related to the subjects they excel at.

Enrichment is alteration and addition to the regular curricula of the regular students in order to meet the needs of the talented students in the cognitive, affective, creative, and psychomotor fields(Van Tassel-Baska & Brown, 2007). Enrichment could be activities, experiences, and subject matters that take the talented students beyond the regular curriculum, challenging their capabilities and fulfilling their curiosity, and occupying their time. They also help the learners achieve their creativity in the cognitive processes; therefore, the enrichment activities presented to the learners must include suitable experiences and academic skills that ultimately lead to developing the students' skills (Sebring & Tussey, 1992).

The enrichment activities presented to the talented students in the pioneer centers are supplements to the general curriculum. In these supplements, the necessary skills and knowledge are defined, and they focus on higher thinking skills

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

and include free study projects. The activities represent compatibility between the cognitive, affective, and emotional goals. The programs are flexible (Nogueira, 2006; Jarwan, 2008). Numerous experts emphasize that enrichment activities involves greater depth. This means exploring topics in greater detail and with deeper understanding than is standard in the curriculum (Schneider, 2002).

Enrichment means giving the talented learners the opportunity to study the school subject matters in a deeper than what is done in the regular classes, and it also allows the talented learners to pursue their program side by side with their peers n the regular classes. The talented learners attend the pioneering centers after end of the school day where they are given additional readings, tasks and field research (Al-Zoubi, Bani Abdel Rahman, 2011).

In order for the enrichment activities to achieve their effectiveness, they must take into consideration the needs of the talented and the students' interests regarding content. They must also include techniques and strategies (Clarck & Zimmerman, 2002). The enrichment activities that take into consideration the talented students contribute to boost students' motivation, and polish their talent. In addition, enrichment activities have positive effect on developing self-efficacy and self regulatory strategies (Heinz & Heller, 2002; Pereira, Peters & Gentry, 2010).

Renzulli suggested an enrichment program for the talented students aiming at teaching the talented children on creative and critical thinking processes. This enrichment program consists of there levels: exploring activities that include general exploring activities that aim at providing the appropriate environment for the talented students to deal with the school subjects that interest them; guided activities toward a certain skill, which include the techniques and the strategies that aim at developing

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

thinking processes; and finally problem solving guided activities that include research activities and art and literary activities where the learners practice the role of the real researcher (Jean, 2010; Sally & Renzulli, 2010).

Moreover, Al-Shehri, Al- Zoubi, and Bani Abdel Rahman (2011) indicated the effectiveness of gifted students centers in developing geometric thinking. Furthermore, Al- Zoubi, and Bani Abdel Rahman (2011) investigated the level of the effectiveness of gifted center in Saudi Arabia. The results revealed that the Gifted Center in Najran is effective. Cho and Lee (2006) showed that presenting the enrichment activities to the talented students as early as the 4th grade is more beneficial than presenting them as late as the 7th grade. Al-Bal'awi (2005) found that the effect of the enrichment activities in the English Language on the students' achievement in pioneer centers in Jordan. Al, David, and Judy (2005) Examined the relevance of emotional intelligence within educational programs for the gifted and talented. Results allude to the theoretical and practical implications for strategically integrating mechanisms that foster of development of emotional intelligence among gifted and talented students. However, Olszewski-Kubilius and Lee (2004) concluded that parents perceived their children's participation in a Saturday enrichment program as having positive effects on academic talent development, including gains in knowledge, motivation, interest in their areas of study, and academic competence. The results of Al Khateeb (2003) showed the effectiveness of the enrichment activities used in the English Language course at the pioneer centers. Diezmann & Watters (2000) aimed at providing the talented students with a group of enrichment strategies. The approach is based on a "pull-out" enrichment program in science

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

which included cognitive skills in the science syllabus in a social context. The results have significance for programming for the gifted and for teacher education.

2. Statement of the Problem

Pioneer Centers were founded for the talented students in Jordan in order to present educational services through enrichment activities that satisfy their needs and exploit their capabilities and potentials; therefore, this study aimed at investigating the effect of enrichment activities in the pioneer centers on talented students' achievement. The research questions addressed in this study are:

- Do enrichment activities have any effect on talented students' achievement?
- Do enrichment activities have any effect on students' achievement attributed to gender?

3. Method

3.1 Participants

The population of the study consisted of 120 students attending Alkourah pioneer Center for Talented Students, Jordan. However, the sample included 30 students, (male= 15, female=15).

