

21st Century Skills and Management Philosophy of Education Managers According to Views of Teachers

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Mehtap Akyel

Educational Sciences Master's Degree Student, Pamukkale University, Denizli, Turkey

 <https://orcid.org/0000-0002-3841-7456>

Zeynep Meral Tanrıöğen

Associate Professor of Educational Administration, Pamukkale University, Denizli, Turkey

 <https://orcid.org/0000-0001-6300-9457>

Abstract

The main purpose of this research is to determine the relationship between teacher perceptions of education managers between 21st-century skills and management philosophies. A simple random sampling technique is used in this research. This research is a quantitative study of the relational scanning model from the general scanning models. The sample of the research consists of 104 teachers who are working at private and state school levels in Denizli, Turkey in 2021. Within the scope of the research, "Educational Administrators' 21st Century Skills Scale" developed by Çoban et al. (2019) and the "Management Philosophy Scale" developed by Ayrıl and Tanrıöğen (2020) were used to collect data. The collected data were statistically analyzed by using Jamovi 1.6.15 program. To determine whether the data is not showing normal distribution, kurtosis and skewness values were observed. Parametric tests were used because the data showed normal distribution. Pearson Multivariate Correlation Coefficient was used to determine the relationship between 21st-century skills of education managers and management philosophies. According to the Pearson Correlation Coefficient result, school administrators have a positive high-level relationship between 21st-century skills and management philosophies with their perception of teachers. It can be said that the perception of management philosophy may increase when 21st-century skills increase in the organization. A simple Linear Regression Analysis test was used to measure the relationship between 21st-century skills of education managers and management philosophies. When the result of regression analysis is examined, it is seen that 21st-century skills are a significant predictor of management managers.

Keywords: Education Manager, Teacher Perceptions, 21st Century Skills, Management Philosophy, Technology, Development

Introduction

The developments in technology in the current century are constantly developing. These developments have completely affected the individuals who make up the society from the economic and social structure to their daily life. Advances in technology have made it possible to access information faster. An effective education system is required to quickly adapt to this development in technology. Therefore, education systems have had to renew themselves. In today's world, the characteristics that individuals should have changed. Individuals of our age are now expected to adapt quickly to the changes and transfer the information to daily life and, accordingly, gain a place in society by criticizing and questioning (Boyacı and Özer, 2019). This research is prepared to examine the relationship between 21st-century skills of education managers and management philosophies.

Significance of the Study

This study was mainly conducted for the teachers' perceptions on the relationship between the 21st skills of education managers and management philosophies. It is foreseen that standard jobs and even daily tasks will be made by machines improved by artificial intelligence in the next few years. It can be said that the state and private sector institutions cannot be employed; the working group will be replaced by machines. So, in this century, "being able to work together" and "teamwork" are very important skills. Individuals should use their creativeness, critical thinking, and cooperative work to solve the problem. Considering all this, it is seen that education managers and teachers should adapt their 21st-century skills to training programs.

Objectives of the Research Study

In this research, the answers are sought to the following questions:

1. What are the relationships between 21st-century skills and management philosophies according to the perceptions of teachers?
2. Do the 21st-century skills predict management philosophy according to teachers' perceptions?

Literature Review

When the studies were carried out in Turkey, Ulusoy and Eryılmaz (2015) emphasized the importance of 21st-century skills. Another dimension of the study was the Fatih Project, which aims to effectively integrate information technologies into the learning-teaching process. Gelen (2017) ensured that developments, which are widely applied in the USA and worldwide and started to be modeled and implemented in education systems in various countries, are recognized. In the research, the document analysis technique was used electronically within the scope of descriptive research techniques from scanning research techniques. Cansoy (2018) studied the 21st Century skills, which are first framed by different institutions and organizations and which individuals need to acquire. It was examined how 21st Century skills can be gained to students within the education system. Kasap (2020) aimed to determine the 21st-century executive abilities of managers in enterprises producing services and products.

