



1st, 2nd and 3rd Grade Primary School Students' Perceptions of 'Living Organism' Concept

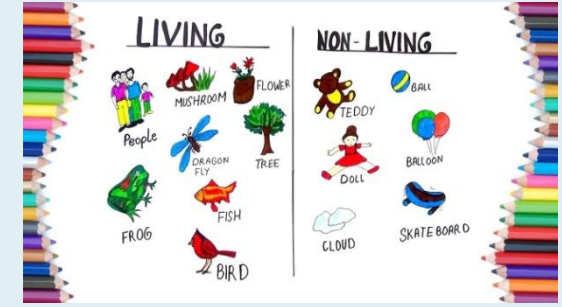
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Abstract

In this study, 1st, 2nd and 3rd grade primary school students' concept perceptions of "living organism" have been investigated and phenomenological design has been used. The sample of this study has been selected through simple random sampling method. Drawing technique has been benefited to collect data and "Form of Identification of 'Living Organism' Concept through Drawing Technique" as data collection tool has been used. Chi-square test has been used to analyze students' drawings with the relations between determined variables. There are differences between students' perceptions of 'living organism' concepts in terms of gender, number of siblings and living space.

Method

In this study, phenomenological design has been used. The sample of this study is consisted of 938 students studying at 14 different primary schools. Drawing technique has been used as a data collection tool. "Form of Identification of 'Living Organism' Concept through Drawing Technique", prepared by the researchers has been used as a data collection tool. Chi-square test has been used to analyze students' drawings with the relations between determined variables. Reliability analysis of the scale has been done by 1 expert and 3 teachers and the scale has been approved. The analysis has been done through following the steps respectively below:

- Elimination and Coding Stage
- Computerizing Data Stage
- Developing Categories Stage
- Ensuring Reliability Stage

According to Miles and Huberman, if reliability calculations are above 70 %, the analysis is accepted as reliable. In this study, the reliability of "Form of Identification of 'Living Organism' Concept through Drawing Technique" has been calculated as 90.3 %.



Introduction

Children at young ages should learn science concepts accurately because this will facilitate science education in their later steps of education. According to Piaget, one of the features of preoperational stage is animatism. Children at this stage can think the non-living organisms as living organisms. They establish a dialogue with their toys like they are living beings and can think that toys can hear and understand them. In spite of this, they can think living organisms as non-living organisms and behave accordingly. They can treat a living cat like a toy. In short, children cannot distinguish between living and non-living organisms at this stage. Because of children's young age drawing technique or picturing will enable students to express themselves accurately and this will also increase the motivation towards lesson.

Findings

0.2 % of students (f:2) didn't draw anything. 1.3 % of them (f:12) drew something wrong so couldn't perceive the concept. 46.6 % of them (f:437) partially perceived the concept and 51.9 % of them (f: 487) fully perceived the concept.

Students in general drew human being (f:302), tree (f:283), flower (f:251), bird (f:123), butterfly (f:108), cat (f:102) and dog (f:81). However, there were many various drawings. In students' drawings, it is seen that there are 1080 animal figures, 302 human being figures, 550 plant figures and 1 microbe figure.

The most made mistakes about the perceptions of living organisms are related with the concepts of "cloud" and "sun". Students used "sun" as a living organism in their drawings.

When the impacts of gender, the number of siblings and living space on 1st, 2nd and 3rd grade primary school students' concept perceptions of "living organism" have been examined, it is seen that there are significant differences between groups.

Conclusion

Two students cannot perceive the drawing of living organism, twelve students have made wrong drawings, 437 students have partially perceived the concept of living organism and 487 students have fully perceived the concept of living organism. According to these results, it is seen that students in general are able to distinguish the concept of living organism and express their feelings about it. However, there has not been enough research on the concept of living organism in early childhood. Various experimental designs can be made to contribute for uncovering concepts. There are many researchers related with this subject but the ability to accurately distinguish living things from non-living things may be related with the developmental process and the studies are not enough to examine the characteristic features of the drawings of the young children.