Bruner’in Zihinsel Gelişim İlkelerine Göre Yapılan Bilgisayar Destekli Eğitimin 3. Sınıf Geometri Dersi Başarısına ve Öğrenilenlerin Kalıcılığına Etkisi

Engl. transl.: The Effect of Computer Assisted Instruction According To Bruner's Cognitive Development Principles on 3rd Grade Geometry Course Achievement And Permanency Of Learned

# Keywords

* Academic achievement
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## Sample

The workgroup has consisted of 73 3rd grade students who were studying in a primary school in the Sultanbeyli district of Istanbul.

## Implications For Educators About

Professional development

## Implications For Stakeholders About

Researchers

# Abstract

The aim of the research is to examine the effect of computer assisted instruction according to Bruner's cognitive development principles on 3rd grade students' achievement and permanence in the geometry learning field. The study was conducted in fall term of 2015-2016 academic year. The workgroup has consisted of 73 3rd grade students who were studying in a primary school in the Sultanbeyli district of Istanbul. In the research the pre-test-posttest with control group experimental design was used. The geometry achievement test which was developed by the researchers and consist of 19 question were used as a data collection tool. Lessons in the experimental group were committed with activities according to Bruner's cognitive development principles. Also Okulistik and Morpa Kampüs software were used. In the control group the lessons were committed with the methods and techniques in the current program without computer. Data were analyzed with a statistical software package. The Shapiro-Wilk Test, Mann Whitney U-Test for Independent Samples, Wilcoxon Signed Rank Test for Paired Samples and Kruskal Wallis H-Test for Independent Samples test were used for analyzing data. As a result, it was seen that the computer assisted instruction according to Bruner's cognitive development principles have a statistically significant effect on the students’ academic achievement.

# Outcome

As a result of the research, although there was no difference between the pre-test scores, the difference in the post-test scores in favor of the experimental group, the computer-assisted education organized according to Bruner's mental development principles in the primary school 3rd grade geometry learning area showed the success of the students in the control group according to the teaching based on the curriculum and textbooks. demonstrated to be effective in increasing This result can be explained depending on the computer-assisted teaching activities organized according to the principles of mental development applied to the experimental group. Because, the students in the experimental group actively participated in the process with activities organized according to Bruner's mental development principles and did various activities; In addition, by ensuring their active participation in the computer-aided learning environment, educational activities were supported with visual and auditory animations, and students were given the opportunity to test their knowledge. (Çekirdekçi et al., 2016, p.91) (translated by the coder)