Cognitive Level and its Relation to Creative thinking for Children Aged (7 years)

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ABSTRACT:

Present study aimed to identify the relationship between the level of cognitive and innovative thinking in children aged 7 years. Researcher is used a descriptive approach to tackle the problem, school of mixed typical Al-Adnaniyah was chosen from the center of the province of Babylon among primary schools by a lot, where the number of pupils of first class aged 7 years (25) pupils (boy and girl) for the academic year 2012-2013, 5 pupils were excluded because they participated in pilot study and thus amounted of subject was (20) pupils (8) girls and (12) boys. Number of scientific references, thesis, and dissertations were read afterward we depended on cognitive level questionnaire for children which made by Lubna through converting concepts and symbols into images for the purpose of clarification and measured them, so the highest degree of the questionnaire is reached (88) and a lower is (zero) and the degree of neutrality is (44), we also relied on a Torrance questionnaire for innovative thinking of the children, where it is one of the most famous tests of mental developed to measure innovative thinking as it is easy and its instructions are available as well as correction key, researchers are also used verbal picture to test the movements and forms which is consisted of four activities and time of each of them 10 M. The researcher concluded that a significant correlation between the level of cognitive and creative thinking in children aged 7 years. The researcher recommends the need to conduct similar studies of people with special needs, as well as to rationalize the use of methods of innovation and draw the attention of teachers hoping for the innovative behavior of the children in the early stages.

Key wards: Cognitive Level, Creative thinking, Children

1. Introduction:

Childhood period is the most important periods to build children personality, in this period will be drown, composed, and prepared personality of children, where the features of the child's personality beforehand, and formed the habits and trends and grow the tendencies and preparations, skills and capacities are formed.

Innovation is one of the high-ranking of human event where scientific progress can’t be achieved without the development of the capacities of innovative in humans, as the evolution of humanity and progress depends on what can be available its innovative capabilities enable it to always deliver more innovations and contributions.
which you can face what unchallenged from urgent problems and worsening day after day (Abdel-Hamid., 1981). An innovation is also one of the richest mental activities for children while thinking is the highest levels of mental activity, a sensation and perception are initial stages in the cognitive processes that ensure an organized activity of the sensations and perceptions and mental images that become in the last stages of the foundation upon which an individual's ability to innovate, this innovation is formed in the end multiple images (Ahmed., 1984).

Proper innovative thinking must be preceded by perception and interpretation of the information by the child, the development of cognition in children is linked to the plenty of information needed to know things which often the child needs to amount of sensory information about the staff to recognize them, on this basis can be explained that information then shows his mind creatively. However, perception is to identify the outside world through various sensory stimuli, and it is a response to specific sensory stimuli when passing through one of our senses in a certain sense it will lead to a perception of what we feel, explain and understand (Suhaila., 2009). Perception is not learning but it is appearance of maturity in the growth as cognitive processes is maturated relatively independent of experiences and cognitive ability can be increased through experiences, given the importance of cognition and innovation to this age of being linked to the mind and the knowledge it was necessary to highlight on them and learn about their relationship with the primary first class.

The relationship between cognition and creative thinking in children stems through the environment in which they live, since he lives in a civilized world permanently change the cognitive and cultural heritage, and to realize the child stimuli in different environment and going on with many developments in the society he must have well thought characterized by creativity and innovation, due to lack of studies that shed light on the importance of cognition in the child's life and how it relates to innovative thinking, so the aim of present study is to shed light on the cognitive level and its relation to creative thinking for children aged 7 years.

2. Methodology:
2.1 Subject:
Researcher is used a descriptive approach to tackle the problem, school of mixed typical Al-Adnaniyah was chosen from the center of the province of Babylon among primary schools by a lot, where the number of pupils of first class aged 7 years (25) pupils (boy and girl) for the academic year 2012-2013, 5 pupils were excluded because they participated in pilot study and thus amounted of subject was (20) pupils (8) girls and (12) boys.

2.2 Measurements:
2.2.1 Cognitive level Questionnaire:
Number of scientific references, thesis, and dissertations were read afterward we depended on cognitive level questionnaire for children which made by (Lubna., 2000) through converting concepts and symbols into images for the purpose of clarification and measured them, so the highest degree of the questionnaire is reached (88) and a lower is (zero) and the degree of neutrality is (44).

