

ISRIS

2ND INTERNATIONAL CONGRESS OF
INTEGRATED SOCIAL RESEARCH AND
INTERDISCIPLINARY STUDIES

ABSTRACT BOOK



MAY 30-31, 2025



PRAGUE, CZECHIA

ISRIS.ORG



CHARLES
UNIVERSITY



ORDU
ÜNİVERSİTESİ

**International Congress of Integrated Social Research and
Interdisciplinary Studies
(ISRIS 2025)**

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ISRIS 2025

Preface

The International Congress of Integrated Social Research and Interdisciplinary Studies (ISRIS 2025), organized under the leadership of Ordu University Institute of Social Sciences and hosted by the Faculty of Education at Charles University—one of the most prestigious academic institutions in the Czech Republic—was successfully held in Prague on May 30–31, 2025.



ISRIS 2025 brought together scholars from the social sciences, educational sciences, fine arts, natural sciences, sports sciences, and related disciplines, providing an essential platform for interdisciplinary knowledge exchange and academic collaboration. The congress, conducted in a hybrid format, featured the presentation of **92 papers in person** and **52 papers online**, totaling **144 scholarly contributions**.

Academics, researchers, postgraduate students, and K–12 educators and administrators from Turkey, Europe, and Asia actively participated in the congress. The interdisciplinary framework enabled participants to explore contemporary social issues through diverse academic lenses, leading to the development of innovative and collaborative solutions.

The scientific program was enriched by keynote speeches from esteemed scholars in the field.

- **Dr. Antonín Jančařík** (Charles University, Czechia) addressed “Teaching the Teachers of Tomorrow”, offering insights into teacher education in the digital age.
- **Dr. Rhian Webb** (University of South Wales, UK) delivered an engaging talk titled “Pandora’s Box Has Been Opened: AI in ELT”, exploring ethical and pedagogical considerations in the age of artificial intelligence.
- **Dr. Luis Javier Pentón Herrera** (The University of Economics and Human Sciences, Poland) presented “Language Teachers and the Digital World”, emphasizing adaptation strategies for educators in rapidly evolving technological contexts.

In addition to the academic content, the congress hosted cultural performances, including solo recitals and traditional music shows, reflecting our commitment to fostering both intellectual and cultural exchange.

One of the defining features of ISRIS 2025 was its success in bridging the gap between theory and practice—encouraging research that is not only rigorous but also impactful in real-world settings.

I extend my sincere gratitude to all contributors, keynote speakers, artists, and members of the organizing committee for their invaluable efforts. It is our hope that ISRIS 2025 has laid the foundation for new collaborations and research that will continue to inspire and expand the frontiers of scientific inquiry.

Let us continue to build a more integrated and truly interdisciplinary academic future—together.

Assoc. Prof. Dr. Süleyman Erkam SULAK
Congress Chair

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CONGRESS OVERVIEW AND HIGHLIGHTS

The ISRIS Congress will be held in a hybrid format, offering both online and on-site participation options. ISRIS aims to foster knowledge sharing and interdisciplinary collaboration among scholars, industry professionals, and students. The congress provides a dynamic platform to exchange innovative ideas, present cutting-edge research, and disseminate the latest developments in academia and industry.

The congress thematically encompasses the social sciences, educational sciences, fine arts, literature, and a variety of academic disciplines related to the fields of economics and administrative sciences. A total of 92 on-site and 52 online paper presentations will be delivered throughout the event.

The on-site sessions of the congress will be held across four designated halls, providing a vibrant setting for scholarly interaction and engagement.

The congress program will feature three keynote speeches and three musical performances. The keynote speakers are:

- Dr. Luis Javier Pentón Herrera (The University of Economics and Human Sciences), *"Language Teachers and the Digital World"*
- Dr. Antonín Jančařík (Charles University), *"Teaching the Teachers of Tomorrow"*
- Dr. Rhian Webb (University of South Wales), *"Pandora's Box Has Been Opened: AI in ELT"*

The artistic program will include:

- A solo flute recital by Assoc. Prof. Bahar Sarıboğa Akca
- A solo baglama recital by Assist. Prof. Ahmet Serdar Yener
- A Turkish tango and waltz performance by Assoc. Prof. Bahar Sarıboğa Akca and Assist. Prof. Yusuf Çetinkaya

All performances will be held at the Faculty of Education, Charles University, Prague, Czechia.

Following a rigorous peer-review process, accepted papers will be considered for publication in a range of academic journals. Special issues will be published in:

- Journal of Social Sciences Research of Ordu University (Indexed in TR Index)
- Education Mind (Indexed in EBSCO H. W. Wilson)

Additional publication opportunities include:

- Ordu University Journal of the Faculty of Education
- Pedagogical Perspective (PedPer) (Indexed in EBSCO H. W. Wilson)
- Emerging Learning Technologies
- Cappadocia Journal of Education (KAPED) (Indexed in EBSCO H. W. Wilson)
- Cappadocia Journal of History and Social Science

ANTIMICROBIAL ACTIVITY OF JUNIPERUS COMMUNIS FRUIT ESSENTIAL OIL

ELİF ÇİL, ORDU UNIVERSITY, ORDU, TURKIYE

The genus *Juniperus* is represented by seven species, various subspecies, and varieties naturally distributed in Turkey. *Juniperus communis*, or ardiç in Turkish, is one of the most preferred plant species in pharmacology and aroma therapy for its essential oil. This study used the steam distillation method, generally preferred in producing commercially available essential oils. This study aims to determine the antimicrobial properties of the *Juniperus communis* fruit essential oil using different screening methods. The Kirby–Bauer disc diffusion method, Minimum inhibitory concentration (MIC), and Minimum bactericidal/fungicidal concentration (MBC/MFC) determination methods were preferred for the antimicrobial activity study. The experiments were conducted on twenty pathogenic bacteria and a yeast obtained from culture collections. The highest and the lowest concentrations tested were 2.5 and 0.15 µL/mL. *Salmonella enterica* subsp. *Enterica* ATCC14028, *Escherichia coli* ATCC® 25922, and *Enterococcus faecalis* are resistant to *Juniperus communis* fruit essential oil, while *Micrococcus luteus* NRRL B-1018^T and *Candida albicans* ATCC®10231 are sensitive.

Steam distillation, Kirby–Bauer disc diffusion method, minimum inhibitory concentration

MIND MAPS IN TEACHING SOCIOSCIENTIFIC ISSUES

H. GAMZE HASTÜRK, TOKAT GAZIOSMANPASA UNIVERSITY, TOKAT, TURKIYE

GÖKHAN HASTÜRK, MINISTRY OF NATIONAL EDUCATION, TOKAT, TURKIYE

Socioscientific issues represent an interdisciplinary field that emerges at the intersection of social sciences and science. Socioscientific issues consist of complex and contradictory topics that are open to debate, involve dilemmas, and can be analyzed from multiple perspectives. In this context, euthanasia, nuclear power plants, artificial intelligence, stem cells, cloning, global warming, nanotechnology, genetically modified organisms and organ transplantation are considered as socio-scientific issues. This discipline combines the methods and approaches of both social sciences such as sociology and psychology and natural sciences such as biology, chemistry and neuroscience to understand social structures, behaviors and relationships. Teaching socioscientific topics provides many opportunities for students to gain a deeper understanding of the dynamic relationships between science and society. Teaching socioscientific issues develops individuals' abilities to evaluate, criticize and find solutions to social problems, while at the same time enabling them to gain a broader perspective on human behavior and social structure. Therefore, teaching socioscientific issues in educational environments plays an important role in ensuring the development of 21st century skills in students. Based on the stated characteristics, the problem statement of the research was determined as "What are the steps of preparation and application of mind maps techniques in teaching socioscientific issues and what are the students' views on these techniques?". The study group of the research consists of 25 pre-service primary school teachers working in a city center in the Central Black Sea region in the 2024-2025 academic year. As a result of the study, the preparation and development steps of the "mind map" techniques, which are among the techniques used in the teaching of socioscientific issues, were included and the teachers' opinions on the use of the techniques were analyzed. In the light of the findings obtained, it was concluded that the "mind map" technique is effective in understanding and associating the nature of SSI, and that it is effective in establishing relationships between concepts and providing meaningful learning.