Relational scanning model from quantitative research models was used in the research. The universe of the research was made up of businesses that produce services and products working in the Marmara Region. The sample group of the study consisted of business employees operating in İstanbul and Bursa in the Marmara Region. "Education Manager 21st century Skills Scale" was used in the research. In the study, descriptive statistical analyses, t-test, ANOVA, and relationship analyses were used. Uçak and Erdem (2020) examined the 21st-century skills that developed as the educational understanding of the century. The study examined the overlap of the educational objectives of international actors leading education, especially the OECD and IMF, with market demands. Koç (2021) examined the level of fulfilling the technology leadership roles of school administrators and to some demographic variables (gender, education status, seniority, and school type), which is not differentiated according to teacher perceptions. The Technology Leadership Scale of Managers has been used to collect data. As a result of the research, the perceptions of teachers' school roles of school administrators have been highly high in terms of vision, support, communication, and cooperation—Özdemir et al. (2021) revealed the relationship between strategic leadership behaviors and the 21st-century skills of school principals. In the study, quantitative research and screening models were used. 21st Century Training Manager Skills Scale and Strategic Leadership Scale were used. In all dimensions of their skills, positive relations between strategic leadership behaviors have been significantly modified. When the studies carried out abroad are examined, Av (2014) dealt with the problematic issues of educational management with philosophical educational point of view in terms of modernity. Phones et al. (2019) evaluated the 21st-century skills of principals in the Loei Primary Service District Office in Thailand to create development strategies and evaluate the development strategies of principals' 21st-century skills. When all these studies are viewed, the study of 21st-century skills and management philosophy is not found.

When the literature was reviewed, few studies were found in management philosophy. These studies and their results are as follows; Akdeniz

(2008) investigated “Atatürk and his management philosophy.” As a result of the research, the principles that Atatürk led himself to were explained as transparency, universality, working and struggling, freedom, humanism, rationality, scientificity, realism, idealism, progressiveness, equality, separation of management and beliefs, innovation. It has been seen that Atatürk’s understanding of management philosophy has the feature of including the people in decisions and including them in the administration. Yavuz (2009) investigated the “evaluation of school principals’ views and practices regarding management in terms of management theories.” It has been concluded that school principals are closer to classical theory practices in both their views and practices about management. In the research conducted by Ismail (2013) named “An Analysis of Human Motivation in National Higher Education University (Nheu) Using Theory X And Theory Y: Academic Staff Perspective,” the attitudes of 99 academicians were investigated. In line with the findings, it was found that they gave importance to internal motivation and also tended to take responsibility. Özden and Hamedoğlu (2015) also researched “The management understanding of today’s school administrators in terms of management theories.” School administrators consider themselves more contemporary and closer to people. It has been seen that teachers do not always think in this way.

Research Methodology

In the research, the quantitative research model and relational scan pattern were used to examine the 21st-century skills according to teacher perceptions. To collect data, a simple random sampling technique was used. The collected data were statistically analyzed by using Jamovi 1.6.15 program and analyzed by using Pearson Multivariate Correlation Coefficient and Simple Linear Regression Analysis. The sample of the research consists of 104 teachers who are working at private and state school levels in Denizli, Turkey in 2021. Within the scope of the research, “Educational Administrators’ 21st Century

Skills Scale” developed by Çoban et al. (2019) and the “Management Philosophy Scale” developed by Tanrıoğen (2018) were used to collect data.

Analysis and Results

To determine whether the data showed normal distribution, kurtosis and skewness values were observed. Parametric tests were used because the data showed normal distribution. The kurtosis and skewness values are between ± 1.5 indicates that the distribution is normal (Tabachnick & Fidell, 2013). Data on normal distribution is given in Table 1.

Table 1: Kurtosis and Skewness Values of the 21st Century Skills Scale and Management Philosophy Scale

Scales	Kurtosis	Skewness
21 st Century Skills	-.306	-.459
Management Philosophy	1.06	-.402

*p= .05

The first objective of the research is “What are the relationships between 21st-century skills and management philosophies according to the perceptions of teachers?” To answer the research’s first objective, Pearson Multivariate Correlation Coefficient is analyzed. While interpreting the correlation coefficient, interpretation is made according to the direction and the level of the relationship. If variables are increasing at the same time or decreases at the same time, it is called a positive directional relationship. If one is increasing while the other is decreasing, it is called a negative directional relationship. According to Büyüköztürk (2012), it is accepted that it indicates a low relationship between $\pm .00$ and $\pm .29$, the medium between $\pm .30$ and $\pm .69$, and high between $\pm .70$ and ± 1.0 . The relationships between education managers by 21st-century skills and management philosophies according to the perceptions of teachers is given in Table 2.

