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# Cognitive approach towards education and its impact on social responsibility of pre-school children

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## Abstract

This study investigates the impact of cognitive approach to education on the development of social responsibility in pre-school children. Twenty six female pre-school students (from Takrim Cognitive School) constituted the test group and twenty six female pre-school students (from Shookā Pre-School) constituted the control group. Variables such as age, sex, district of education and tuition costs were similar. At the beginning of school year both groups of students took Gresham Social Skills Rating System as pre-test, and took it again after eight months as post-test. In the test group, cognitive approach was exercised while in the control group traditional approach was being adopted. To disclose the difference between the two independent groups Mann–Whitney U test was used. Results of the study showed that there is a meaningful difference between the two groups in terms of their social responsibility toward themselves, other children, older people and environment.

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*Keywords:* cognitive approach, cognitive education, social responsibility.

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## 1. Introduction

One of the developments in the field of education is change of its priorities. In contemporary education the priority is not given to acquisition of knowledge, but to development of positive attitudes. To achieve this goal and to produce self-motivated, mature, creative and confident persons, adoption of student-centred strategies with a focus on cognitive approach, has been emphasized (Ashman & Conway, 2004).

According to Vigotsky (1978) and Bandura (1977), social interaction is an unavoidable source of children's mental development. In interaction with others, children learn how to behave and how to make judgments. Therefore, formal education should be also concerned about learner's social development, including their social responsibility, empathy and emotional intelligence.

Application of cognitive approach to formal education has been studied by other researchers. Haywood (2004) has described two programs of cognitive education, one for preschool children, and the other for older children, adolescents, and adults. He has presented data showing systematic classroom application of such programs by well

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trained teachers can lead to enhancement of cognitive development, intrinsic motivation, and even IQ. Choi (2000) has studied the effects of cognitive social skills training on pre-school children and reported significant improvement in the children's positive play relationships with peers.

Some Iranian researchers too, have examined the impact of cognitive approach on students' achievements. To mention, Abbāsi (in print) has examined the relation of cognitive approach with creativity of pre-school children and has concluded that a meaningful relationship exists between those two. On the other hand, Pāshā Sharifi (2005) has found a weak relation between cognitive approach and educational achievement of students.

### *1.1 The purpose of the study*

This study examines the impact of cognitive approach on development of social responsibility in pre-school children. Cognitive education is defined as the application of the findings of cognitive science, including cognitive psychology to education (Haywood, 2004). Social responsibility is defined as the responsibility of children towards themselves, other children, older people and the environment (Gresham & Elliott, 1990).

In order to apply cognitive approach to the selected pre-school environment, first, the teachers, assistant teachers, principal, and coaches were trained in cognitive approach. Then, the lesson plans and proposed activities were prepared in a way that each activity had to help students to develop a specific attitude, skill and knowledge and promote one or several of their multiple intelligences (Gardner, 2006).

## **2. Methodology**

### *2.1 Participants*

Twenty six female pre-school students (from Takrim Cognitive School) constituted the test group and twenty six female pre-school students (from Shookā Pre-School) constituted the control group. Variables such as age, sex, district of education and tuition costs were similar. At the beginning of school year the students took Gresham Social Skills Rating System as pre-test, and took it again after eight months as post-test. The test group was taught based on cognitive approach and the control group based on traditional methods.

### *2.2 Hypothesis*

The main hypothesis was that there is a positive relation between the exercise of cognitive approach in pre-school and development of social responsibility in children.

The following sub-hypotheses were also verified:

- 1- There is a positive relation between the exercise of cognitive approach in pre-schools and responsibility of children towards themselves.
- 2- There is a positive relation between the exercise of cognitive approach in pre-schools and responsibility of children towards other children.
- 3- There is a positive relation between the exercise of cognitive approach in pre-schools and responsibility of children towards older people.
- 4- There is a positive relation between the exercise of cognitive approach in pre-schools and responsibility of children towards their environment.

### *2.3 Measurement*

Gresham Social Skills Rating System test was utilized to collect data. It is a 33 item Likert type test which supposedly measures the four components of social responsibility skills of pre- school children (Gresham & Elliott, 1990). Four components of social responsibility measured by the test are: responsibility towards oneself, responsibility towards other children, responsibility towards older people, and responsibility towards environment. The Reliability and Durability/Stability of the test is reported in Table 1.

### 3. Results

To examine the first hypothesis i.e. the relationship between cognitive approach and responsibility towards oneself, Mann–Whitney U test was used to disclose the difference between two independent groups. Since the observed Z size was 3.1 for total, and on 0.5  $\alpha$  level was more than 1.96, it is assumed that there is a difference between the test group and control group, which shows those students taught based on cognitive approach are more responsible towards themselves than those taught in traditional way.

To examine the second hypothesis, i.e. the relationship between cognitive approach and responsibility toward other children, Mann–Whitney U test was used to disclose the difference between two independent groups. Since the Z size was 5.4 for total, and on 0.5  $\alpha$  level was more than 1.96, it is assumed that there is a difference between test group and control group, which shows those students taught based on cognitive approach are more responsible towards the other children than those taught in traditional way.

To examine the third hypothesis, i.e. the relationship between cognitive approach and responsibility toward older people, Mann–Whitney U test was used to disclose the difference between two independent groups. Since the Z size is 5.7 for total and on 0.5 level was more than 1.96, it is assumed that there is a difference between the test group and control group, which shows those students taught based on cognitive approach are more responsible towards the older people than those taught in traditional way.

To examine the fourth hypothesis, i.e. the relationship between cognitive approach and responsibility toward environment, Mann–Whitney U test was used to disclose the difference between two independent groups. Since Z size was 2.19 for total and on 0.5  $\alpha$  level was more than 1.96, it is assumed that there is a difference between test group and control group, which shows that those students taught based on cognitive approach are more responsible towards the environment than those taught in traditional way.

### 4. Discussion

In contemporary civilization development of social responsibility of children is highly emphasized. In addition, based on religious and moral principles individuals ought to be responsible towards themselves, each other, and the environment. Therefore, it is highly important that educational systems, especially at pre-school level, be concerned about development of social responsibility in children.

First years of life is crucial in learning, therefore, educational policy-makers should be cognizant of the importance of this period. Skills in communicating with others, understanding their intentions correctly, and reacting to others' feeling are capabilities that has to be developed during early years of life through interaction with others and engagement in cooperative and collaborative activities.

To prepare the students for their future life, the best strategy is undoubtedly to make individuals involved in real social situations and encourage them to acquire social skills by practice.

A curriculum developed based on cognitive approach due to its theoretical principles and teaching methods would have the capacity to outperform compared to traditional ones. The present study disclosed explicitly the positive impact of cognitive approach on development of social responsibility of pre-school children.

Table 1. Reliability and Durability/Stability of Research Tool

	Responsibility Indexes	$\alpha$ coefficient	Items
Responsibility or emotional-social growth in pre-school children	1- R. toward oneself	0.866	10-15
	2- R. toward other children	0.923	16-21
	3- R. toward older people	0.925	22-27
	4- R. toward environment	0.811	28-33

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