Socioscientific issues, pre-service teachers, mind map

DILEMMA CARDS IN TEACHING SOCIOSCIENTIFIC ISSUES

GÖKHAN HASTÜRK, MINISTRY OF NATIONAL EDUCATION, TOKAT, TURKIYE

H. GAMZE HASTÜRK, TOKAT GAZIOSMANPASA UNIVERSITY, TOKAT, TURKIYE

Socioscientific issues (SSIs) are controversial issues that require individuals to evaluate scientific knowledge with social, ethical and environmental dimensions. This study was conducted with 30 pre-service teachers studying in a classroom teaching program at a university in the Central Black Sea region. The aim of the study was to improve future pre-service teachers' ability to learn SSI and to support students' critical thinking, decision-making and argumentation skills. Within the scope of the study, current and controversial issues such as artificial intelligence, genetic engineering, renewable energy, environmental pollution, vaccination and animal experiments were addressed. Students were asked to prepare and present dilemma cards related to the identified SSI. During the presentation, an environment of interaction and discussion was created in the classroom. In the discussions, students were encouraged to evaluate ethical and social aspects using scientific data. At the end of the process, it was observed that students' awareness of SSI increased, their understanding of different perspectives improved, and their ability to associate scientific knowledge with daily life was strengthened. The findings show that dilemma cards are an effective tool in teaching SSI and make a significant contribution to increasing the pedagogical competencies of pre-service teachers. In this context, it is recommended that the use of interactive and critical thinking supportive methods such as dilemma cards in teaching SSI should be expanded.

Socioscientific issues, dilemma cards, critical thinking, classroom teaching, argumentation

THE EFFECT OF PHILOSOPHY FOR CHILDREN (P4C) PROGRAM ON LANGUAGE SKILLS: A META-ANALYSIS STUDY

SELVANUR KAYHAN, TRABZON UNIVERSITY, TRABZON, TURKIYE

NURBANU KANSIZOĞLU, TRABZON UNIVERSITY, TRABZON, TURKIYE

The aim of this study is to investigate the effect of the Philosophy for Children (P4C) program on language skills through meta-analysis. Studies examining the impact of the P4C program on listening, reading, speaking, and writing skills were searched across various databases (e.g., ERIC, ScienceDirect, Taylor & Francis) using different keyword patterns. After applying inclusion and exclusion criteria, the current meta-analysis included 10 intervention studies ($k = 11$) that implemented P4C-based interventions to enhance students' language skills. All statistical data were collected and then transferred to the Comprehensive Meta-Analysis (CMA) software to calculate Hedges' g values. The overall effect size of the intervention studies on language skills was determined to be 0.935. This effect size indicates a large impact. Additionally, language skills categorized as receptive and productive were identified as moderator variables. The findings indicate that the type of language skill significantly moderates the effectiveness of the P4C intervention. However, the intervention duration, which was identified as another moderator variable, was found to have no significant effect on language skills. In light of the findings, it can be concluded that P4C-based interventions are highly effective in improving students' language skills. Accordingly, it is recommended that P4C practices be systematically integrated into educational programs. Encouraging the formation of more inquiry-based communities in educational settings can help students develop their ability to express their thoughts and understand different perspectives.

Philosophy for children, language skills, meta-analysis

BEYOND ANXIETY: EXPLORING THE ROLE OF SHAME IN MATHEMATICAL IDENTITY

SANIYE NUR ERGAN, ORDU UNIVERSITY, ORDU, TURKIYE

In the realm of mathematics education, emotions like anxiety have been widely studied; however, shame and guilt are often overlooked. This paper argues for the equal significance of shame and guilt in shaping students' mathematical identities and experiences, highlighting how these emotions influence their learning processes. Drawing on Önderman's (2020) sociocultural perspective, we explore the distinction between shame, linked to external judgment, and guilt, arising from internalized standards, as they manifest in the mathematics classroom. Shame, particularly in collectivist cultures, often arises from the fear of public judgment and affects students' emotional experiences and academic performance. Guilt, on the other hand, emerges from personal self-evaluation and can sometimes motivate students to improve their performance. The findings of this study suggest that the social dynamics within mathematics classrooms, including peer interactions and institutional practices like grading, significantly influence how students experience these emotions. By broadening the emotional framework in mathematics education to include shame and guilt alongside anxiety, the paper offers a more nuanced understanding of the affective factors that shape mathematical identities. This comprehensive approach can provide valuable insights for educators, emphasizing the need for pedagogical practices that recognize the cultural and social underpinnings of these emotions. By fostering a classroom environment where mistakes are seen as learning opportunities and emotions are acknowledged, educators can create a more supportive and inclusive learning atmosphere.

Mathematical identity, guilt, cultural contexts, educational sociology

PRE-SERVICE ELEMENTARY TEACHERS' PERSPECTIVES ON CLASSROOM PRACTICES IN LIFE STUDIES TEACHING

SEVİM GÜVEN, TOKAT GAZIOSMANPASA UNIVERSITY, TOKAT, TURKIYE

Teaching is a profession that requires individuals to possess various competencies and skills. One of the most crucial processes in acquiring professional skills is integrating theoretical and practical instruction in a holistic manner during undergraduate education. Practical training related to teaching applications plays a significant role in developing teaching competencies. Therefore, the aim of this study is to determine the perspectives of pre-service elementary teachers regarding classroom practices in the Life Studies Teaching course. This research is significant as it is based on the assumption that the skills acquired by pre-service teachers in teaching Life Studies, which is an essential component of identity construction at the primary school level, will contribute to enriching the teaching-learning process when they enter the profession.

The research design is classified as action research, considering the research questions, data collection process, and analysis methods employed. The study was conducted with third-year pre-service elementary teachers enrolled in the Life Studies Teaching course within the Department of Elementary Education at a public university. The participants were selected through a purposive sampling method.

In the first phase of the study, an open-ended questionnaire consisting of three questions was administered to identify participants' expectations regarding the Life Studies Teaching course. During the 14-week instructional period, the first nine weeks involved the concurrent implementation of theoretical and practical applications, while microteaching sessions commenced from the tenth week onward. Prior to the microteaching sessions, pre-service teachers were provided with theoretical knowledge on lesson planning, designing worksheets, and selecting appropriate teaching methods and techniques. Subsequently, each pre-service teacher was assigned a specific learning outcome from the Life Studies Teaching Program and was required to prepare a corresponding lesson plan and worksheet.

Based on the prepared lesson plan, each pre-service teacher was expected to conduct a 10-minute teaching-learning activity, which was recorded on video. During the implementation process, pre-service teachers were evaluated using an observation form developed by the instructor. In the final stage, following the completion of the microteaching sessions, a Post-Pre open-ended questionnaire was administered to all participants. The research data were analyzed using the content analysis method. The findings revealed that participants expected the instructional process to be engaging and practice-oriented. Additionally, an evaluation of pre-service teachers' reflections on the microteaching experience indicated improvements in lesson planning skills, classroom management skills, material preparation, and the effective use of teaching methods and techniques.