3.2 Instrument

In order to achieve the objectives of the study an achievement test developed by Al Kourah Pioneer Center for Talented Students was adopted. After being given to a group of specialists in the field of special education, the test consisted of (50) multiple choice questions, divided evenly on the Arabic Language, English Language, Science, Mathematics, and Counseling and thinking. A grade of (1) was

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

given to the correct answer, and a grade of (0) to the wrong answer. To verify the reliability of the test the Internal Consistency Coefficient was computed using Kuder-Richardson Formula 20 formula (KR– 20); it was 0.81.

4. Results

The first question of the study was as follows: "**Do enrichment activities have any effect on talented students' achievement?"**. For this sub problem, means and standard deviations were calculated and a T-test was conducted to compare the means of the pre – achievement and post– achievement test, as shown in table 1:

Table 1:T- test Results of pretest and posttest

test	n	x	Ss	sd	t	p
Pretest	30	37.16	3.343	29	83.15	* 0.00
posttest	30	41.83	2.755			

Table 1 shows that there are statistically significant differences at ($\alpha \leq 0.05$) between the means of the students' achievement on the post-achievement test, indicating that students' performance improved due to the enrichment activities at Al Kourah Pioneer Center, where the means on the post- achievement test was (41.83) and (P=0.00) with statistical significance.

The second question was as follows:" **Do enrichment activities have any effect the talented students' achievement attributed to gender?"**. the means and standard deviations on the post-achievement test were computed, as shown in table 2.

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

Table 2: Means and standard deviations of post -achievement test

Gender	n	m	sd
Male	15	41.86	2.996
Female	15	41.80	2.596

As seen in Table 2, there are statistically significant differences between the males and females means; the means of the males was (41.86), and it is higher than that of the females, which was (41.80). in order to investigate the effect of enrichment activities on the talented students' achievement attributed to gender , One-Way Analysis of Variance (ANOVA) was used to determine the statistical significance attributed to gender, as shown in table 3:

Table 3: ANOVA results of post- achievement test according to gender

Source of variance	SS	df	MS	F	P
Between groups	0.033	1	0.033	0.004	0.949
Within groups	220.133	28	7.862		

ANOVA results in table 3 show that there are no statistically significant differences attributed to gender, since there were no differences between the male and the female students on the post achievement test.

5. Discussion

The study aimed at investigating the effect of the enrichment activities on the talented students' achievement. The results of the study show that there is an obvious effect for the enrichment activities on the talented students' achievement, since the differences were statistically significant between the performance of the talented students attending the Pioneer Center on the post -achievement test, attributed to the enrichment activities. The improvement in the talented students'

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

achievement could be best explained by the fact that the enrichment activities at the Pioneer Centers included experiences and activities that helped provide the talented students with knowledge and skills lead to their improvement. In addition, the enrichment activities were planned and prepared in a progressive way and according to certain criteria in both constructing their content and choosing their educational and assessment activities. Furthermore, seminars and research sessions between the students themselves and between the teachers and the students helped improve the students' achievement and developed several academic sides. Stake & Mars (2001) confirmed the effect of the enrichment activities and programs, especially with the availability of competent teachers supervising these programs.

Consequently, we find that the Pioneer Center contribute to raising the talented students' awareness and knowledge of the basic skills by providing them with enrichment activities that provide ever renewable knowledge, and encourage them to think critically and creatively, and develop their personalities from various aspects; this is what Al Shurman (2003) confirmed in her study. Furthermore , Al-Shehri, AL-Zoubi, and Bani Abdel Rahman (2011) stated that talented students' thinking skills could be improved when the enrichment activities and programs are provided with the appropriate educational environment. The enrichment programs play a significant role developing the students' scientific and academic skills. Additionally, Fernandez, (cited in Al Shurman, 2003) confirmed the effectiveness of the enrichment programs on developing the students' oral language skills and critical thinking skills. Kaminsky (2007) confirmed the effectiveness of the enrichment activities on the talented students' achievement.

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921

References

Al Shurman, M. (2003). The performance of Pioneer Centers in Jordan from the perspective of Administration, teachers, and students. *Unpublished Doctoral Dissertation*. Yarmouk University.

Al, B., David, G. & Judy, S. (2005). Examined the relevance of emotional intelligence within educational programs for the gifted and talented. *Electronic Journal of Research in Educational Psychology, 3, 53-78.*

Al-Bal'awi. S. (2005). The effect of EFL enrichment activities on Pioneer Centers in student's achievement. *Unpublished Master thesis*. Yarmouk University.

