OSMANGAZİ JOURNAL OF EDUCATIONAL RESEARCH



OJER: http://ojer.ogu.edu.tr

Osmangazi Journal of Educational Research is published by Institute of Education in Eskisehir Osmangazi University, Türkiye

OSMANGAZİ JOURNAL OF EDUCATIONAL RESEARCH

(OJER)



Volume 11, Number 2, Fall 2024

Correspondence Address

OJER Dergisi, Eskişehir Osmangazi Üniversitesi, Eğitim Bilimleri Enstitüsü, Meşelik Yerleşkesi, Eğitim Fakültesi Yeni Binası B Blok Kat.4, 26480 Eskişehir/Türkiye

E-mail: ojer@ogu.edu.tr Tel: +902222393750 /ext. 6300

Fax: +90 222 239 82 05

Contents

Volume 11, Number 2, Fall 2024

Contents	iii
Articles	iii
Editorial Commissions	iv
Editorial Board	vi
Reviewer List	ix
From the Editor	xii
Articles	
11.2.1. What the Distance Education Themed Master's Theses and Dissertations in Türkiye Examined Prior to Covid-19 Pandemic	1-30
•	1-30
11.2.2. The Relationship Between Conflict Management Styles of School Principals and Teachers' Cynicism Levels	31-57
11.2.3. The Role of Learning Organization and Talent Management in the Effect of The Transformational Leadership Styles of School Principals in Innovation Management in their Schools	58-81
11.2.4. Depiction of The Relationship Between Human And Nature In The 9th Grade Geography Textbook	82-97
11.2.5. The Relationship Between 9 th Grade Students' Symbol Sense Behaviors, Algebraic Thinking Skills and Academic Achievement A Case Study	98-134
11.2.6. Adaptation Study of the Ecological Literacy Scale for Middle School Students	135-163
11.2.7. Teachers' Opinions on the Teaching Skills of Primary Teacher Candidates	164-198
11.2.8. Implementing Mathematical Modelling with Calculus of Variations to Design a Disaster Tent	199-212
11.2.9. Art Education in Türkiye During the Republican Period (1938-1950)	213-232

Editorial Commission

Editor-In-Chief

M. Zafer BALBAĞ, Ph.D.

Eskişehir Osmangazi University, TÜRKİYE

E-mail: <u>zbalbag@ogu.edu.tr</u>

Tel: +90-222-239 3750 (ext. 6300)

Fax: +90-222-239 82 05

Postal Address: Eskişehir Osmangazi Üniversitesi, Eğitim Bilimleri Enstitüsü, Meşelik Yerleşkesi

26480 Eskişehir / TÜRKİYE

Editor-In-Chief Assistant

Emre EV ÇİMEN, Ph.D.

Eskişehir Osmangazi University, TÜRKİYE

E-mail: evcimen@ogu.edu.tr

Tel: +90-222-239 3750 (ext. 6302)

Fax: +90-222-239 82 05

Postal Address: Eskişehir Osmangazi Üniversitesi, Eğitim Bilimleri Enstitüsü, Meşelik Yerleşkesi

26480 Eskişehir / TÜRKİYE

Editorial Assistants

Z. Melis DEMİR, Ph.D.

Eskişehir Osmangazi University, TÜRKİYE

E-mail: <u>zmelisdemir@gmail.com</u> Tel: +90-222-239 3750 (ext.6812)

Postal Address: Eskişehir Osmangazi Üniversitesi, Eğitim Fakültesi, Meşelik Yerleşkesi 26480 Eskişehir /

TÜRKİYE

Gözde TEKBAŞ, Researcher

Eskişehir Osmangazi University, TÜRKİYE

E-mail: gozde.tekbas@ogu.edu.tr
Tel: +90-222-239 3750 (ext.6754)

Postal Address: Eskişehir Osmangazi Üniversitesi, Eğitim Fakültesi, Meşelik Yerleşkesi 26480 Eskişehir /

TÜRKİYE

Merve YAVUZ, Researcher

Eskişehir Osmangazi University, TÜRKİYE

E-mail: merve.yavuz@ogu.edu.tr
Tel: +90-222-239 3750 (ext.6782)

Postal Address: Eskişehir Osmangazi Üniversitesi, Eğitim Fakültesi, Meşelik Yerleşkesi 26480 Eskişehir /

TÜRKİYE

Proofreaders

Emine EREN GEZEN, Ph.D.