Life studies teaching, teacher education, microteaching, action research

PROVERBS WITH TRANSFER CLAUSES IN TURKEY TURKISH

SALİM KÜÇÜK, ORDU UNIVERSITY, ORDU, TURKIYE

In a complex clause that contains an interior clause, the interior clause contains at least one element that is conjugated as a noun or verb. The interior clauses, which are connected to the external clause with the verb “to say” or the preposition “diye”, also have the feature of a transfer sentence with their use in this structure. The structures in which the transfer sentence, that is, the interior clause, which is included in quotation marks in the external clause, is expressed directly by the speaker without being changed by the speaker, are called direct speech clauses. Direct speech sentences are used not only in written language but also in proverbs, which are important elements of spoken language. It is seen that one, two and four direct speech sentences are generally used in these uses of complex clauses, hypotaxis compound clauses and sequential sentences. Unlike sentences with intermediate verbal and intermediate clauses, in direct speech sentences, transfer sentences directly contribute to the organization of the sentence. In direct speech clauses, the expression is made by transferring directly without any intervention, while in indirect speech clauses, the technique of forming sentences by using verbals in predicates has been developed. In proverbs that prefer short and concise expression, it is seen that in direct speech clauses, there are sometimes sentences with omissions, the suffix-verb is dropped, or these suffixes or words are not written in accordance with the law of minimum effort in language. In this study, which aims to examine and evaluate the direct speech clauses in the proverbs in the books titled “Dictionary of Turkish Proverbs” and “Proverbs and Idioms in Regional Dialects” published by the Turkish Language Association according to the number of the speech clauses, the structure of the sentence, the structure of the proverb with speech clauses, and the way the speech clause is connected to the verb “demek”, the way it is connected to the predicate, this study also focuses on the small speech clauses. Accordingly, the transferred element in transfer clauses in Turkish includes not only the sentence but also the structures smaller than the sentence, such as word groups, exclamation and onomatopoeic words.

Turkish, proverb, transfer clauses, vocabulary

ANALYSING CONSUMER COMPLAINTS ON THE CURRENCY-PROTECTED DEPOSIT SYSTEM USING TOPIC MODELING

HÜSEYİN KOÇAK, ORDU UNIVERSITY, ORDU, TURKIYE

ATAKAN BÜYÜKBOSTANCI, ORDU UNIVERSITY, ORDU, TURKIYE

This study aims to analyse consumer perceptions and complaints regarding the currency-protected deposit system in Türkiye. Utilizing data from the platform of Şikayetvar, 1,181 complaints containing the keyword "currency-protected" and collected on February 20, 2025, were examined. The complaint content was gathered via web scraping making use of R Studio, followed by data cleaning and preprocessing. Frequently occurring bigram and trigram collocations were identified to reveal prevalent issues within the complaints. In the method of the study, Non-negative Matrix Factorization (NMF) topic modelling was used via the Python programming language, and with this method, the ideal topic numbers were determined by calculating the consistency coefficients, and the topics were named based on the keywords belonging to each topic. Subsequently, topics were labelled according to their most representative keywords. The analysis sheds light on the primary themes of the complaints and the focal points of consumer dissatisfaction, providing practical insights into the functioning of the system. The findings illustrate consumer experiences during the implementation of the currency-protected deposit system and validate the effectiveness of NMF as a method for text-based complaint analysis. This study aims to contribute to the literature by providing data-driven insights to policymakers for addressing challenges arising from the implementation of financial products.

Currency- protected, web scraping, topic modelling

THE FUTURE OF PUBLIC GOVERNANCE: TRANSITION FROM E-GOVERNMENT TO A-GOVERNMENT: A COMPARATIVE ANALYSIS OF TURKEY AND ESTONIA

TUĞBA DAMGACI, SELCUK UNIVERSITY, KONYA, TURKIYE

Artificial intelligence (AI) is increasingly becoming a crucial component in public administration, enabling governments to enhance service delivery efficiency, transparency, and effectiveness. AI-driven digital governance models offer impactful solutions across various domains, from policy-making to citizen services. This study compares the AI-supported public administration strategies of Turkey and Estonia, analyzing their similarities and differences in AI implementation. Turkey has made significant progress in integrating AI into public services, particularly in security and education. However, challenges such as regulatory gaps, infrastructural limitations, and a shortage of AI professionals restrict its full potential. In contrast, Estonia's centralized and integrated digital infrastructure allows for more effective AI-driven governance applications. This study evaluates AI policies in both countries and provides policy recommendations for improving AI integration in public administration. The findings emphasize that robust digital infrastructure, ethical regulations, and citizen engagement are essential factors for the success of AI-powered governance.

Artificial Intelligence, digital governance, public administration, Turkey, Estonia

INTEGRATING DRAMA INTO NATURE OF SCIENCE TEACHING: AN INSTRUCTIONAL DESIGN BASED ON FRA

DEMET SAHİN KALYON, TOKAT GAZİOSMANPAŞA UNIVERSITY, TOKAT, TÜRKİYE

ZOUBEIDA R. DAGHER, UNIVERSITY OF DELAWARE, NEWARK, DELAWARE, USA

This study introduces the Drama-Enriched NOS Instructional Design, aimed at enhancing pre-service primary teachers' (PST') understanding of the nature of science (NOS) and acquiring effective teaching methods. This design utilizes drama as a powerful tool for effectively conveying NOS to PSTs. By integrating Erduran and Dagher's (2014) Family Resemblance Approach (FRA) to NOS with drama, the framework emphasizes science's cognitive, epistemic, and social-institutional dimensions. The design includes five drama plans covering FRA components. The explicit-reflective approach guides teachers in exploring NOS concepts, encouraging discussion and reflection on their experiences. Through improvisation, PSTs gain insights into scientific processes, fostering a comprehensive understanding of how scientific knowledge is constructed and validated within societal contexts. Over 10 weeks, PST participates in drama sessions, developing lesson plans to incorporate NOS in elementary science classes. This process can help them cultivate a nuanced view of science, preparing them to teach NOS more effectively. The integration of drama and FRA offers a holistic approach to teaching science, aiming to develop educators who can convey its dynamic and socially embedded nature to their students. The instructional sequence developed in this study opens opportunities to refine it further and evaluate its impact on PST's understanding of the NOS.

Nature of Science, FRA, pre-service primary teachers

INSTITUTIONAL ANALYSIS OF THE EUROPEAN UNION MIGRATION GOVERNANCE POLICY IN THE CONTEXT OF THE EUROPEAN UNION (EU) COMMITTEE OF THE REGIONS

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European cities are becoming more diverse as immigrants from all over the world settle. This situation is considered a threat for some European cities and an opportunity for some European cities. In order for both situations to be managed in a healthy way without disrupting social peace, the policies and support of the central governments alone are not sufficient. There is a need for coordinated cooperation between the central governments and local governments. There is a need for effective processes that include local governments in decision-making mechanisms. In this sense, European local governments are trying to take steps on the basis of the governance model in managing social cohesion on migration and immigrant issues, ensuring equal opportunities for all citizens and supporting positive values such as diversity and participation. In the EU, the unit that keeps alive these administrative gaps between the local administrations of the national government and the Union rules is the European Union (EU) Committee of the Regions (CoR). The Committee was established in 1994 to ensure the active participation of local and regional actors in the decision-making process in the EU. The European Council and the Commission must seek the opinion of the Committee of the Regions when taking decisions on issues that directly concern local and regional authorities (economic and social integration, education, public health, employment policy, social policy, culture, environment). The Citizenship, Governance, Institutional and External Relations Commission (CIVEX) of the Committee of the Regions carries out activities on immigration, integration and active citizenship. The Cities and Regions for Integration Initiative within this Commission provides a platform for European mayors to showcase positive examples of the profiles of migrants and refugees. In this context, this presentation will explain how migration governance is achieved at the EU level and what the concrete practices are in this regard. In this context, this paper will also present concrete examples of how solidarity between EU institutions has been developed

European Union, governance, local government, migration, immigration, policy implementation

BARRIERS TO INTERCULTURAL COMMUNICATION: WHAT DO PROSPECTIVE TEACHERS THINK?