2.2.2 Innovative thinking questionnaire:
Our study is depended on Torrance questionnaire for innovative thinking for the children, where it is one of the well-known mental tests developed to measure innovative thinking as it is easy and its instructions are available as well as correction
key, researchers are also used verbal picture to test the movements and forms which is consisted of four activities and time of each of them 10 M.

Torrance signed in his experiments guide for thinking (signs) that the four activities included in the battery corrected in three basic capabilities which are fluency, or flexibility, or originality. Fluency procedurally equal to the sum of responses related to that provided by the respondent for each stimulating, while flexibility procedurally is the number of categories in which individual responses for each activity are situated in, we have been corrected flexibility in present study by using an original correction guide for the innovative thinking test through using the movements and actions in children, However, Torrance based on determining the degree of originality over the scarcity of response (Torrence., 1981).

2.3 Scientific bases to measure the level of cognitive and innovative thinking:
2.3.1 The validity:
Researchers were verified validity of cognitive level and innovative thinking questionnaires through give these questionnaires to a set of experts and specialists, who confirmed we can use it on the age of the sample.

2.3.2 The reliability:
Researchers were verified reliability of questionnaires through apply them on subject amount of 5 children aged 7 years, they are from study society and out of main study subject, the experiment was conducted on Monday of Abril 1, 2013 and retest on Monday of Abril 8, 2013 as shown in table (1).

Table (1) shows statistical information and reliability of cognitive level and innovative thinking questionnaires.

<table>
<thead>
<tr>
<th>Variations</th>
<th>First week</th>
<th></th>
<th>Second week</th>
<th></th>
<th>reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>cognitive level</td>
<td>81.00</td>
<td>4.528</td>
<td>81.800</td>
<td>3.962</td>
<td>*0.920</td>
</tr>
<tr>
<td>innovative thinking</td>
<td>36.600</td>
<td>2.881</td>
<td>34.800</td>
<td>3.768</td>
<td>*0.958</td>
</tr>
</tbody>
</table>

Significant at the error ratio 0.05 and freedom degree 3 and tabulated C= 0.878.

Table (1) showed that the reliability value was beggar than tabulated C value (0.878) at the error ratio 0.05 and freedom degree 3, this referred to high correlation between two applies for cognitive level and innovative thinking questionnaires.

2.3 Main experiment:
Main experiment was conducted on Abril 10-11, 2013.

2.4 Statistical analysis:
SPSS was used in present study through using of mean, standard deviation, and simple correlation coefficient.
3. Results and discussion:

To verify hypothesis which said no significant correlation between cognitive level and innovative thinking in primary first class pupils, we treated our data as shown in table (2).

Table (2) shows correlation coefficient between cognitive level and innovative thinking in primary first class pupils.

<table>
<thead>
<tr>
<th>Variations</th>
<th>Mean</th>
<th>SD</th>
<th>Calculated correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>cognitive level</td>
<td>80.800</td>
<td>4.561</td>
<td>*0.461</td>
</tr>
<tr>
<td>innovative thinking</td>
<td>34.200</td>
<td>3.302</td>
<td></td>
</tr>
</tbody>
</table>

Table (2) showed that calculated correlation value was beggar than tabulated correlation value (0.444) at the error ratio 0.05 and freedom degree 18, this referred to high correlation between cognitive level and innovative thinking in primary first class pupils and this contradicts the hypothesis of the study. We attribute significant differences to several possible reasons.

Thinking is the highest activity of mind, while a sensation and perception are formed in the initial stages of the cognitive processes that ensure an organized activity at the end of the sensations and perceptions and mental images that become in the last stages of the foundation upon which an individual's ability to innovate, this innovation that is formed in the end multiple images (Mohamad., 1990).

Children of this stage characteristics easy thinking and perception of movements and plays because they are very close to their life. Dawood (1981) confirmed that children in this stage reached to high level of capacity to know the relations and correlations which connect between large means through observe the things as all to parts.

All children in this stage of age characteristics specific a grade of innovative thinking with different kind and level, these capacities show in different ages and in all fields but the important thing is stimulated these capacities and support them as well as ensuring a proper environment to improve them (Huda., 1993).

4. Conclusion:

Researchers found that a significant correlation between cognitive level and innovative thinking in primary first class pupils aged 7 years. However, researchers recommended the need to conduct similar studies of people with special needs, as well as to rationalize the use of methods of innovation and draw the attention of teachers hoping for the innovative behavior of the children in the early stages.

References:

