

## Üstün Yetenekli Öğrencilerin Görsel Anlatımlarında Geleceğin Dünyasına ve Teknolojisine İlişkin Algıları

## Perceptions of Talented Students in Their Visual Representations about the Future World and Technology

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### Öz

Bu araştırma üstün yetenekli ilköğretim öğrencilerinin 'geleceğin dünyası/teknolojisi' temasına ilişkin algılarını bilgisayar destekli tasarım eğitimi bağlamında ortaya koymayı amaçlamaktadır. Araştırma katılımcılarını Anadolu Üniversitesi Üstün Yetenekliler Eğitim Programları (ÜYEP)'nda öğrenim görmekte olan 6.,7. ve 8. sınıf 35 öğrenci oluşturmuştur. Araştırma üç aşamada gerçekleştirilmiştir. Bunlar (1) tasarım eğitimi süreci (2) uygulama süreci ve (3) değerlendirme sürecidir. Araştırma verileri öğrencilerin tasarım sürecinde ortaya koydukları ürünlerin uzman görüşlerine dayalı olarak yorumlanmasına dayalı metaforlar, sürece ilişkin öğrencilerle gerçekleştirilen yarı yapılandırılmış görüşmeler ve gözlem yoluyla toplanmıştır. Araştırmanın tasarım süreci sonucunda ortaya koydukları görsel verileri sanat temelli araştırma desenine dayalı olarak çözümlenmiştir.

**Anahtar Sözcükler:** geleceğin dünyası, teknoloji algısı, üstün yetenekli öğrenciler

### Abstract

In the present study, talented students' perceptions about 'future world and technology' were investigated in a computer-aided design education program. Participants of the study included a total of 35 elementary school 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade talented students who were attending the Education Programs for Talented Students (EPTS) at Anadolu University. The study was conducted in three phases: (1) design education process, (2) application process, and (3) evaluation process. Data was collected through interpretations of students' products in the design process as metaphors based on expert views and semi-structured interviews held with students regarding the process, and through observations. The visual data obtained at the end of the design process in the study were analyzed according to the art-based research design.

**Key Words:** future world, technology perception, talented students

### Summary

**Purpose and significance:** The present study aimed at investigating talented students' artistic representations and perceptions regarding the future world and technology through their animated designs according to their design-based representations. A learning environment which allows talented students to use their ability, thoughts and creativity in the process of design-based instructional activities is of great interest for them. It is important for talented students to have instructional experiences which provide independent and unique learning opportunities and special application areas that allow these students to show their abilities (CfBT, 2008).

**Results:** The participants of the study were talented elementary school students attending the Education Programs for Talented Students (EPTS) at Anadolu University. The criterion sampling method was used to select the research participants. The criterion for selecting the participants was attendance in the course of 'Computer-Aided Graphics Design' offered in the EPTS. The participants included a total of 35 elementary school 6th, 7th and 8th grade talented students. The study was conducted in three phases: instruction process, design process and evaluation process. Some preliminary preparations related to the design program were carried out considering that the students would use them while doing animated designs through the instruction process. The instruction phase involved an animated representation study during which the students designed their own animations. In the last phase, all the animate designs of the talented students were analyzed. The thematic analysis based on qualitative research method along with art-based inquiry was used. The thematic coding system for analyzing concepts revealed from the research data was implemented. The visual language used in pictorial representations produce messages, with its specialized codes. The degree of students' understanding and explaining their perceptions of technology in future composes the visual codes in this research. The results obtained in the study were grouped under two themes: talented elementary school students' ways of perception of the future world and talented elementary school students' ways of perception of future technology.

**Discussion:** Students' perceptions about the future world in their visual representations and in the interview forms based on their visual representations were mostly classified under the theme of the extinction of the world, nature and universe. Students had quite unusual and original ideas about future technology. It was seen that the students put forward such sub-themes as voyages between planets and space cars, flying cars, aliens' visit to the world, street air-conditioners, voyage to the moon by space rockets and voyage via teleportation. The students who generally had negative views about the future world considered technology as a way of solution to the awaiting problems in future. In the research process, based on the researcher's observations, it could be stated that the students taking design education were in the process of making design-related decisions and testing and discussing their knowledge about a certain goal; that they revised their needs, efficacies and creative potentials regarding the goal determined; and that they experimented, evaluated, developed and associated their decisions with the design process.

**Conclusions:** Depending on the findings of the present study, it can be concluded that students' perceptions of the future world and technology reveal quite a negative picture in general. There could be a number of reasons for this negative picture; however, considering the technology and media interaction involving students, it could be stated that there are negative reflections of such environments and the popular culture within this context. In addition, the themes regarding the extinction of the world and collision of the planets envisaged by the talented students for the future world as well as the students' visual representations

within the scope of the animated designs differ with respect to fantastic features. Their perceptions mostly focused on surrealistic themes. In this respect, depending on the research findings, talented elementary school students could not be said to have positive views about technological developments.