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In today's increasingly complex and diverse world, teachers are expected to navigate multilingual and multicultural classrooms where effective intercultural communication is essential for fostering inclusive learning environments. Therefore, without developing intercultural competencies and recognizing the barriers to intercultural communication, prospective teachers may inadvertently reinforce biases, misunderstandings, and exclusion once they enter the profession. Yet, despite its significance, interculturality remains underemphasized in many teacher education programs, leaving future educators unprepared to navigate diverse classrooms. To address this gap, I designed and offered an elective course on language and intercultural communication for a group of prospective teachers. In this course, I introduced key concepts related to language, culture, and communication, encouraging the prospective teachers to critically reflect on their roles as educators in diverse classrooms. At the end of the course, I conducted a focus group discussion to explore their perceptions of intercultural communication barriers and the strategies they proposed to overcome them. Through thematic analysis, I revealed several barriers, including language proficiency gaps, prejudices, othering, ethnocentrism, stereotypes, discrimination, and racism. Participants also highlighted the importance of critical reflection, cultural awareness, and inclusive pedagogical practices in addressing these barriers. Recognizing and addressing these barriers is essential not only for the study participants but also for prospective teachers in other teacher education programs. By integrating these discussions into comparable teacher education contexts, institutions can better prepare future educators to navigate diverse classrooms. In doing so, teachers can create learning environments that not only accommodate but actively value cultural and linguistic diversity.

Teacher education, intercultural education, intercultural communication, intercultural competence

ENHANCING PRE-SERVICE TEACHERS' QUESTION PREPARATION SKILLS FOR HIGHER ORDER THINKING SKILLS IN READING EDUCATION: AN ACTION RESEARCH

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Students often have difficulty in generating HOT questions during reading instruction. A teacher who aims to make students critical readers should compare them with examples of good questions. To do this, teachers should first be able to ask good questions themselves. This study examined how Turkish pre-service teachers' higher-order thinking question preparation skills can be improved through instructional practices designed to encourage the development of higher-order thinking questions.

The study employed a collaborative action research method, utilizing mixed methods such as a single-group pre-test and post-test design alongside a case study. An 8-week action plan was implemented that included both a pre-test and a post-test. The study group comprised 15 third-year Turkish pre-service teachers from a university, selected through purposive sampling. Data were gathered through researcher and student diaries, pre-interview forms, student products, and evaluation forms and were analysed using Cochran's Q test and content analysis.

The results revealed that pre-service teachers generally prepared basic questions at a descriptive level at the start of the study and had limited knowledge of relating the questions to higher-order thinking (HOT). However, after the training, there was a significant improvement in question preparation skills across interpretation, inference, explanation, hypothesis, and evaluation criteria. The positive contributions of conceptual knowledge, scaffolding, self-assessment, feedback, and peer assessment included in the research procedure were notable in the development of the pre-service teachers. Consequently, the study concluded that Turkish pre-service teachers required explicit teaching to enhance their HOT questioning skills.

Reading education, HOT questions, pre-service teachers, teacher education

AN EXAMINATION OF THE RELATIONSHIP BETWEEN PRE-SERVICE TEACHERS' PERSONALITY TRAITS AND THEIR STEM AWARENESS

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This study aims to examine the relationship between pre-service teachers' personality traits and their awareness of STEM (Science, Technology, Engineering, and Mathematics). The study will be conducted using a correlational survey design within the scope of the quantitative research method. The study group will consist of third- and fourth-year pre-service teachers enrolled in the departments of Computer and Instructional Technology Education (CITE), Elementary Mathematics Education, Science Education, and Preschool Education. A sample representing the population will be selected using an appropriate sampling method. As data collection instruments, the "Basic Personality Traits Inventory Developed in Turkish Culture" will be used to determine pre-service teachers' personality traits, while the "STEM Awareness Scale" will be employed to measure their STEM awareness. Additionally, variables such as gender, department of study, prior knowledge of STEM, and whether they have encountered examples of STEM-related practices will be included in the study. The collected data will be analyzed using statistical analysis techniques. Within the scope of the research, the relationship between pre-service teachers' personality traits and their STEM awareness will be examined, and significant differences will be analyzed in the context of various variables. The findings obtained are expected to contribute to teacher education by guiding the development of STEM practices that take individual differences into account. This study will reveal how pre-service teachers' individual characteristics influence their STEM awareness and provide recommendations for improving educational programs.

Pre-service teachers, basic personality traits, STEM awareness

CHALLENGES IN LEARNING OTTOMAN-ORIGIN WORDS IN TEACHING TURKISH AS A FOREIGN LANGUAGE: THE CASE OF TAIWAN

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Teaching Turkish as a foreign language presents various challenges, particularly regarding the acquisition of Ottoman-origin words. This study examines the difficulties faced by learners in Taiwan when acquiring these words, analyzing the linguistic, pedagogical, and cultural barriers and proposing solutions. Many Taiwanese learners of Turkish come from a linguistic background significantly different from Turkish, such as Chinese. This contrast complicates the morphological and phonetic comprehension of Ottoman-origin words. Furthermore, the influence of Arabic and Persian in Ottoman Turkish adds another layer of difficulty in understanding word etymology. Another major challenge is the lack of adequate teaching materials that incorporate Ottoman-origin vocabulary. Since most Turkish language curricula prioritize daily spoken language, the academic and literary use of these words remains underrepresented. Additionally, the limited cultural exposure to Ottoman heritage in Taiwan hinders learners' ability to fully grasp the contextual meanings of these words. This study explores these challenges by focusing on the case of Taiwan, emphasizing the importance of contextual teaching methods and audiovisual materials in overcoming these obstacles. The findings suggest that integrating Ottoman-origin words more effectively into Turkish language education can enhance learners' comprehension and proficiency in the language.

Bilingual Education, Ottoman Turkish, Taiwan, challenges

ANALYSIS OF READING TEXTS IN PRIMARY SCHOOL TURKISH TEXTBOOKS IN TERMS OF READABILITY AND READING DIFFICULTY

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Reading difficulty is one of the major challenges encountered in the educational process. The literature emphasizes that students with reading difficulties, despite having normal intelligence levels, fail to demonstrate the expected level of reading skills. This situation directly affects students' academic success and poses a significant issue in terms of educational equity. This study examines the readability levels of reading texts included in the 3rd and 4th grade Turkish textbooks to support the reading skills of students with reading difficulties. Reading difficulty refers to persistent challenges in fluent and accurate reading, spelling, and comprehension skills. These students particularly struggle to comprehend texts containing long and complex sentence structures. Therefore, determining the readability levels of texts in textbooks is of great importance. In this study, the 3rd and 4th grade Turkish textbooks approved by the Ministry of National Education (MoNE) for the 2024–2025 academic year were analyzed using the document analysis method. The readability levels of the texts were evaluated using the widely recognized readability formulas of Ateşman (1997) and Çetinkaya–Uzun (2010). The obtained data aim to identify whether students with reading difficulties face challenges in reading the texts in Turkish textbooks. The study results will assess the linguistic structure, word choice, and sentence length of the texts in textbooks and discuss their suitability for students with reading difficulties. In this context, recommendations will be provided to contribute to inclusive education policies.

