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The cognitive preschool on training academic readiness

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ABSTRACT

The present study examines the cognitive effects of preschool on school readiness "was discussed and the main research question was posed as follows: Cognitive training in preparation for the pre-school education is effective or not? The quasi experimental design with two groups of 30 students from preschool boy martyr by the branch in the city were randomly selected and were divided into experimental and control groups after the pre-test was applied for three months in the cognitive training and after the third test, with an emphasis on academic preparation was applied to the dependent variable. Through the model analysis of covariance was determined that cognitive training can increase school readiness.

Key words: school readiness, cognitive, learning, school, reading comprehension, preschool

INTRODUCTION

There are two main elements of school readiness in preschool and elementary school. The first element is introduced as autonomy and academic skills input known as the second element. Input academic skills math skills and sometimes the focus of the cognitive skills associated with self-management features, the ability to focus attention and listening is concerned. Prep school can use to prepare a detailed planning of educational training provided [1]. Association studies to identify the effects on the academic readiness skills, academic achievement has determined that the student is ready and without any doubt, such as identification numbers, skills, knowledge and learning concepts Pre-school phonology needs. Through academic preparation provided fertile ground for academic achievement and the development of school readiness, academic achievement increases. One of the most important factors in academic achievement in areas of academic readiness arises is the attention focused. Academic preparation in first grade is reading comprehension, which can increase under the influence of visual perception - is listening. So if you use the principles and techniques of management education at preschool so visual perception - aural developed for optimal academic readiness skills based education is to create the perception of auditory and visual perception of the school readiness of productive factors. Auditory perception in pre-school students who have made good sense to be careful to distinguish the different sounds and maintain the attention auditory stimuli show. The students can see the skills of a text to see details of the image in the context of general and this visual distinction based on visual stimuli show ; It is recommended to visit the preschool to see and hear to listen convert [3]. Today, school readiness as a fundamental construct in the first base is the school administrators are looking for ways to identify and promote it. School readiness as an educational structure can provide basic skills education and academic

progress provides the underlying rocks [8]. Without any doubt the academic preparation of educational factors affected the achievement of pre-school is a school readiness but favorable effects on the development of pre-school education to establish school readiness. Diverse educational programs and curricula are not based on principles that has led to training in preparation for preschool education not effective. Solution is to increase the academic preparation for first grade students in pre-school cognitive approach [1]. Pre-school education should be able to increase school readiness. The century a dramatic change in the education cognitive education can be expected to graduate from preschool began and continues. Higher education in proper techniques and patterns of preschool children learn to mentally organize and is the ability to listen to the first grade students to clean up and organize subjective visual - auditory and sensorimotor coordination - motor and cognitive gain [6]. Given that cognitive education begins in preschool and school management through the use of cognitive coherence in the diagnosis of pre-school education in preparation for first grade can be expected to increase. Empirical data collected in order to identify the effect of preschool cognitive training on academic preparation will be discussed.

Children in first grade, so as to realize the world must look through the alphabet and knowledge of cognitive phonology, the meaning of words and sentences in developing grammatical conceptualizes achieved. Phonology awareness, learn the alphabet, and most importantly, the process of reading and writing is possible only when the students in the first grade, pre-school and elementary skills learned in preschool. Hence, given the cognitive and preschool curriculum is based on the reading process [3]. Preschool Curriculum in order to increase understanding of the importance of reading, it is essential to start projects in education United States of America be mentioned. A team of researchers found that education for the first time a group of children with intellectual abilities desired due to minor imperfections, have the ability to learn to learn. They were interviewed by Samuel Kirk in 1966, raised serious learning disabilities. Kirk believed to be fundamental to the design, pre-school learning disabilities identification and intervention measures can be put into rehabilitation [1]. Academic preparation as a structure is influenced by a range of factors. Experts believe that the curriculum through school-based assessment model for school readiness in students could increase and always fit the particular objectives and content standards and curriculum needs of students at the school readiness of preschool can make first base [3]. In contrast, the approach is based on the academic preparation of school-based assessment assumes the role of cognitive approaches to specific accounts. The advantage of this approach is the ability of the human mind as it is considered a processor and It features a significant improvement in working memory and cognitive content of meaningful verbal learning models to demonstrate significant cognitive [6]. Citing Pezhooesh far (2010), as can be at preschool cognitive training can improve school readiness and reduce the incidence of learning disabilities thus, one of the most important ways to cope with academic failure and learning disabilities in preschool is using cognitive approaches. Further research on Mohammad Bagher (2012) that pre-school chess as a cognitive technique used has been determined that cognitive training can prepare not only academic but also to increase reading comprehension. Can easily see the effects of preschool education in various fields of psychology, child assessment contract and It makes up about quick cognitive factors on academic preparation at first base is not restored. Academic preparation as instruments is that on the one hand with questions or developmental changes in working life and the other is associated with cognitive and emotional development however, it is still not an accurate way to determine the factors that affect school readiness. Minor discrepancies between the literature on the effects of cognitive training can be summarized on academic preparation at the pre-school level to the first question as:

- Does the school readiness of preschool cognitive training is effective or not?
- Due to the particular question or sub-question four projects are discussed as follows:
- Whether the coordination of cognitive preschool sensory - motor is effective or not?
 - Do preschool cognitive training on cognitive coordination - effective listening or not?
 - Whether the coordination of preschool cognitive perception - visual effects or not?
 - Whether cognitive training on working memory is effective or not?

Given the importance of school and learning the fundamental role that reading should be raised by increasing the school readiness can be expected that reading comprehension is hurt and learning problems will occur. Therefore it is necessary to consider the factors affecting school readiness because of academic readiness of school learning can be considered as the foundation stone. There are many ways in order to increase the academic preparation and achievement, and should be prepared for the development of education in the fields of research such a variety of methods to compare the in the benchmark examine effectiveness of different approaches to pre-school through the academic preparation revealed. Recognizing the severity of cognitive training on academic preparedness information

can be applied to the use of cognitive methods for understanding the pre-school level reading obtained and Educational Administration in the Department of Education towards the first base coaching and planning.

MATERIALS AND METHODS

With emphasis on the study of cognitive training as an independent variable was the enabled and it can be manipulated as an independent variable makes to speak, assumptions semi-experimental research design research projects located in areas and causality can be confirmed with an emphasis on the cognitive and academic variables as ready to talk about that. Hence, the study of cognitive training as the independent variable on the dependent variable was the academic preparation and implementation of research based on quasi-experimental research design with pretest and posttest of the control group. All student of Islamshahr preschool education as one of the units of study are considered as the city of Tehran. In this study, approximately 3,000 students from preschool branch is a city. So population sample space is limited and can be counted. Thus, a city preschool centers branch as a single sample was selected using a lottery and after the death of lots of examples in order to draw the sample also were selected as experimental and control groups. Hence, with the emphasis on school Preschool by sampling unit, two groups of 30 were selected. In this study, two standardized psychological instruments to measure psychological solemn responsibility to take charge as the new version of IQ tests Tehran - Stanford - Binet test preparation and academic was the initial step That the psychometric properties of the instruments is as follows:

New version of test intelligence, Tehran - Stanford – Binet:

Tools such as the most complete, comprehensive, accurate and reliable measure of individual intelligence is known to have been performed by a professional examiner citation 8 IQ with IQ profile shows. The five factor test of fluid reasoning, knowledge, quantitative reasoning, visual processing - spatial working memory measure and can be driven by two factors combined reading and working memory can provide knowledge. Cronbach's alpha reliability coefficient for the two methods to assess the internal homogeneity test - the test was calculated to test the stability of the resulting figure, more than 0.80, respectively, also, the validity, content, external appearance, and the criterion [3].

School readiness test first:

The test Iran Damirchi et al, 2010 and Kamkari and Ketabi, 2011 at the standard preschool and psychometric properties of the optimal screening is in order. The device has a 5 degree range and can be prepared with three main and two additional factors to measure. This means less than 20 minutes by trained experimenters working in the Special Education Department has implemented measures and In addition to a number of cognitive domains, an ability to score in language and motor skills presented in a score. Also, two additional score adaptations skills and emotional skills that will take. Through the test score as a preparatory school, which obtained a mean of 100 and standard deviation of 15. This test was also performed solo and with validity beyond 70/0 and the criterion validity. With emphasis on the validity and reliability of the instrument parameters, as can be mentioned as one of the most comprehensive assessment tools that measure school readiness and Can be driven with an emphasis on reading, school readiness in the areas of cognitive measures.

In the present investigation, it is suggested that the selection of sampling units, all preschool students who were recognized in October as preschool children were reviewed and 60 patients were selected from among them by lot the order. After that, the test and control groups were divided into two lots, and through the means of the two tests (Tehran - Stanford Binet and school readiness first step) in the pre-test was to measure school readiness. It lasted a week. Next, a 30-session cognitive training for groups of five sessions per week during the summer and all the tutorials are based on the cognitive model of pre-school education (kamkari and Assadi, 2011), respectively. Finally, with emphasis on the completion of cognitive training, post-training tests were conducted and data were collected from both groups again. This can be compared to the criteria for school readiness scores in both experimental and control groups based on experimental data obtained at pretest and posttest. Approximate scheduling research is as follows:

Using advanced parametric statistical models to test hypotheses of the study and by the way, the assumptions of general linear models, were considered. In order to identify differences between the pretest and posttest scores on school readiness and eliminate the influence of pre-model analysis of covariance was used this could be a way to fit a statistical model to obtain accurate statistical control.