Table 2: Pearson Multivariate Correlation Coefficient Results

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.21st century Skills	-												
2.Creativity	.973*	-											
3.Critical Thinking	.980*	.963*	-										
4.Communication	.979*	.948*	.961*	-									
5.Collaboration	.985*	.955*	.966*	.971*	-								
6.Information literacy	.980*	.959*	.959*	.944*	.963*	-							
7.Media literacy	.933*	.889*	.889*	.896*	.906*	.934*	-						
8.Technology literacy	.891*	.844*	.851*	.830*	.847*	.897*	.893*	-					
9.Autonomy	.980*	.934*	.954*	.961*	.960*	.951*	.911*	.863*	-				
10.Productivity	.980*	.942*	.942*	.952*	.963*	.956*	.924*	.876*	.962*	-			
11.Leadership	.986*	.956*	.959*	.964*	.969*	.958*	.911*	.883*	.966*	.967*	-		
12.Social skills	.972*	.944*	.949*	.952*	.957*	.949*	.890*	.826*	.954*	.962*	.952*	-	
13.Management Philosophy	.750*	.717*	.741*	.703*	.726*	.753*	.697*	.759*	.754*	.726*	.738*	.709*	-

*p < .01

According to table 2, a highly significant positive relationship was found between the two variables. ($r = .750$; $p < .05$). In addition, the determination coefficient was calculated and the value of $R^2 = .562$ was obtained. According to the determination coefficient value, 56.2% of the change in another variable can be explained.

On the other hand, when we look at the level and direction of the relationship between the subdivisions of 21st century skills and the philosophy of management, it has been determined that there is a high level, positive and meaningful relationship between creativity and management philosophy ($r = .973$, $p < .05$); thinking and philosophy of management ($r = .980$, $p < .05$); communication and philosophy of management ($r = .979$, $p < .05$); collaboration and philosophy of management ($r = .985$, $p < .05$); information literacy and philosophy of management ($r = .980$; $p < .05$); media literacy and philosophy of management ($r = .933$, $p < .05$); technology literacy and philosophy of management ($r = .891$, $p < .05$); autonomy and philosophy of management ($r = .980$, $p < .05$); productivity and philosophy of management ($r = .980$, $p < .05$); leadership and philosophy of management ($r = .986$, $p < .05$) and

social skills and philosophy of management ($r = .972$, $p < .05$). Accordingly, when the 21st century skills increase, the perception of management philosophy may also increase or 21st century skills decrease, the perception of management philosophy may also decrease in the organization.

The second objective of the research is "Do the 21st-century skills predict management philosophy according to teachers' perceptions?" To answer the second objective of the research, Simple Linear Regression Analysis was used. The result of the regression analysis is given in table 3.

Table 3: Simple Linear Regression Analysis Results

	B	SH _B	β	t	p
Sabit	36.6941	2.46776		14.9	< .00001
21.yy Bec.	.0809	.00744	.750	10.9	< .00001
R = .750; R ² = 562 F _{1,92} = 118; p < .00001					

According to table 3, 21st century skills is a significant predictor of management philosophy

($t = 10.9$; $p < .05$). A regression model can be established between 21st-century skills and management philosophy.

Management Philosophy = $36.6941 + 0.0809 \times$
21st century skills + mistake

With a one-unit increase in 21st-century skills, an increase of 0.0809 units in management philosophies can be expected. This model explains 56.2% of the variance in management philosophy; the remaining 43.8% of the variance is explained by other variables not included in the study.

Discussion

This study, it was examined the relationship between school administrators' 21st-century skills and management philosophy. It was concluded that school administrators' 21st-century skills and management philosophies are at a high level. These results are similar to other research. In many studies, it was determined that teachers' 21st-century skills were medium or high level in parallel with these research results (Kozikoğlu ve Özcanlı, 2020; Ainley ve Luntley, 2007; Bunker, 2012; Göksun, 2016; Sanders ve Rivers, 1996). Accordingly, it can be said that school administrators can fulfill their 21st-century skills in a qualified manner. When we look at the level and direction of the relationship between the subdivisions of 21st-century skills and the philosophy of management, it has been determined that there is a high-level, positive and meaningful relationship. As a result of simple linear regression analysis, it has been found that the 21st skills of school managers have a high level and meaningful relationship with the management philosophies. It explains 56.2% of the variance in management philosophy. When the findings of the research are examined, according to teacher perceptions, it has been observed that the philosophy of the X and Y theory is high in the management philosophy of school administrators. As a result of the research conducted by Saraman (2017) on the administrative staff of Bartın University, it was seen that the employees were closer to the X Theory Philosophy. In the study conducted by Özden and Hademoğlu (2015), teachers found the administrative behaviors of school administrators mostly close to the Philosophy of Theory X, and sometimes close to the Philosophy of Theory Y.

Yavuz (2009), reached that school principals are closer to classical theory practices in both their views and practices about management. Akdeniz (2008) reached that Atatürk's understanding of management philosophy has the feature of including the people in decisions and including them in the administration. No research has been found that directly examines the relationship between teachers' 21st-century teaching skills and management philosophies. The results of the literature review also support the results of this research.