Reading difficulty, readability, Turkish textbooks, primary school

AN EVALUATION OF MASCULINITY THROUGH THE RELATIONSHIPS MEN HAVE WITH THEIR MOTHERS: SONS OF THEIR MOTHERS

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Masculinity is a gender category that encompasses power relations and positions itself within hierarchical power dynamics. The plurality of masculinities is based on the power relations they contain. The relationships between male children and their fathers are shaped by the power that constitutes the social construction of masculinity, which results in a tense relationship between fathers and sons. However, when it comes to motherhood, it is important to understand how this relational dynamic changes in order to grasp the nature of masculinities. In contrast to fatherhood, understanding how masculinity is perceived in the experiences of men within their relationships with their mothers reveals the positioning of masculinities within power relations in their communication with their mothers. In this context, the “power” that reproduces patriarchal domination or hegemonic masculinities exists as a form of authority. The relationship beyond the biological connection between men and their mothers becomes a dynamic in which power struggles do not occur, evolving into a relational form in which masculine culture’s view of women, when it comes to “motherhood,” attributes a “sacredness” that can, when necessary, lead to domination. The relationship between a male child and his mother can transform into a strong bond due to the absence of the anxiety of proving masculinity in this relationship. In this study, when it comes to fatherhood, unresolved conflicting emotions of men are revealed, whereas in the case of motherhood, the situation is the opposite. This is not only due to masculinities not entering into a hierarchical power relationship but also the cultural influence of the socially determined role of femininity on motherhood. The data for this study, which adopts a qualitative research method, is based on interviews conducted with a total of 40 men in Erzurum using a semi-structured questionnaire.

Masculinity, power, hegemony

THE FUNCTION OF THE PARIS CONSERVATORY IN CREATING THE FRENCH FLUTE SCHOOL AND THE INFLUENCE OF THIS SCHOOL IN TURKIYE

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The Paris Conservatory is one of the oldest known schools of music and dance that is continuing education. Founded towards the end of the 18th century, the conservatory pioneered the development of the traditional French school. The conservatory also laid the groundwork for the formation of the French flute school and plays a major role in the international acceptance of French musical culture in terms of the development of technique, repertoire and musical expression in flute education and performance. The most important representative who contributed greatly to laying the foundations of the French flute school and is accepted as its founder is Paul Taffanel, one of the flute teachers at the Paris Conservatory, and later Philippe Gaubert, who was Taffanel's student. Taffanel and Gaubert led the way for many innovations and developments in flute education and performance. One of these is the Morceau Imposé tradition. The Morceau Imposé tradition, meaning compulsory piece, emerged from the practice of students performing pieces that they were required to perform in order to graduate. These are works written by flute teachers of the Paris Conservatory or by French composers, which have not been performed before, and are given to graduating students four weeks in advance to perform in their recitals and are performed in front of a jury of five people, including the composer of the work. This tradition, implemented at the Paris Conservatory, has not only led to the formation of the French flute school but also to a wide musical repertoire in the field of flute. In Turkey, there are flutists and composers who practice this tradition. Also, when the music history of the republic is examined, the first musician to receive training at the Paris Conservatory is Saffet Atabinen, known as the first Turkish flutist and orchestra conductor. Saffet Atabinen contributed to the development of flute education in Turkey by adopting the technical, artistic understanding of flute performance and the pedagogical approach in flute education applied at the Paris Conservatory. After Saffet Atabinen, many musicians in our country received education at the Paris Conservatory. In this study, the Paris Conservatory's contribution to the formation of the foundation in international flute education, as well as the effects of these contributions on flute performance and flute education in Turkey, will be examined historically. This research was conducted using the case study method, one of the qualitative research methods, and data was collected by examining written and visual documents.

Paris Conservatory, flute, French flute school

PARALLELS BETWEEN THE EVOLUTION OF ART AND CHILD DEVELOPMENT FROM THE PERSPECTIVES OF ONTOGENY AND PHYLOGENY

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Significant parallels exist between the developmental stages of art history and the artistic progression of children. For instance, the scribbles of children aged 2–4 (the scribbling stage) bear distinct similarities to the primitive forms found in Paleolithic cave paintings. Similarly, the symbolic figures used in the schematic period (ages 5–7) align with the stylized representations of Ancient Egyptian and Mesopotamian art. Meanwhile, children aged 8–12 in the realism stage demonstrate a quest for perspective that mirrors the innovations of Renaissance art. Adolescence, a transitional phase into young adulthood, reflects modern art's tendency to disrupt traditional norms, as teenagers seek original modes of expression. Furthermore, 21st-century digital technologies add a new dimension to these parallels, influencing both children's creative processes and contemporary artistic practices.

This study posits that children's artistic development parallels the evolutionary stages of art history. Its objective is to systematically analyze these correlations through a comparative lens. The theoretical framework integrates Ernst Haeckel's Ontogeny-Phylogeny Theory (the idea that individual development mirrors species evolution) with Viktor Lowenfeld's model of children's artistic stages. A qualitative document analysis forms the primary methodology, supplemented by experimental approaches to validate findings. Relevant literature from art history, child development, and educational psychology was reviewed. The analysis is expected to demonstrate that the evolution of children's drawing skills parallels humanity's artistic progression. This research aims to provide a novel perspective for art education, highlighting how artistic processes traverse analogous developmental stages at both individual and societal levels.

Art's history evolution, children's artistic development, Ernst Haeckel's Ontogeny-Phylogeny Theory, Viktor Lowenfeld's model of artistic development

GRADUATE STUDENTS' PERSPECTIVES ON THE USE OF ARTIFICIAL INTELLIGENCE

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This study aims to examine in depth the perceptions, attitudes and experiences of graduate students regarding the use of artificial intelligence (AI). Graduate students are increasingly using AI tools in processes such as academic writing, research and data analysis. The study is expected to contribute to the literature in terms of understanding the effects of these tools on students and shedding light on critical issues such as ethics, authenticity and efficiency in the integration of technology into academic processes. The study was designed with basic qualitative research methodology within the framework of qualitative research paradigm. The study group consisted of students who continued their graduate education in the field of classroom teaching and preschool education at Ordu University in the spring semester of 2024-2025 and were selected by convenience sampling, which is one of the purposeful sampling methods. In the data collection process, a semi-structured interview form consisting of seven open-ended questions developed in line with the opinions of field experts was used. In the interviews, themes such as the role of AI in academic studies, ethical concerns, perceptions of advantages and disadvantages, and expectations for the future were discussed.

The data obtained were analyzed by content analysis method and structured through thematic codes. The findings revealed that the participants saw AI as an opportunity in terms of speed of access to information, ease of data analysis, and increasing academic productivity; however, they had concerns about issues such as originality concerns, ethical issues, and diminishing professional competencies. It was also found that there were significant differences between attitudes towards AI in different disciplines. The study emphasizes that student perspectives should be taken into account when developing policies for the integration of AI in graduate education and provides recommendations for both educators and graduate students.

In this context, the study aims to contribute to the debate on the responsible and balanced use of AI in graduate education settings.

Graduate education, artificial intelligence, academic writing

THE EFFECT OF THE THINK-ALOUD STRATEGY ON FOURTH GRADE PRIMARY SCHOOL STUDENTS' READING COMPREHENSION AND SUMMARY WRITING SKILLS

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This study aims to examine the effect of the think-aloud strategy on the reading comprehension and summarization skills of fourth-grade primary school students. The research was conducted using a quasi-experimental pre-test-post-test control group design. The study group consisted of 40 fourth-grade students from a public primary school in Ordu, Türkiye.

