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A Content Analysis of Scientific Research Studies on Technology Leadership in Turkey

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Abstract

The purpose of the study: The purpose of this research study is to evaluate the scientific researches on technology leadership completed between the year of 2007- 2012 using the method of content analysis. It is important for the reason that this study provides information about the content of previous studies in research topic and research method. Method: Content analysis research design was used in this study. The coding book was formed by the researcher after scanning the literature and determination of the research purposes. Then the changes in the coding book were made by examining the theses, in accordance with expert opinions. The research population consists of 23 researches of technology leadership made in Turkey in the last 6 years. No sampling method was applied. It was analyzed using frequency and percentage.

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Keywords: technology leadership, content analysis, research

1. Introduction

With information technology development and innovation, computers, the Internet, and other information technologies are becoming important learning tools in students' everyday lives. Principals play various roles such as change agent, lifelong learner, main supporter, and resource provider in relation to ICT implementation in schools (Han, 2002). Therefore, principals need to understand the capacities of the new technologies, to have a personal proficiency in their use, and be able to promote a school culture which encourages exploration of new techniques in teaching, learning and management (Schiller, 2003). Studies showed that when administrators act as technology

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leaders, the teachers integrate and use technology more successfully (e.g., MacNeil & Delafield, 1998). The International Society for Technology in Education published Technology Standards for School Administrators, including the following categories:

(1) Leadership and Vision; Included in this standard is that a technology leader has the ability to inspire a shared vision among stakeholders and foster changes that maximize the use of digital resources to support instruction, learning, and student performance. Finally, the standard of visionary leadership details how effective school technology leaders advocate for policies, programs, and funding to support the vision and planning efforts related to technology.

(2) Digital-Age Learning Culture; This standard describes how school administrators must ensure that instruction improves digital-age learning and that the school and classrooms are sufficiently equipped with digital technologies that support individual student needs. Additionally, school technology leaders should "model and promote the frequent and effective use of technology for learning"

(3) Excellence In Professional Practice; this standard focuses on the leaders' role to empower educators to enhance student learning through technology. Standard three describes how school technology leaders must ensure time and resources are devoted to technology-focused professional development of teachers. Technology leaders must also participate in technology-related professional development themselves.

(4) Systemic Improvement; Central to this standard is data-driven decision-making that includes collaborating to collect data, analyse data, interpret findings, and share results around staff and student performance. The fourth standard also describes how school technology leaders must recruit and retain technology-savvy teachers and staff.

(5) Digital Citizenship; This standard focuses on the school leaders' responsibility for ensuring equitable access to digital tools as well as promoting, modeling, and establishing "policies for safe, legal, and ethical use of digital information and technology" (ISTE, 2007).

Lastly, besides vision and planning, managing technology resources has become a critical role in effective technology leadership. Principals need to manage personnel, time, support, and funding. Effective principals monitor the amount of technology, teachers' technology use, and technology infrastructure to ensure successful technology integration (Chang et al., 2008).

1.1. The purpose of the study

The purpose of this study is to evaluate the scientific research studies on technology leadership completed between the year of 2007- 2012 using the method of content analysis. The following research questions guide this research:

(1) What are the demographics of the research studies in the field of technology leadership in Turkey?
(2) What are the themes in research topics of studies in the field of technology leadership in Turkey?
(3) What are the research design types in the field of technology leadership in Turkey?
(4) What are the sampling techniques in research studies in the field of technology leadership in Turkey?

2. Method

In this study, the content analysis method was applied to research studies. Content analysis is defined as ―a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use‖ (Krippendorff, 2004, p.18). It also defined as ―a summarizing, quantitative analysis of messages that relies on the scientific method and is not limited as to the types variables that may be measured or the context in which the message are created or presented‖ (Neuendorf, 2002, p.10). Moreover, content analysis is defined as ―a technique that enables researchers to study human behavior in an indirect way, through the analysis of their communications‖ (Freankel & Wallen, 2005, p. 483). Another definition of content analysis is ―systematic assignments of communication content to categories according to rules and the analysis of relationships involving those categories using statistical methods‖ (Riffe, Lacy & Fico, 2005).

2.1. Sampling and Population