Eskişehir Osmangazi University, TÜRKİYE

E-mail: egezen@ogu.edu.tr

Tel: +90-222-239 3750 (ext.6853)

Postal Address: Eskişehir Osmangazi Üniversitesi, Yabancı Diller Eğitimi Bölümü, Meşelik

Yerleşkesi 26480 Eskişehir / TÜRKİYE

Editorial Board

İsmail ACUN, Ph.D. / Department of Social Studies Education, Eskişehir Osmangazi University, TÜRKİYE

Hüseyin ANILAN, Ph.D. / Department of Primary Education, Eskişehir Osmangazi University, TÜRKİYE

Eyüp ARTVİNLİ, Ph.D. / Department of Social Studies Education, Eskişehir Osmangazi University, TÜRKİYE

Mustafa Zafer BALBAĞ, Ph.D. / Department of Mathematics and Science Education, Eskişehir Osmangazi University, TÜRKİYE

Gülay BOZKURT, Ph.D. / Department of Mathematics and Science Education, İzmir Demokrasi University, TÜRKİYE

Esra BUKOVA GÜZEL, Ph.D. / Department of Mathematics and Science Education, Dokuz Eylül University, TÜRKİYE

Salih ÇEPNİ, Ph.D. / Department of Mathematics and Science Education, Uludağ University, TÜRKİYE

Esra EREN, Ph.D. / Department of Computer and Instructional Technology, Eskişehir Osmangazi University, TÜRKİYE

Onur ERGÜNAY, Ph.D. / Department of Foreign Language, Eskişehir Osmangazi University, TÜRKİYE

Ali ERSOY, Ph.D. / Department of Primary Education, Anadolu University, TÜRKİYE

Emre EV ÇİMEN, Ph.D. / Department of Mathematics and Science Education, Eskişehir Osmangazi University, TÜRKİYE

Ali İlker GÜMÜŞELİ, Ph.D. / Department of Educational Sciences, Okan University, TÜRKİYE

Dave HILL, Ph.D. / Visiting Professor of Critical Education Policy and Equality Studies, University of Limerick, IRELAND

Oana-Ramona ILOVAN, Ph.D. / Babeş-Bolyai University, ROMANIA

Hélia JACINTO, Ph.D./ Department of Mathematic Education, Lisbon University Lisbon, PORTUGAL

Ahmet KAÇAR, Ph.D. / Department of Mathematics and Science Education, Kastamonu University, TÜRKİYE

Ersin KARADEMİR, Ph.D. / Department of Mathematics and Science Education, Eskişehir Osmangazi University, TÜRKİYE

Semra KIRANLI GÜNGÖR, Ph.D. / Department of Educational Sciences, Eskişehir Osmangazi University, TÜRKİYE

Aikaterini KLONARI, Ph.D. / University of the Aegean, GREECE

Peter R. LITCHKA, Ph.D. / Loyola University Maryland, School of Education, Educational Leadership Program, USA

Russ MARION, Ph.D. / Clemson University, School of Education, Educational Administration, USA

Macit Ayhan MELEKOĞLU, Ph.D. / Special Education, Boğaziçi University, TÜRKİYE

Hamit ÖZEN, Ph.D. / Department of Educational Sciences, Eskişehir Osmangazi University, TÜRKİYE

Uğur SAK, Ph.D. / Department of Special Education, Anadolu University, TÜRKİYE

Jesus Granados SÁNCHEZ, Ph.D. / University of Girona, SPAIN

Emilia SARNO, Ph.D. / ANSAS Molise – University of Molise, ITALY

Melih TURĞUT, Ph.D. / Department of Teacher Education, Norwegian University of Science and Technology, NORWAY

Lieven VERSCHAFFEL, Ph.D. / Centre for Instructioanal Psychology and Technology, Katholieke Universiteit Leuven (KULeuven), BELGIUM

Witold WILCZYŃSKI, Ph.D. / Pedagogical University of Kraków, POLAND

Kürşat YENİLMEZ, Ph.D. / Department of Mathematics and Science Education, Eskişehir Osmangazi University, TÜRKİYE

Zeynep YURTSEVEN AVCI, Ph.D. / Department of Computer and Instructional Technology, Eskişehir Osmangazi University, TÜRKİYE