An eight-week instructional program based on the think-aloud strategy was implemented. This strategy makes students' cognitive processes visible while reading, enhancing their comprehension and summarization skills. The experimental group received think-aloud strategy instruction for two hours per week, while the control group followed the national curriculum with their classroom teacher.

To assess reading comprehension skills, two tests were used: *Edison Discovers the Light Bulb* by Sulak (2014) as the pre-test, and *It All Started with a Kite* by Sönmez (2017) as the post-test. Both tests included ten questions: five multiple-choice and five open-ended. Summarization skills were assessed using the *Summary Assessment Rubric for Informative Texts* developed by Bulut (2013).

Data analysis was conducted using SPSS software and parametric tests. The findings revealed significant differences in favor of the experimental group in both reading comprehension and summarization skills before and after the intervention. These results indicate that the think-aloud strategy is an effective method for improving primary school students' reading comprehension and summarization skill.

Reading, reading comprehension, think-aloud strategy, summary writing skills

BREATHING TECHNIQUES AND APPLICATIONS IN FLUTE

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The flute is one of the oldest instruments known to have been used in various activities by societies throughout history. It reached its modern form with Theobald Boehm and has begun to be used in the performance of different musical genres today. The changes it has undergone from past to present have increased the need for breathing techniques and practices in the instrument. In order to learn to play the flute, you must know where to breathe and the exercises should become a habit over time. In flute playing training, achieving musical expression is possible by recognizing the characteristics of the instrument and using the correct technique. Flute playing techniques include correct posture, use of breath, and use of tongue. The basis for obtaining a multitude of colors, nuances and timbres is related to correct breathing and the speed of the air blown into the flute. When all of these are not applied correctly, with insufficient or incorrect use of breath, clear sounds cannot be obtained and a beautiful and effective tone cannot be achieved. While playing the flute, it is important to take quick and deep breaths by using the lower jaw and keeping the throat open while the lips are in a relaxed position. It is important for the player to understand the breathing technique, which is the basis of flute playing, both theoretically and practically. While playing the flute, much more breath capacity is required than that used in daily life. It is known that a flutist whose breathing capacity is not developed has a short blowing time and has difficulty playing long musical phrases. It is believed that breathing technique also affects the tone quality produced by the flute and in this context, the breathing technique should be taught correctly to the flutist. The study includes daily studies on the use of breath and its applications in the flute. Inhalation, exhalation, holding the flute correctly, breathing exercises and auxiliary apparatus used to develop breath use were examined. The study was conducted using the descriptive method, one of the qualitative research methods, and documents were examined and written and visual sources in the literature were scanned and collected.

Flute, breathing techniques, breathing training devices

PRESCHOOL TEACHERS' VIEWS ON BEHAVIOR PROBLEMS AND THE STRATEGIES THEY USE

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In the preschool period, it is crucial for children's development that they can establish healthy relationships with others, control their emotions, and express themselves. Children who experience difficulties in this process may exhibit problematic behaviors that negatively affect their learning processes and social relationships. These behaviors not only adversely affect the student's entire educational process but also create negative impacts on other students' educational processes by making classroom harmony more difficult. In this context, preschool teachers' experiences regarding this process and their strategies for coping with problem behaviors gain importance.

The main purpose of this research is to determine preschool teachers' views on problem behaviors and their strategies for coping with these behaviors. Within the scope of the research, teachers' views on problem behaviors, the most frequent behavioral problems they encounter in their classrooms, and the strategies they use against these problems will be examined. The study group of the research, which will be conducted using a case study design from qualitative research designs, will consist of 30 preschool teachers working in Ordu province. Participants will be determined through convenience sampling method, and data will be collected through semi-structured interview forms and analyzed using content analysis method. As a result of the research, preschool teachers' views on problem behaviors, the most frequent problem behaviors they encounter in their classrooms, and the strategies they use for these behaviors will be identified. The findings will be discussed in light of the literature, and various recommendations will be presented to relevant groups.

Preschool period, problem behaviours, teacher opinions

THE ROLE OF MANAGEMENT AND ORGANIZATIONAL STRATEGIES IN STRENGTHENING THE STRUGGLE CAPACITY OF LABOR UNIONS

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Labor unions play a crucial role in ensuring fairness and sustainability within the working life. However, the struggle capacity and organizational effectiveness of labor unions have weakened significantly due to globalization, flexible working conditions, and economic uncertainties. These emerging challenges necessitate a critical reevaluation of management and organizational strategies adopted by unions, urging them to integrate contemporary managerial approaches into their operations.

This study discusses innovative management and organizational strategies aimed at enhancing the struggle capacity of labor unions. Specifically, it investigates the role of participatory management practices, strategic planning, professionalization, and the integration of digital transformation and technological advancements in union structures. Moreover, it explores the positive impacts of effective leadership models on union motivation and emphasizes how management practices that encourage employee participation in decision-making processes can strengthen union commitment and solidarity.

Through comparative analysis of national and international examples, this paper identifies successful cases where unions have effectively improved their organizational capacities through management innovations. Practical recommendations from management and organizational literature are also provided, addressing how unions can leverage these strategies to increase their efficacy and advocacy potential. Ultimately, this research aims to highlight essential management and organizational steps necessary to empower labor unions in their struggle, contributing to both academic knowledge and practical implementation. It addresses existing gaps in literature and practice, offering insights that can help unions more effectively defend worker rights and interests in the modern workplace.

Labor Unions, management and organization, union struggle, participatory management, strategic leadership

THE ROLE OF DIGITALIZATION IN COMMUNICATION EDUCATION: REFLECTIVE APPROACHES TO THEORY AND PRACTICE

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This study aims to evaluate the access to technology, usage practices, digital literacy levels, and educational digital access and technology usage practices of students studying communication at two of Turkey's largest universities, Ankara University and Y Universities. The transformations brought by the digital age are reshaping both teaching methods and student experiences in higher education. From a theoretical perspective, digitalization in education has become an inevitable necessity due to advancements in information technologies. In this process, individuals who fail to keep up with technological changes face various challenges in accessing information, effectively using digital tools, and adopting technology in education. University education is also affected by this transformation, requiring new skills, pedagogical approaches, and digital competencies for both educators and students. In this context, our study aims to analyze the extent, manner, and limitations of digital content and technology usage among university students studying communication. The research will employ a survey structured around four main themes: access, ownership, digital literacy, and adaptation-integration of educational content. As part of this study, a 20-question survey will be conducted with communication faculty students at Ankara University and Ankara Hacı Bayram University, and the findings will be discussed based on these four themes. The future of university education is undoubtedly intertwined with the era of artificial intelligence and digitalization. The ability of traditional education systems to integrate with these technologies, the skills university students need to develop, and how to overcome the challenges encountered in this process are becoming increasingly significant topics in academic research. Especially for communication faculties, which place digitalization at the core of their curriculum, this transformation is crucial for students' professional competencies. The findings of this study will provide valuable insights into how communication education has evolved and transformed with digitalization in the context of Turkey.