References

- Akdeniz, Ender. *Atatürk and Administration Philosophy*. Mersin University, 2008.
- Altun, Adnan. "Media Literacy in the Turkey." *Primary Education Educator Journal*, 2008, pp. 30-34.
- Ainley, Janet, and Micheal Luntley. "Towards an Articulation of Expert Classroom Practice." *Teaching and Teacher Education*, vol. 23, no. 7, 2007, pp. 1127-38.
- Ayral, Tuna, and Abdurrahman Tanrıoğen. "The Relationship between School Principals' Management Philosophies and School Transparency Levels." *The Journal of International Social Research*, vol. 13, no. 75, 2020.
- Bawa, Mohamed Ismail Mohideen. "An Analysis of Human Motivation in National Higher Education Universities (NHEU) using Theory X and Theory Y: Academic Staff Perspective." *International Symposium on Harnessing Knowledge Through Research to Address Emerging Global Issues*, 2013.
- Belet Boyacı, Ş, Dilek, and Mediha Güner Özer. "The Future of Learning: Turkish Language Course Curricula from the Perspective of 21st Century Skills." *Anadolu Journal of Educational Sciences International*, vol. 9, no. 2, 2019, pp. 708-38.
- Bunker, Diane H. *Teachers' Orientation to Teaching and their Perceived Readiness for 21st Century Learners*. The University of Texas at Arlington, 2012.
- Büyüköztürk, Şener. *Sosyal Bilimler için Veri Analizi El Kitabı*. Pegem Publishing, 2012.

- Cansoy, Ramazan. "21st Century Skills According to International Frameworks and Building them in the Education System." *Journal of the Human and Social Science Researches*, vol. 7, no. 4, 2018.
- Çoban, Özgür, et al. "Developing on Educational Administrators' 21st Century Skills Scale: Study of Validity and Reliability." *Kastamonu Education Journal*, vol. 27, no. 3, 2019, pp. 1059-71.
- Eryılmaz, Selami, and Çelebi Uluyol. "Evaluation of FATİH Project in the Consideration of 21st Century Skills." *GEFAD*, vol. 35, no. 2, 2015, pp. 209-29.
- Gelen, İsmail. "P21- 21st Century Skill Frameworks in Curriculum and Instruction (USA Practices)." *Journal of Interdisciplinary Educational Research*, vol. 1, no. 2, 2017, pp. 15-29.
- Göksün, Derya Orhan, and Adile Aşkı Kurt. "The Relationship between Pre-Service Teachers' Use of 21st Century Learner Skills and 21st Century Teacher Skills." *Education and Science*, vol. 42, 2017, pp. 107-30.
- Özden, Ebru, and Mehmet Ali Hamedoğlu. "Today's School Manager's Management Comprehension Examined in Point of Management Theories." *Sakarya University Journal of Education*, vol. 5, no. 3, 2015, pp. 7-26.
- Kasap, Mesut. "A Study on Determining 21st Century Executive Abilities; The Case of Istanbul and Bursa." *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, vol. 24, no. 3, 2020, pp. 1037-52.
- Kondratyeva, A.V. "Philosophy of Educational Management." *Grani*, vol. 17, no. 4, 2014, pp. 50-53.
- Kozikoğlu, İshak, and Nurullah Özcanlı. "The Relationship between Teachers' 21st Century Teaching Skills and Their Engagement to the Profession." *Cumhuriyet International Journal of Education*, vol. 9, no. 1, 2020, pp. 270-90.
- Sanders, W.L., and J.C. Rivers. *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement*. University of Tennessee, 1996.
- Saraman, Tuğba. *Leadership Approach and Douglas McGregor's X and Y Theory: A Study on the Administrative Staff in Bartın University*. Bartın University, 2017.
- Tabachnick, Barbara G., and Linda S. Fidell. *Using Multivariate Statistics*. Pearson, 2013.
- Fişkinli, Gamze, and Abdurrahman Tanrıoğen. "The Relationship between School Administrators' Management Philosophy and the Political Tactics they Use." *Route Educational and Social Science Journal*, vol. 7, no. 12, 2020, pp. 229-40.
- Yavuz, Mustafa. "Evaluation of School Principals' Views and Practices on Management in Regard of the Management Theories." *Journal of Values Education*, vol. 7, no. 18, 2009, pp. 121-55.

Authors Details

Mehtap Akyel, Educational Sciences Master's Degree Student, Pamukkale University, Denizli, Turkey

Email ID: mmehtapakyel@gmail.com

Zeynep Meral Tanrıoğen, Associate Professor of Educational Administration, Pamukkale University, Denizli, Turkey, **Email ID:** zmtanriogen@pau.edu.tr