Extended Summary

**Computer Education and Instructional Technology Prospective Teachers'
Perceptions of Technology**

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Introduction

Technology has become an important part of human beings as they have been living together with technology since their childhood. The children who have been living together with technology are keen on learning and doing research at very young ages thanks to their sense of curiosity. Thus, teachers have to create active learning environments and also they have to satisfy the curiosity of children who are willing to learn. The quality of teachers is an important factor which shapes the teaching-learning process apart from the schools' hardware features. One of the main qualities that a teacher should possess is content knowledge. In recent years in addition to pedagogical content knowledge (PCK) introduced by Shulman (1986), knowledge of technology usage is considered among the fundamental qualifications which teachers should possess. In this context, it is required that teachers' perceptions of technology should be elicited so that they can integrate technology into their lessons.

People can express how they perceive the world with metaphors and thus metaphors are regarded as one of the primary cognitive tools. For example, prospective CEIT teachers' perceptions about the concept "technology" can be

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determined via metaphors. Determining prospective teachers' perceptions about technology can provide information about how they are going to approach this subject in the class in the upcoming days. Thus, revealing the prospective CEIT teachers' perceptions by examining their metaphors about "technology" will be important for the technology instruction which they will receive. In this regard the purpose of the study is to determine the "technology" perceptions of prospective teachers studying in CEIT by metaphors. The study was carried out with 53 first-year prospective teachers studying in the Department of CEIT in a public university in the fall term of 2014-2015 academic year.

The forms consisting of the statement "Technology is like ……………because ………" written few times were used as a data collection tool. In order to help prospective teachers to develop the metaphor according to the Forceville's metaphor structure, they were explained the concept of metaphor and they were asked to describe "teacher" using metaphors. Considering this, a metaphor must have three basic elements including target, source, and mapping. Considering these elements, the structure of metaphors was given in the sample presentation. The mapping elements of the metaphors obtained from the data were examined with content analysis. Therefore, the metaphors developed by the prospective teachers followed these stages: elimination and coding of metaphors, category development and providing validity and reliability.

According to the study's findings, it was found that out of 118 valid metaphors developed by the prospective teachers, 103 of them were included in positive category, 7 were in negative category and 8 were in the neutral category. As a result of the study it can be stated that prospective teachers perceived technology mostly with its positive sides and in addition to this, some of them had negative and neutral

perceptions regarding technology. It is considered that this result may have come out due to the department the prospective teachers were studying. Moreover, it is found that more metaphors with positive qualities were usually developed about the development of technology; its progress, technology's facilitating the life, and meeting the needs. The negative metaphors were usually associated with human health by the prospective teachers. Very few metaphors with neutral qualities emphasized that technology could be good or bad / be used well or badly regarding the purpose it is used for.