Digitalization in education, communication, digital literacy, technology integration, higher education transformation

TURKISH LANGUAGE TEACHERS' EVALUATIONS ON THE DEVELOPMENT OF STUDENTS' READING COMPREHENSION SKILLS: PROBLEM AREAS AND PROPOSED SOLUTIONS

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This study aims to explore the challenges faced by Turkish language teachers in fostering students' reading comprehension skills and to identify the solutions they propose to address these challenges. This research employed a qualitative design, with data collected through semi-structured interviews. The study sample consisted of 23 Turkish language teachers selected through purposive sampling from various educational institutions. The data were analyzed using content analysis. The analysis identified four main categories of challenges based on teachers' evaluations: teacher-related, student-related, family and community-related, and curriculum and resource-related issues. Teacher-related challenges included the inability of teachers to act as reading role models, inadequate professional development, and the tendency to assign reading instruction responsibilities to classroom teachers. Student-related challenges involved deficiencies in reading comprehension skills, lack of motivation to read, and negative attitudes toward reading. Family and community-related issues were primarily linked to insufficient parental support and a general lack of awareness or engagement within the broader community. Curriculum and resource-related challenges encompassed an overemphasis on grammar and exam-oriented instruction, limited instructional time, and inadequate educational materials. As potential solutions, the teachers emphasized enhancing the quality of teacher training, implementing student-centered and engaging reading practices, strengthening collaboration between parents and teachers, and incorporating authentic, learner-driven activities into the curriculum. These findings point to the critical need for a pedagogically grounded and system-wide approach to fostering reading comprehension among students.

Reading comprehension, current issues, teacher recommendations, Turkish language education

AN EXAMINATION OF EXAMPLES OF SOCIAL ROBOTS IN EARLY CHILDHOOD EDUCATION CURRICULUMS

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The use of artificial intelligence in education is an issue that has been frequently addressed in recent years. In this context, the integration of artificial intelligence into education programs is extremely important. Robots are educational materials that can be used effectively in the integration of artificial intelligence into educational programs. Social robots/humanoid robots can be used in educational programs because they are interesting for children with many features such as looking like humans, speaking, reacting, and moving. Especially for children in early childhood, social robots can be remarkable and motivating. In this context, the aim of this study is to examine sample applications regarding the use of social robots in early childhood education programs. Document analysis technique was used in the study conducted with qualitative research design. The documents of the research cover scientific studies (articles, theses and books) conducted between 2015 and 2025 with the keywords “preschool” “early childhood” “social robots” “curriculum”. In this context, data analysis was conducted through content analysis and the data were analyzed in three themes as PopBots, KiBO, SoRo. As a result of the research, it is seen that the use of social robots in early childhood education programs has increased in recent years, social robots are accepted by children due to their human-like characteristics, and classroom practices in interaction with them contribute to children's social interactions, making friends and reasoning about the robot.

Social robots, early childhood, education, curriculum, preschool

AN INVESTIGATION OF PRIMARY SCHOOL STUDENTS' DIGITAL GAME ADDICTION: THE CASE OF SAMSUN PROVINCE

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Digital games have become one of the foremost sources of entertainment for children today. Consequently, examining the levels of digital game addiction among children and identifying the variables that may influence or differentiate these levels is of significant importance. In this regard, the present study aims to investigate the digital game addiction tendencies of children aged 10 to 13 in relation to various demographic and behavioral factors. To achieve this aim, the research was designed using the survey model, a quantitative research method. The study sample is planned to consist of 400 students enrolled in three different primary schools located in Samsun, Turkey, during the spring term of the 2024–2025 academic year. Data will be collected through a “Personal Information Form” and the “Digital Game Addiction Scale for Children.” The data obtained will be analyzed using the SPSS statistical software. The study seeks to determine the overall level of digital game addiction among children. Furthermore, it aims to examine whether statistically significant differences exist in addiction levels based on variables such as gender, age, academic performance, the number of books read per month, daily internet usage duration, and parental education levels. It is anticipated that the findings of this study will contribute meaningfully to the existing body of literature on digital game addiction in children.

Digital games, digital game addiction, primary school students

A COLLECTIVE APPROACH TO KAFKA'S CHARACTERISTIC STRUCTURE AND SPIRITUAL ATMOSPHERE IN HIS WORKS

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Franz Kafka is recognized as one of the leading writers of contemporary German literature. His life and work continue to attract the attention of researchers, literature and the art world. Kafka, who wrote in his unique 'Kafkaesque' style, is of interest in many disciplines such as literature, art and cinema. His works contain important clues about his understanding of literature and art, his personality and character. This study aims to reveal Kafka's character structure and the spiritual atmosphere in his works with a collective approach using hermeneutic and psychoanalytic methodologies through his novels *The Castle*, *The Trial* and *The Metamorphosis*, which are among his well-known works. Without evaluating the novels one by one, the images that are considered within the framework of the general atmosphere of the novels are interpreted with a collective and holistic perspective. Kafka includes basic existential feelings such as anxiety and alienation that are unique to humans in his works, and he fictionalizes characters who try to hold on to life and give it meaning. He brings together real and fantastic elements in his works. He skillfully depicts how the social problems of the modern world turn into a hopeless and merciless scene for people. The messages he gives in his works transform him into a writer who transcends his time and makes it permanent and up to date. Although his friends reported that he was an extremely cheerful and relaxed person, Kafka's personality and character structure are not reflected in his works, and even conflict with the subjects and atmosphere he deals with in his works. This situation drives researchers who want to understand him and benefit from his ideas to examine him more closely. It is difficult to identify a writer among European writers who narrates the intensity and difficulties he experienced in his short life in such a complicated way.

Kafka, novel, characteristic structure, spiritual atmosphere

THE RICHNESS OF OUR LANGUAGE PROJECT: PRESCHOOL TEACHER EXPERIENCES

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The aim of the study is to examine the experiences of preschool teachers about the “The Richness of Our Language Project”. Case study method, one of the qualitative research methods, was used in the study. The study group of the research consists of 33 preschool teachers working in kindergartens and nursery schools affiliated to the Ministry of National Education in the 2024–2025 academic year. Convenient sampling method was used to determine the participants. A structured interview form prepared by the researchers was used as a data collection tool. The data were analyzed by content analysis method using MAXQUDA program. As a result of the study, it was determined that most of the teachers held a project information meeting at their schools, all of them examined the project implementation guide, most of them included families in the project, but most of them did not cooperate with institutions and organizations within the scope of the project. Teachers mostly used the interactive/shared book reading activity type in the activity implementation guide within the scope of the project; the reasons for using this activity type were stated as being easy to implement, attracting children's attention, and being suitable for their age and developmental levels. Of the resources on the preschool works list within the scope of the project, teachers mostly used “365 Days Storybook” and “Start Education with Early Education: ECE Project”; and that they used the Turkish flag, carpet weaving tools, introduction of clothes and objects, riddles, mani, fairy tales, lullabies, poems, epics, folk songs, dances, idioms and proverbs within the scope of cultural elements.

Richness of our language project, preschool teacher, MAXQUDA

THE EFFECT OF DRAMA ACTIVITIES ON PRESCHOOL CHILDREN'S SELF-CARE SKILLS

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The aim of the study is to examine the effect of drama activities on the self-care skills of preschool children. In the literature review, studies on drama and self-care skills were found, but there were no studies examining the effect of drama on self-care skills. For this reason, this study was conducted to reveal whether drama activities have an effect on the self-care skills of preschool children and what kind of effects, if any, they have. Quasi-experimental design, one of the quantitative research methods, was used in the study. The study group was formed by using convenience sampling from purposeful sampling methods. The study group consisted of 26 children aged 48-60 months, 14 in the experimental group and 12 in the control group. The "Self-Care Skills Assessment Test for 3-6-Year-Old Children" developed by Bayer, Çağdaş, Kayılı (2019) was used as a data collection tool in the study. The test was completed by the teacher of the class separately for each child as pretest and posttest. In the implementation part of the study, drama activities related to self-care skills were applied to the experimental group for 6 weeks in addition to their normal education. The control group continued their normal education. As a result of the study, it was determined that drama activities positively affected the self-care skills of 48-60-month-old preschool children.

Drama activities, preschool, early childhood, self-care skills

ARTIFICIAL INTELLIGENCE ADDICTION OF UNIVERSITY STUDENTS: THE CASE OF ORDU UNIVERSITY

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Considering the rapid development of technology and the innovations it brings with it, it seems that it will continue to maintain its position in our lives for a long time. In this context, it is considered valuable to carry out studies to understand artificial intelligence addiction, which is one of the concepts that technology has brought to our lives.