*Editorial Board members are alphabetically ordered by last names

Reviewer List for Volume 11, Number 2, Fall 2024

Elif Benzer, Ph.D. Marmara University, TÜRKİYE

Nazım Çoğaltay, Ph.D. Siirt University, TÜRKİYE

Handan Demircioğlu, Ph.D. Sivas Cumhuriyet University, TÜRKİYE

Erol Duran, Ph.D. Uşak University, TÜRKİYE

Halil Güçer, Ph.D. Dokuz Eylül University, TÜRKİYE

Genç Osman İlhan, Ph.D. Yıldız Teknik University, TÜRKİYE

Hasan Özgür Kapıcı, Ph.D. Boğazici University, TÜRKİYE

Derya Kılıçoğlu, Ph.D. Eskişehir Osmangazi University, TÜRKİYE

Abdullah Saykılı, Ph.D. Anadolu University, TÜRKİYE

Necla Şahin Fırat, Ph.D. Dokuz Eylül University, TÜRKİYE

^{*}Reviewer List is alphabetically ordered by last names

Reviewer List for Volume 11, Number 2, Fall 2024

Emine Özgür Şen, Ph.D. Yozgat Bozok University, TÜRKİYE

Turan Temur, Ph.D. Anadolu University, TÜRKİYE

Çetin Terzi, Ph.D. Anadolu University, TÜRKİYE

Tuğba Turgut, Ph.D. Amasya University, TÜRKİYE

Serap Uğur, Ph.D. Anadolu University, TÜRKİYE

Kamil Uygun, Ph.D. Uşak University, TÜRKİYE

Emine Nur Ünveren Bilgiç, Ph.D. Düzce University, TÜRKİYE

Öznur Yazıcı, Ph.D. Karabük University, TÜRKİYE

Kürşat Yenilmez, Ph.D. Eskişehir Osmangazi University, TÜRKİYE

*Reviewer List is alphabetically ordered by last names

© All ri	ights reserved by Institute of Education, Eskişehir Osmangazi University.
	azi Journal of Educational Research (OJER) is published by the Institute of Education of Eskisehir Osmangazi University, Türkiye.
	n online, open-access, international, scholarly, peer-reviewed journal offering rly research articles on various topics in all areas of educational sciences.
All subm	nitted manuscripts must be original, previously unpublished and not under consideration for publication in any type of publication outlet.
	OJER is being published twice a year.

(Mustafa Kemal ATATÜRK)

Dear Readers,

The Great Leader Mustafa Kemal Atatürk emphasized the importance of the human being's power of thinking and producing ideas with his laconic: "All progress is the product of human ideas. Our first job should be to put ideas into action. It is enough for the nation to control its ego and think! Even if it thinks wrongly at the beginning, it can correct this mistake after a short time. Once an idea starts working, everything gradually gets in order and gets better." Every kind of progress made towards the future is a result of human's intellectual activity. Being able to put ideas into action, that is, enabling people to think, is the first step of this progress. When an individual starts thinking, she/he sees that ideas can be forwarded to the right direction in time, even if they are wrong at the beginning. Because thinking is the process of learning from mistakes and finding the right. Atatürk also emphasized this in his laconic: "The real guide for everything in the world, for life, for success is science. Looking for a guide other than science is carelessness, ignorance, and deviating from the right path. However, it is a must to understand the development of science and the stages of science in every minute we live and to follow their progress. Trying to apply the general rules drawn by the language of science and science from one thousand two thousand years ago in the same way today is certainly not being in science and science."

In these days when we have left the year 2024 behind, many researchers and scientists worldwide have continued to contribute to educational research with their studies. These studies enlighten everyone from researchers to practitioners; those who make policies, design, implement, learn and teach. C. Coleridge says in his saying that "the first thing that catches the eye in an educated person is the methodical work of their mind. The approach of working with methods, methods and systems is reflected not only in the academic research of researchers but also in their daily lives. With its structure that thinks, investigates and questions in accordance with the purpose of education; it contributes to individuals and production in terms of being a part of the solution, not the problem. In our age of information, technology and education in every sense, and in reality, education means preparing children for the conditions in which they will continue their existence,

first in the world and then in their own environments (W. Van Goethe). One of the basic purposes of education is to make children aware of their own abilities. In this context, it can be said that education should be a guide for individuals to comprehend the art of living. Indeed, just as knowing something is a skill, teaching it is also a skill. In educational research, many studies are carried out aiming to update and improve education; what, how and in what way to learn. Indeed, educational research covers an important area that plays a fundamental role in the development of individuals and societies. Studies in this field aim to ensure that educational systems become more effective, accessible and sustainable. Educational research directly or indirectly contributes to the solution of problems in education by addressing many issues such as teaching methods, learning processes, student achievements and educational policies. At the same time, it helps to develop strategies supported by scientific data for the success of innovations made in educational systems. Thus, educational research is not only an academic field, but also a fundamental building block that shapes the future of society.

