

Research Article

THE EFFECT OF STORY-TELLING ON THE VERBAL INTELLIGENCE OF PRE-SCHOOL CHILDREN

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ABSTRACT

The present research was done in order to measure the impact of reading story on the verbal intelligence of the infants. The population in this research included pre-school children in Tehran. A sample of 20 six-year-old pre-school children in one of the kindergartens of district 6 in Tehran was selected. In this research, stories were told to the children during 15 sessions for a period of one month. The research plan in this study was a quasi-experimental design (a single group with pre-test and post-test without control group) and the tools used in this study were two intelligence test and pre-school Kessler scale. For data analysis, the paired sample t-test was used. The results showed that there is a significant difference between pre-test and post-test. Therefore, we concluded that reading story has an effect on the verbal intelligence of the children.

Key Words: *Story, Reading Story, Telling Story, Intelligence, Verbal Intelligence*

INTRODUCTION

Story-telling traces back to the time when human being came into existence. Story reflects the hopes, fears, joys, sorrows, miseries, luckiness, temperament, attitude and beliefs. The beautiful stories which are narrated to children by grandmothers is the first step to make them interested in story and story-telling and paves the way for them to enter the world of imagination and creativity. By creativity, we do not mean imitation; what we mean by creativity is not to have fear of facing the problems and in a sense it means experiencing and finding new solutions.

Story is a means which easily can open the horizon of imagination and thinking for children and can make their thinking power active and causes it to grow (Sahebi, 1998). Stories can be effective with respect to moral, emotional, and social behavior. They can teach us many social norms and regulation and life instructions. In stories, we usually express how to confront with difficulties, how to solve them. They usually show different behavioral paradigms related to different social and age groups and classes (Ashtiani, 1992).

Story and story-telling has got an important role for children. And from long time ago, story and story-telling was important for educational scholars in forming children's moral and spiritual personality (Rahgozar, 1998).

Popular culture which is the origin of all arts is a genesis starting point for literature specially children's literature. Lullabies, songs and legends of the children, adventurous, romantic and mythical stories which were born out of the minds of people in different eras are considered the basis of children's and teenager's literature (Shoari Nejad, 1999).

Among the ancient philosophers, Plato emphasized the importance of story for children and teenagers in his famous book called 'Jomhoriyat' (Rahmandost, 1998).

On the verge of 21st century, children's literature played the role of a link between the children and the world around them and in fact could link them with the future's unknown world. Children's literature at the present time, far from moral advice or social and political mottoes, tries to help the children to gradually play a critical and productive role in the world which is changing around them (Hejazi, 1995).

On the other hand, story-telling has got the first place in learning, developing imagination, curiosity and creativity of the children of lower ages. Froebel also formulated the important and productive factor of

Research Article

children's personality in 3 sections: 1-story-telling 2-game 3- painting, working with sculpting dough (Mobahi, 1997).

When a child listens to a story, he may have a close feeling with a personality, a topic or an event in the story. And if it is so, these things can have an effect on him. His interest in the thoughts, feelings and behaviors of the characters in the story allows him to reflect these things in his emotional experiences to some extent (Esmael and Mohammad, 2002). Children play in the world of stories, wake up with stories, sleep with stories and live with stories. The noisiest children listen to stories silently. They learn from the stories, use them as a paradigm, and follow stories in their sleep. In every story, a topic is paid attention to. A topic which is full of unknown things and can provoke their sense of curiosity and improve their power of imagination. The logical coherence of the scenes in the story is an important factor in entertaining the children and organizing their thoughts and imagination logically. Children using their power of imagination can easily replace themselves with one of the characters in the story and by following the failures and victories of that character; he can soften his feelings and emotions or get a feeling of joy and happiness. In fact, stories as imaginative and cultural structure include the following outstanding points from the individual and social point of view (Amern, 1998). That is why education and training experts stated two distinct goals for telling stories for the children:

1. The informative function of story-telling in representing part of the knowledge about the world and culture.
2. The transitional function in education and teaching lessons which teach the methods of thinking and action to the individuals (Trins Berg, 2001). One of the wonders of the stories is that they are open and current and they change. When our stories change, we change, too (quoted from Sheibani and Shahnaz, 1385).

Therefore, stories play an important role in the growth and training of the children. Infancy is an important period among the different periods of life.

Statement of the Problem

Our today's children are tomorrow's successful experts of the society. According to many psychologists, infancy period has got a very important role in forming the personality of the person in their adulthood. For this very same reason, the way of behaving with the children and their education and training are of paramount importance.