Al-Khateeb, I. (2003). Evaluation EFL in Pioneer Centers from the students' and teachers perspectives. *Unpublished Master thesis*. Yarmouk University.

Al-Shehry, M., Al- Zoubi ,S. & Bni Abdel Rahman, M. (2011), The effectiveness of gifted students centers on developing geometric thinking. *Education Research*,2, 1676-1684.

Al-Zoubi, S. & Bani Abdel Rahman, M (2011). The effectiveness of gifted center as Perceived by gifted students. *Arab Journal for Development of Talent*, 2, 61-89.

Cho, S. & Lee, Mi. (2006). Effects of the enrichment programs for economically disadvantaged gifted on their aspiration and satisfaction with the program. *Korean Journal of Educational Policy*, 3, 81-97.

Clark, G. & Zimmerman, E. (2002). Tending the special spark: accelerated and enriched curricula for highly talented art students. *Roeper Review,* 24, 3.

Diezmann, C. & Watters, J. (2000). An enrichment philosophy and strategy for empowering young gifted children become autonomous learners. *Gifted and Talented International*, 15, 6-18.

Heinz, N. & Heller, K. (2002). Evaluation of a summer-school program for highly gifted secondary-school students. *European Journal of Psychological Assessment*, 18, 214-228.

Hymer, B. & Michel, D. (2002). Gifted and talented learners – creating a policy for inclusion. London: David Fulton Publishers.

Jarwan, F. (2008).Talent, Giftedness, and creativity. Amman: Dar Al Fiker Publisher.

Jean, G. (2010). Three Rings, Three Enrichment Activities, Three Decades Earlier. *Gifted Education International,* 26, 157-168.

Kaminsky, H. (2007). The effects of an enrichment program on the academic self-perceptions of male and female culturally diverse minority gifted learning disabled students. Dissertation Abstracts International. Vol./is. 68/3-B(1961), 0419-4217.

Modern Journal Of Education , Vol. 1 , No. 2/3 , October/November, 2011 ISSN : 2251- 6921 © *Word Academia Org. Publication, UK.*

Kanevsky, L. (2011). Deferential differentiation: What types of differentiation do students want?. *Gifted Child Quarterly*, 55, 279-299.

Ministry of Education. (2011). Educational programs for gifted and talented students in Jordan. Amman, Jordan.

Nogueira, S. (2006). A Portuguese enrichment program of creativity pilot study with gifted students and students with learning difficulties. *Creativity Research Journal*, 18, 45-54.

O'Donovan, E. (2007). Is your gifted and talented program giving you headaches? *District Administration*, 43, 70.

Olszewski-Kubilius, P. & Lee, S. (2004). Parent perceptions of the effects of the Saturday enrichment program on gifted students' talent development. *Roeper Review*, 26, 156-165.

Pereira, S., Peters, S., & Gentry, M. (2010). My class activities instrument as used in Saturday enrichment program evaluation. *Journal of Advanced Academics,* 21, 568–593.

Phillipson, S., Phillipson, S. & Eyre, D. (2011). Being gifted in Hong Kong: An examination of the region's policy for gifted education. *Gifted Child Quarterly*, 55, 235-249.

Reis, S. (2007). No child left bored. *School Administrator*, 64, 22-26.
Rotigel, J. & Fello, S. (2004). Mathematically Gifted Students: How Can We Meet Their Needs? *Gifted Child Today*, 27, 46-65.

Reis, S. & Renzulli, J. (2010). Opportunity gaps lead to achievement gaps: encouragement for talent development and schoolwide enrichment in urban schools. *Journal of Education,* 190, 43-49.

Schneider, A. (2002). Determining the Best Possible Programming Options for Gifted and Talented Students in Small Rural School Districts. Master
Science thesis. University of Wisconsin-Stout.

Sebring, D. & Tussey, D. (1992). Local administration of programs for gifted and talented. (ERIC Document Reproduction Service. ED344412).

Stake, J. & Mares, K. (2001). Science enrichment programs for gifted high school girls and boys. *Journal of research in Science Teaching*, 38, 1065-1088.

Thomas, H. (2010). Lessons learned from my students: The impact of SEM teaching and learning on affective development. *Gifted Education International,* 26, 271-284.

Van Tassel-Baska, J. & Brown, E. F. (2007). Toward best practice: An analysis of the efficacy of curriculum models in gifted education. *Gifted Child Quarterly, 51,* 342-358.