Table 1. The time of the test

Run the test	Cognitive functions	Pretest	Random assignment	Sampling	Selection of sampling units
7days	60 days	7 days	2 days	3 days	3 days

RESULTS

Table 2. Analysis of covariance associated with school readiness

Source of variation	Total square	Df	Mean square	F	sig	IT A coefficient
Before the test	6.46	1	6.46	30.01	0.09	-
Group operating	16.02	1	16.02	7.48	0.01	0.22
Error	57.80	27	2.141	-	-	-

According to the table of F values obtained in the group of $\alpha = 0.10$ is significant. Therefore, school readiness scores in the experimental group with the control group, and this difference is statistically representative of different cognitive effectiveness of the school readiness. Thus, cognitive training enhanced academic preparation and relying heavily on the work, increase school readiness through cognitive is 0.22.

Table 3. Analysis of covariance with visual perception

Source of variation	IT A coefficient	sig	F	Mean square	Df	Total square
Before the test	0.10	0.08	3.26	0.96	1	0.96
Group operating	0.01	0.82	0.04	0.01	1	0.01
Error	-	-	-	0.29	27	7.96

The table can be given as F values obtained in the group at $\alpha = 0.50$ is not significantly different from the mean visual perception in the test and control groups is not a significant. Thus, the cognitive training on visual perception has not been effective.

Table 4. Analysis of covariance with Auditory Perception

Source of variation	IT A coefficient	sig	F	Mean square	Df	Total square
Before the test	-	-	4.60	0.77	1	0.77
Group operating	0.12	0.06	4.42	0.74	1	0.74
Error	-	-	-	0.16	27	4.55

According to the table of F can be obtained as the aural perception scores of the groups was not significant difference test and control groups not significant. Thus, auditory perception, cognitive training has not been effective.

Table 5. Analysis of covariance with the coordination of sensory – motor

Source of variation	IT A coefficient	sig	F	Mean square	Df	Total square
Before the test	0.34	0.01	14.30	3.97	1	973
Group operating	0.01	0.57	0.33	0.09	1	0.09
Error	-	-	-	0.27	27	7.49

The table can be given as F values obtained in the group at $\alpha = 0.50$ is not significant. Thus the mean coordinate sensory - motor test and control groups showed no significant differences. Hence the cognitive sense of harmony - is not effective locomotion.

Table 6. Analysis of covariance associated with working memory

Source of variation	IT A coefficient	sig	F	Mean square	Df	Total square
Before the test		0.45	0.57	0.24	1	3
Group operating	0.42	0.01	19.58	8.33	1	8.33
Error				0.42	27	11.49

The table can be given as F values obtained in the group of $\alpha = 0.10$ is significant. Thus, working memory scores in the experimental group with the control group, and this difference is statistically representative of different effects of cognitive training on working memory, thus, cognitive training enhanced academic preparation and increase working memory based on the severity of the cognitive 0.42.

DISCUSSION AND CONCLUSION

The hypothesis tested was found that cognitive training can increase school readiness. Hence, the findings of this study indicate that in pre-school, special education should be used toward school readiness. Research on comparison of the results associated with the original hypotheses in parallel, there is a good agreement between the results of the background investigation and study there. According to the study, Asdi (2011) it was found that decreased cognitive and learning disabilities creates a reference to Ketabi (2012) on the effectiveness of cognitive training on reading comprehension, can be easily made in the present study and background investigation and evidence obtained is valid for parallel branch through cognitive training in pre-school, school readiness, first increases and then, understanding, reading and study skills will be more.

Secondary hypotheses were also tested on the four elements of the educational preparation of working memory increases and significant changes in visual perception, Perception coordination sensory there was a move. According to findings consistent with theory of Badly (1991) and Sevason (2006). Thus through cognitive training on working memory can be increased Preschool period. Sub test hypotheses related findings indicated that easily through cognitive training, working memory increases. Research on Mohammad Bagher (2012), Alizadeh (2012), and Mehrjoo (2012), found that aerobic training through formal training and the mental chess comfortable working memory increases. Hence, in the present study based on cognitive learning, working memory also increases.

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