If we bring up the children properly, this means that we make a good future for the society. What are important in education are children's intelligence capacities. As we know, children are not equal in terms of their IQ capabilities.

Significance of the Study

The verbal capabilities of the preschool children enable him to better understand the materials in school and the period after that. For example, if he has got a good knowledge of vocabularies and good general information, when entering school, he can understand the materials better and learns them quickly. On the other hand, one of the things in which children are interested is reading stories.

In general, children will enjoy if we read stories for them, especially if the book is appropriate to their age and has got beautiful pictures and paintings.

Stories entertain children. Stories teach children lots of things. For example, general information, religious, scientific, geographical information, etc.

Children like stories at their sleep time more than any other time. Because stories will entertain them until they fall into sleep.

The Purpose of the Study

Since reading stories plays an important role in the education and training of the children therefore in this study we want to see how much stories can affect the verbal intelligence of the children. That is, how much the information that the child get from the stories can affect the verbal intelligence of the children e.g. information and understanding of the words.

Research Article

Another question is whether any story can improve the verbal intelligence of the children or only certain stories can do that. Can the way of telling story improve verbal intelligence? For example, if we explain new vocabularies and things in the story, can this improve the verbal intelligence, as compared to the time when there is no explanation? When you read stories to the children, do they like to pay more attention to the pictures or they like to learn something from it? What kind of stories and which stories are interesting for the children and can improve their verbal intelligence? Can any story which is interesting for the children improve their verbal intelligence?

Research Hypothesis

Story-telling can improve the verbal intelligence of the children. Here, reading story is an independent variable and verbal intelligence is a dependent one.

1. Story-telling

Before we start to talk about story and story-telling, it is better to get some familiarity about literature because story is one of the subsets of literature. Literature is a collection of written works which represents emotional repercussions such as sorrow, joy, and the like and which is expressed artistically in the framework of poetry, story, plays, biography, essays etc. Children's literature is in fact an artistic endeavor in the verbal framework in order to guide the child toward growth with a language and method appropriate for him to understand. In other words, literature includes writings and poems which have artistic and literary value and emerge for the sake of children and teenagers. Children's literature includes fiction, poetry, play, myths and story.

Story-telling includes telling stories, myths, tales and fictions in prose or poetry that are run live before the eyes of audience. In other words, telling story traces back to the time when words and language were created. In fact, story-telling has begun since human being started to talk.

The late Jamal Zadeh, in his book called **story-telling** stated that there will be no fire without smoke. There will be no stories and legends without history and historical basis, either. We can see the traces of story and story-telling on the walls of the mountain caves and ancient inscriptions.

1.1. Process and Goals of Storytelling

Three factors constitute the process of story-telling: **story teller and audience**. Each of these factors in turn and with their special qualities is crucially important for the process of story -telling. And if one of them does not exist, story-telling will not exist. Of course, time and place also play important roles in storytelling. The goals of story-telling are as follow:

Educational goals

Disciplinary goals

Training goals

Entertainment goals

Subsidiary goals

1.2. Story Reading

Story reading is one of the kinds of story-telling. Story reading is the easiest method for representing the story to the audience by story teller. Here the story teller reads the text from a piece of paper or book for his audience .this method is good for the children who have not yet started their school. But this method is not appropriate for the children and teenagers who know how to write and read.

The main drawback of story reading is that they look at the story reader as a *broker* who himself does not have anything to tell and he is only a transferor of the contents of the book. Story reading is a simple job but at the same time, it does not have the benefits of story-telling.

The first written definition of an action similar to story-telling was apparently given in Egyptian Papyrus called vestkar papyrus (2000 ق.م- 1200 ق.م). It states the dialogue between Khufu and his sons. Also in Egyptian, Chinese, Sumerian and Sanskrit texts, there are some examples of ancient tales and stories and of course it is not clear regarding who told these stories for whom, how and why.

Aristotle in his famous book "Politics" writes: those who are technically called educational instructors should take care of the fact that what kinds of stories the children hear whether real or fictitious.

Research Article

Barry Mc Williams in an article related to story-telling and media says: "The story is an art of vocalization, physical movement and disguise to reveal story elements and narrative for the audience. The unique aspect of story-telling is the effect on the audience to develop specific and visual imageries and to assign the audience to complete and reproduce the story.

Some scholars, such as "Bruner", "Class", "Vetiz" and "Jackson" have regarded story-telling as a natural way for making our world. In their view, we look at the world in the form of a story as children do, and we look at our life in the form of a story as adults do. We change our behavior and other's behavior in a context. This context includes motivation, emotions and objective outcomes. In this view, presentation of moral lesson in the framework of story corresponds to the natural style of children for organizing their learning and life.

From this view point, the importance of story in the moral growth of the children has been discussed among many experts. Although all the stories do not follow the same goals or values (Trizenberg and Mc Gross, 2000)

1.3. The Previous Research in this Area

In a study, the experts measured the impact of story-telling on the amount of aggressiveness of the boys and girls in the first and second grade in elementary school in 2005-2006. The results indicated that story-telling decreases children's aggressiveness and at the same time, there is a significant difference between boys and girls with regard to the impact of story-telling on the aggressiveness (Sabbaghian, 2005).

Also in another study, the experts measured the impact of story-telling on the development of social skills of the six-year-old children in Kashan On the month of Dei. The results of this study showed that story-telling has impact on the development of social skills of the six-year-old children (Jafari).

Another study was carried out in the academic year 2009-2010. The results showed that story-telling had positive impact on the learning of citizenship concepts in six-year-old preschool boys (GhalehShiri). Also, the results indicated that story therapy can treat the depression of the children (Sheibani, 2006). Also story therapy has positive impact on the reduction of anxiety in children suffering from anxiety disorders.

MATERIALS AND METHODS

1. Methodology

1.1. Participants

The research design used in this study was a quasi- experimental (one group with pre-test and post-test design). The sample includes 20 six-year-old preschool children in Gahvareh Shadi Kindergarten in district 6 in Tehran.

1.2. Instrumentation

The tools used in the study are questionnaire and preschool Wechsler test. In this study, only two items of its verbal test were used. The reason for using these two items was that in general, stories improve children's level of vocabularies and general information.

The method was that first Wechsler and Verbal tests were administered to the six-year-old children. Then during one month in 15 thirty-minute sessions, stories were told to the children appropriate to their age. Here, they tried to read for children a story which is understandable and interesting for them and which has beautiful pictures and paintings because the experiences show that children pay more attention to pictures in books and they are interesting for them.

After 15 sessions, again two of the items of the Wechsler test were administered to them as a post-test. Now we want to see how many the score of the children in the pre-test and post-test differ from each other and in fact how much story reading and listening to stories can improve the verbal intelligence of the children.

1.2.1. Pre-school Wechsler Test

Wechsler intelligence scale for pre-school period (wipsi) is the third scale that David Wechsler provided for the measurement of intelligence. The first intelligence scale of Wechsler was published in 1939 for the

Research Article

purpose of measuring adult's intelligence. This scale was later revised and in 1955, it was used as Wechsler's intelligence scale for adults (vis). The second scale called Wechsler's intelligence scale for children (visk) was published in 1964. Wechsler's intelligence scale for pre-school period was published in 1964 for the purpose of measuring the intelligence of the children aging from 4 to 6.5. All the three mentioned scales are implemented individually and are considered on of the most important intelligence scales used in the world.

Wechsler defines intelligence as "the capability of the person in understanding and overcoming his surrounding environment." He created his three scales for the purpose of this definition. Each of wechsler's scales includes a series of tests for measuring different abilities and their combination provides the capacity and ability of a general intelligence. In addition, all three scales are made up of two verbal and non-verbal (practical) parts. The basis of this classification is the practical benefit and the diagnosis value and by no means, it is indicative of accepting the existence of different kinds of intelligence. The reason for the division of these scales into different tests was not the belief in the existence of different intelligence. It was because of their practical benefit. The purpose is that the experimenters would like to discover the weaknesses and strengths of the testees in different fields and also measure the impacts of these certain sufficient or insufficient abilities on the mental development of the child.

In Wechsler's view, intelligence is a continuous feature. This feature is the same in all periods of life. It does not mean that during infancy, intelligence is one thing and in childhood, adolescence or adulthood, it is another thing. What causes a low correlation between the intelligence of the newly-born babies and intelligence of the next stages is that in infancy, that is, the age of less than four year old, the features which are regarded as intelligence have not yet emerged or have not reached a measurable level of growth and development. For example, what is necessary for the measurement of child's vocabulary knowledge is speaking. Therefore such a measurement is not possible before the start of this stage. The same is true for child's ability to reconstruct geometrical shapes which is not measurable before the child is able to make a motor balance and coordination in his physical structure. Therefore, the non-correlation between the intelligence of the newly-born babies and infants, adolescents and adults is not due to incapability of the intelligence tests. But it is due to the lack of behavioral capabilities and due to the problem in making communication between the experimenter and the testee.

1.3. Reliability and Validity

The new wechsler's scale for children generally enjoys high validity. Moderate internal consistency reported by Wechsler (1991) in all the 11 age groups reached 96% for the total scale IQ, verbal scale 95% and 91 % for the practical scales .internal consistency for some sub tests had more changes. The least consistency coefficient about the adding of spares was reported to be 69% and the most coefficients about vocabulary were reported to be 87%. The average reliability coefficients for verbal subtests were reported to be between 77% and 87%(with the median 83%), while for the practical subtests, it was a little lower-between 69% to 89%(with the median 78%). Reliability coefficients varied somewhat depending on the age of the subjects and the coefficients observed about children was lower than the older infants. The retest reliability for the average 23 days for all age groups was reported to be 95% and 94% and 87% respectively for verbal and practical scales (Wechsler, 1991). The average score improvement through retest in the average 23 days was reported to be 7 to 8 for the total scale, 2 to 3 for the verbal scale, and 11 to 13 for the practical scale. This may have for the most part resulted from practice effect. It apparently had more impact in practice scale. The practical implication is that the clinical experts should pay attention to score improvement in short time intervals in their interpretations and this should not be interpreted as a real improvement of the testee's abilities. The standard error of measurement (per IQ scores) has been 3/20 for the total score, 3/53 for the verbal score and 4/54 for the practical score. And the change range of SEM (based on the scores of the subscales) for verbal subtests were reported to be 1/08to1.45. Regarding the high level of overlap, micro tests correlations, IQ-related correlations btw WISC-R and WISC-III, many wide-spread researches have been conducted based on WISC-R which can be generated to WISC-III (Dickson and Anderson, 1995). The validity of WISC-R was first calculated via

Research Article

a comprehensive calculation using appropriate criteria like ability-related tests, subject scores, and achievement tests. The median of correlations reported by Setler (1992) that includes correlation with the 4th revision of Stanford Bineh's test (0.78), the K-ABC (0.070), the intelligence group tests (0.66), the WRAT (0.52-0.59), the writing, reading and Arithmetic (0.71), the materials overlap with WPPSI-R (Setler and Watkinson, 1993), and with the subject scores (0.39), the pedestal involving factor, the conceptualization and deduction of abilities as involving factor in comprehension and verbal understanding that virtually overlaps the verbal scale, and the perceptual-organizational factor that's generally in accordance with the pragmatic factor, is emphasized (Allen and Serendiek, 1995; Blaha and Walbrown, 1996; Kuffman, 1975,1994). The third factor which is less emphasized and which is titled differently as distractibility release, memory, or sequencing (Allen and Serendiek, 1995; Benatine, 1974; Burgess *et al.*, 1992; Kuffman, 1975, 1994) is appeared as a rather pure factor for speeded comprehension (Bleik and Walbrown, 1996). Therefore, it has been revealed that WISC-III can predict the related variables in participant's life and is based on a precise conceptual framework.

RESULTS AND DISCUSSION

Whenever a bulk of qualitative data is gathered for interpretation, first they must be organized and summarized in a comprehensible and transferable way. Mostly, the most beneficial and the first step in organizing the data is to rank them based on a logical criterion. Thus, this part includes information on frequency, mean, and the like. According to table 1, the descriptive statistics for kid's verbal intelligence in pre-test is shown. As it can be observed in this table, mean and standard deviation of the kid's scores in verbal intelligence respectively equals 110.75, and 15,57283. The high and low scores are respectively 144, and 86.

Table 1: Descriptive Statistics for Kid's verbal Intelligence in Pre-Test

Variable	No.	Min.	Max.	Mean	SD.
Verbal intelligence	20	86	144	110.75	15.57283

In table 2, descriptive statistics for kid's verbal intelligence in post-test is demonstrated. As it is observable, the mean and standard deviation of kid's scores in verbal intelligence are 127.95, and 20.91707, respectively, and the high and low scores are 148, and 56, respectively.