OJER (Osmangazi Journal of Educational Research), which brings together researchers and readers in the field of educational research, aims to contribute to educational research and facilitate the sharing of educational knowledge. OJER is published twice a year in English by Eskişehir Osmangazi University Institute of Educational Sciences. It is an online, open accessed, international, peer-reviewed journal that offers scientific research articles in all fields of educational sciences. Qualitative, quantitative, mixed method and compilation type studies in many fields whose subject is education and training; research results from theory to practice are included. Our goal is to promote researches that are novel, creative, enlightening, guiding and thus that help shape the future of education with emphasis on ethical values.

In this issue of **OJER**, there are important studies that will contribute to the field. We would like to express our gratitude to the researchers, the reviewer referees, the editorial board, the journal secretariat and our readers who examined our journal and reached us via e-mail. In this issue of <u>OJER</u> of Fall 2024, 9 studies are presented, as introduced below:

The 1st article of this issue is entitled "What the Distance Education Themed Master's Theses and Dissertations in Türkiye Examined Prior to Covid-19 Pandemic" written by Emrah ORAKÇIOĞLU and Cavide DEMİRCİ. This research aims to evaluate and compare the research tendencies of the theses and dissertations published in Türkiye prior to the Covid-19 pandemic between 2013 and 2018 in the field of distance education in terms of thematic research fields, methodological preferences and the components that scientific researches should include. The results suggest the most popular theme among researches is web-based distance learning, most preferred designs are quantitative and qualitative, respectively. Top universities publishing doctoral dissertations in the field are the Universities of Anadolu and Ankara while Gazi University ranks first in master's theses. It was found out dissertations and theses generally have the basic components of a scientific research. The quantitative studies were designed in survey model while qualitative studies focused on case studies. The most commonly used sampling method is purposeful sampling in the case of both research models. It is recommended that more doctoral dissertations could be carried out in the field of distance education and future studies may include not only the studies that the term of distance education exists in the title but also others carried out in the field.

The 2nd article of this issue is entitled "The Relationship between Conflict Management Styles of School Principals and Teachers' Cynicism Levels" written by Merve YILMAZ and Ali İlker GÜMÜŞELİ. This research aims is to determine the relationship between the conflict management styles of school principals and the organizational cynicism levels of teachers according to the perceptions of teachers. Relational screening model was used in the research. The universe of the study consists of 1150 teachers working in Maltepe district of Istanbul in the 2021-2022 academic year. The sample was composed of 288 teachers. It was determined that the organizational cynicism levels of the teachers were at the "intermediate level". As a result, a weak negative significant correlation was revealed between the conflict management styles of school principals and the organizational cynicism levels of teachers. In the context of conflict management styles, a moderately negative significant relationship emerged between integrating style and organizational cynicism, a moderately positive relationship with dominating style, and a weakly negative relationship with compromising style and organizational cynicism.

The 3rd article of this issue is entitled "The Role of Learning Organization and Talent Management in the Effect of The Transformational Leadership Styles of School Principals in Innovation Management in their Schools" written by Yasin HİÇYILMAZ and Semiha SAHIN. This research aims to examine the mediating role of learning organization and talent management in the impact of transformational leadership levels of school principals on innovation management according to the perceptions of teachers working in vocational and technical anatolian high schools. The sample consisted of 30 official vocational and technical anatolian high school principals and 562 teachers. The data were collected with The Scale of Leadership Styles of School Principals, The Scale of Talent Management in Education, The Scale of Learning Organization in Schools and The Scale of Innovation Management in Schools. The findings showed that there is a significant relationship between the transformational leadership styles of school principals and innovation management according to teacher perceptions, and that there is a partial mediating role of learning organization and talent management in this relationship. It can be concluded that school principals with a high level of transformational leadership will exhibit a higher level of innovation management characteristics in their schools with teachers with a high level of learning organization and talent management.

The 4th article of this issue is entitled "Depiction of the Relationship between Man and Nature In the 9th Grade Geography Textbook" written by Aysun HAJİBAYLİ and Leyla DÖNMEZ. This research aims to investigate how the relationship between human and nature is handled in the 9th grade geography textbook, which was used for 5 years starting from the 2019-2020 academic year. The data obtained through document analysis were subjected to descriptive analysis. As a result of the research, it was found that while the effects of nature on human beings in the textbook were generally described with negative expressions, the effects of human beings on nature were described both positively and negatively.

The 5th article of this issue is entitled "The Relationship between 9th Grade Students' Symbol Sense Behaviors, Algebraic Thinking Skills and Academic Achievement: A Case Study" written by Tuğba TAT and Pınar ANAPA SABAN. This research aims to investigate the relationship between 9th grade students' symbol sense behaviors, algebraic thinking skills and academic achievement. A total of 3 students from a high school constituted the study group. Considering the opinions of the mathematics teacher and the academic

achievement levels of the students in the mathematics course, one student from each achievement level was selected as low, medium and high academic achievement level. The data were acquired from five research inquiries in the literature and adapted in line accordance with expert perspectives. As a result, students' algebraic thinking skills and symbol sense behaviors were found to be compatible with their academic achievement levels. In addition, it was concluded that there was a positive relationship between algebraic thinking skills and symbol sense behaviors.

The 6th article of this issue is entitled "Adaptation Study of the Ecological Literacy Scale for Middle School Students" written by Kevser ARSLAN and Ash GÖRGÜLÜ ARI. This research aims to adapt the Ecological Literacy Scale developed by Ha, Huang, Zhang, and Dong (2021) into Turkish and conduct validity and reliability analyses. The scale, after a pilot application, was administered to 515 middle school students from different grade levels who were identified as the study group. As a result of the study, a 5-point likert type "Ecological Literacy Scale" consisting of 5 factors and 30 items was adapted into Turkish. The adapted Ecological Literacy Scale was found to be a valid and reliable tool suitable for middle school students. A measurement tool that researchers and educators can benefit from has been added to the literature.

The 7th article of this issue is entitled "Teachers' Opinions on the Teaching Skills of Primary Teacher Candidates" written by İpek YILMAZ and Hilmi DEMİRAL. This research aims to determine the opinions of primary school teachers regarding the teaching skills of teacher candidates taking the teaching practice course. The opinions of 3 primary teachers working in a primary school were examined. The primary teachers who participated in the research were educators with at least 25 years of experience in their profession. The interviews lasted 1 hour and 50 minutes in total. According to the research findings, the problems of primary teachers working in a primary school were gathered under the themes of "subject field knowledge, field education knowledge, planning, classroom management and communication".

The 8th article of this issue is entitled "Implementing Mathematical Modelling with Calculus of Variations to Design a Disaster Tent" written by Fatma ASLAN TUTAK and Ozan GÜVEN. This research aims to share results from a mathematical modelling project developed by a mathematics educator and a high school student to solve a real-life problem; durable disaster tents. The authors worked together to first design a tent, CaTent, by

implementing biomimicry with design thinking. Through the process of mathematical modelling, the authors mathematise the problem with catenary which can be obtained by solving a calculus of variations problem. Then, reaching the equation for catenary curve modelling the poles of CaTent, the length of a pole is obtained, approximately 7.2834 meters. The total length of three poles necessary for a CaTent would be 21.8503 meters approximately, while the total amount of poles needed for a common disaster tent would be approximately 40.32 meters.

The 9th article of this issue is entitled "Art Education in Türkiye During the Republican Period (1938-1950)" written by Mehmet KARAOĞLU and Nadir YURTOĞLU. This research aims to investigate the studies carried out on art education in Türkiye during the period from 1938 to 1950 when İsmet İnönü was the President. Under the main title of Art Education in the I. İnönü Period (1938-1950), this article focuses on decisions on art education in National Education Councils (1928-1949), Art Education in Curricula (1938-1950), Art Education in Primary School Curricula, Art Education in Secondary School Curricula, Village Institutes Curricula and Art Education. During the Presidency of Ismet İnönü (1938-1950), the reforms and structures implemented in education, the national education councils conducted, and the reports prepared by foreign experts who were invited to Türkiye by the Ministry of National Education for their recommendations on art education formed the basis of this research. In addition, the curriculum programs of primary and secondary schools and Village Institutes are also included in the article's subject. Related documents from the Presidential Archive of the Republic, Official Gazette, minutes and law journals of the Grand National Assembly of Türkiye, various magazines, newspapers, books, and articles from periodical publications were used to collect data which were analyzed using the document analysis method.

See you in the next year and next issue...
"Stay with science, stay with us"

M. Zafer BALBAĞ, Ph.D. Editor In Chief

Director of Institute of Education Eskişehir Osmangazi University, Türkiye