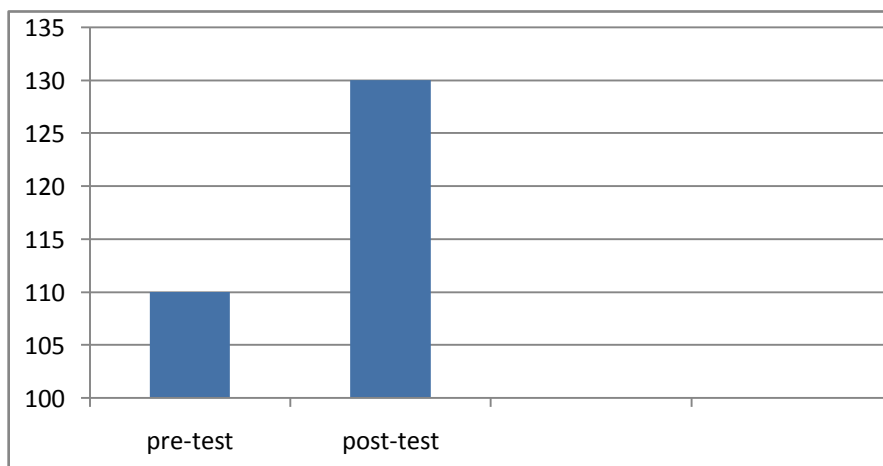


Figure 1: Mean sample test for kid's intelligence in pre-test and post-test

Research Article

Table 2: Descriptive statistics for kid's verbal intelligence in post-test

Variable	No.	Min.	Max.	Mean	SD.
Verbal intelligence	20	56	148	127.95	20.91707

In order to do data analysis and testing the hypothesis, the paired sample t-test was used.

Table 3: Paired sample t-test for comparing the mean of kid's verbal intelligence in pre-test and post-test

Mean differences	t	df	Sig.
-17.20	-4.312	19	0001

The amount of t is -4.312 and by regarding the df of 19 and the sig. level of 0.0001, we can conclude that the difference between the mean of kid's verbal intelligence in pre-test and post-test is significant. Due to the fact that pre-test scores were calculated via t-test primitively, the amount of t score (-4.312) shows more amount of mean in post-test for kid's verbal intelligence. Thus, it is evident that story-telling affects kid's verbal intelligence.

Conclusion

In this study, the researcher endeavored to focus on the effect of one of the most important kid's hobbies i.e. story- reading on kid's verbal intelligence. Various stories were read to kids during some sessions; finally the effect of story-reading was evaluated via pre – elementary school intelligence test; due to the fact that in the current study the null hypothesis is rejected, it is better to manoeuvre on the pros of this experiment and effect of story on kid's socio-verbal intelligence before explaining the qualitative hypothesis.

Stories reflect the real lives of kids to some extent and entail the worthiness and morality of some concepts. For instance, in stories like the real world, parents look for the kid's benefits; they blame evil and inappropriate behaviours; the kids understand the ways and its applications, such abilities make them ready to enter the primary school and flatten the learning route for them; thus, the kid gets on well with the surrounding environment when watching kid's programs on TV. They can provide verbal relationship with that program and gains more verbal skills regarding other kids.

The stories can teach the kids to confront problems indirectly. Using the characters and their experiences, the kids try not to repeat their mistakes and get advice based on the mistakes the characters make. Regarding this, we can say that story transfers many socio-moral norms to kids.

People regulate their operations in the cosmos and their relations to the others based on some series of stories. They discuss about the various events characters inside the stories (Dimajou *et al.*, 2003). We all form our experiences in a story format to make the events meaningful, to predict would be events, and to direct our activities (Salvadour *et al.*, 2007).

In this study, the null hypothesis is rejected and the directional hypothesis was confirmed because the obtained t value of 6.312 was significant ($P= 0.001$). Therefore, the mean difference in pre-test and post-test is significant. The mean for kid's verbal intelligence in post-test that shows the effect of story-telling on kid's verbal intelligence.

Limitation of the Study and Suggestion for Further Research

Regarding the fact that we dealt with kids of 6 year old in this study and totally working with kids is difficult, we faced some limitations, for instance while performing pre-test kids got fatigued and cooperated till the end of test with difficulty. They helped each other while answering pre-test and post-test questions (due to the fact that the kids were to answer the questions individually, the validity of the test is to be under question).

Research Article

While reading stories, sometimes the kids refused to listen to stories and played some tricks; some made disorders by for example eating food and making noise, and the like; in post-test some also refused to cooperate or refused to answer the repetitive questions, and due to the fact that the kindergarten instructors didn't allow to group the kids in 2 groups at first, (to make control and experiment groups) this makes the accuracy questionable; other limitations were that sometimes the kids didn't go to kindergarten and were absent. So, they weren't involved in the procedure of the experiment in some days.

After conducting this experiment on 6-year-old pre elementary students, it is better to present some suggestions regarding story-reading and strategies to increase their verbal intelligence:

1. Story-reading must be accompanied with full kid's preparation to have impact on kid's verbal intelligence and other kid's skills. Otherwise, not only it has no effect, but also it would be harmful.
2. Use of creativity besides story-reading would be beneficial.

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