The aim of this study is to determine the artificial intelligence addiction levels of university students studying in different departments of Ordu University Faculty of Education and to examine them according to various variables. The sample group of the study will consist of university students studying in different departments at Ordu University Faculty of Education in the Spring semester of the 2024–2025 academic year. In the study, the "Artificial Intelligence Addiction Scale" adapted into Turkish by Savaş (2024) to determine the students' artificial intelligence addiction levels and the "Personal Information Form" created by the researchers to obtain sociodemographic characteristics will be used. In line with the findings obtained from the research, the results will be discussed and various suggestions will be made.

Artificial intelligence, addiction, artificial intelligence addiction

THE IMPORTANCE OF MUSEUM EDUCATION AT THE PRIMARY SCHOOL LEVEL

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This study examines the impact of museum education on the cognitive, social, and cultural development of primary school students. Museum education provides students with the opportunity to concretize abstract concepts, develop critical thinking skills, and gain cultural awareness. The study evaluates the effects of museum education through a literature review, analyzing a total of 43 academic studies. Findings indicate that museum education enhances students' aesthetic awareness, improves their critical thinking skills, and positively contributes to their academic success. Additionally, integrating museums into the curriculum emerges as a significant tool for supporting in-class learning. In particular, interactive activities in museums have been found to strengthen students' social skills and enhance their sense of empathy. In conclusion, museum education is a crucial educational strategy that supports the academic and social development of primary school students. In this context, raising teachers' awareness of museum education and integrating museum visits more effectively into the education system are recommended.

Museum education, primary school education, cognitive development, social skills, cultural awareness

A HOLISTIC INTERVENTION PLAN FOR ADDRESSING LEARNING LOSSES IN PRIMARY EDUCATION

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Crises such as the COVID-19 pandemic and major earthquakes have led to significant learning losses in primary education, prompting a multidimensional transformation in Türkiye's education system. In response, a comprehensive intervention plan was developed through the joint initiative of the Ministry of National Education and UNICEF under the *Improving and Strengthening Basic Education (TEGG)* Project, aiming to identify, address, and prevent learning losses.

In the first phase of the project, pilot implementations focused on Turkish and Mathematics courses integrated differentiated and enriched instructional approaches into the teaching process, yielding meaningful gains in students' academic and socio-emotional development.

In the second phase, aligned with the *Türkiye Century Education Model*, the intervention plan was expanded and updated to include early literacy, Turkish, Mathematics, Life Sciences, Social Studies, and Science courses. The updated strategic plan adopts a multidimensional structure involving formative assessment processes, teacher training, school leadership, parental involvement, socio-emotional support, and pedagogical models such as enriched and tiered instruction.

By integrating these strategies directly into the teaching process, the plan offers teachers a sustainable and practical framework. Findings indicate that beyond its remedial function in post-crisis recovery, the intervention holds transformative potential to enhance inclusiveness, flexibility, and resilience within the education system.

Learning loss, learning gap, tiered instruction, educational inequalities

EXAMINING TEACHERS' VIEWS ON THE LEVEL OF THE 5TH GRADE IN THE 4+4+4 EDUCATION SYSTEM

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In this study, it is aimed to determine which level of the 5th grade would be more beneficial in terms of the developmental needs of the students, in line with the thoughts, experiences and opinions of primary and secondary school teachers about the 5th grade level. The phenomenology approach was adopted as a qualitative research design in the study. The study group of the research consists of 20 primary school and 20 secondary school teachers. The data collected through interviews with semi-structured open-ended questions were subjected to an intensive three-stage content analysis process using descriptive, content analysis and constant comparison techniques. Analyzes were performed on 224 in vivo coded views. Research findings showed that both groups agreed that it is more beneficial for the 5th grade to stay in primary school, and that students move to secondary school early in terms of lack of readiness and both cognitive and social-emotional development.

12-year compulsory education, 5th grade level, primary and secondary school teachers

AN INVESTIGATION INTO PRIMARY SCHOOL TEACHERS' AWARENESS LEVELS REGARDING READING DIFFICULTIES

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Reading is a complex mental skill that integrates cognitive, linguistic, and perceptual processes. Students may encounter various challenges during the reading process. These difficulties include word or syllable repetition, the addition of syllables or words, and reading letter by letter. This study aims to examine the awareness levels of primary school teachers regarding reading difficulties. The study was conducted using a case study design, which is one of the qualitative research methods. The research group consisted of 44 volunteer primary school teachers working in Samsun during the fall semester of the 2022–2023 academic year. A semi-structured interview form, developed based on expert opinions, was used as a data collection tool. This form included six demographic questions and five open-ended questions. The data obtained were analyzed through content analysis using the Maxqda program. According to the research results, awareness levels regarding reading difficulties varied among teachers. The findings revealed that the majority of participants had limited knowledge about reading difficulties and lacked familiarity with methods, practices, and activities that could help address such challenges. One of the primary reasons for this is that most teachers had not received sufficient training on reading difficulties during their undergraduate studies or through in-service training programs. Additionally, a significant portion of the participants equated reading difficulties solely with dyslexia, indicating some conceptual misunderstandings in this area.

Primary school teacher, reading disability, reading disability awareness

EDUCATING TEACHERS FROM INSIDE THE NOTEBOOK: CREATIVE PRACTICES IN SOCIAL STUDIES

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The aim of this study is to explore the experiences of pre-service social studies teachers regarding the use of interactive notebooks and to reveal how this process contributes to the development of their teaching skills. Interactive notebooks are learning tools that promote active participation in the learning process, both cognitively and affectively, while supporting thinking, reflection, and creative production. The study was conducted using a qualitative case study design. The study group consisted of 17 pre-service teachers enrolled in the social studies teacher education program at a public university. Data were collected through semi-structured interviews and documents obtained from the participants' notebooks and were analyzed using content analysis. The findings indicate that the use of interactive notebooks contributed to the development of various pedagogical skills, such as lesson planning, creativity, self-assessment, and a student-centered teaching approach. In addition, participants reported high levels of motivation and a sense of belonging throughout the process. The findings are discussed along with suggestions for the more systematic and widespread use of interactive and creative instructional materials in teacher education.

Interactive notebook, social studies education, teacher education, creative teaching, pedagogical skills, qualitative research

A COMPARATIVE ANALYSIS OF GRAMMAR LEARNING OUTCOMES IN TURKISH LANGUAGE CURRICULA DEVELOPED THROUGH A CONSTRUCTIVIST APPROACH

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This study aims to compare the grammar-related learning outcomes included in the Turkish Language Curricula (TLC) developed within the framework of the constructivist approach. To this end, document analysis, a qualitative research method, was employed. The data sources of the study consist of the Turkish Language Curricula published in 2006, 2019, and 2024 by the Board of Education of the Ministry of National Education. The data were analyzed using descriptive analysis. The findings reveal that while the 2006 TLC addressed grammar under a separate heading, the 2019 and 2024 curricula incorporated grammar instruction into the broader categories of speaking, reading, and writing skills. While the 2006 curriculum included detailed explanations and sample activities for grammar-related outcomes, such components were either significantly limited or entirely absent in the 2019 and 2024 versions. Furthermore, it was concluded that the 2024 curriculum introduced new learning outcomes that had not been included in the 2006 and 2019 versions, and that grammar was removed from the scope of assessment and evaluation. Based on these findings, it is suggested that the most critical change distinguishing the 2024 curriculum from its predecessors—and one that is likely to profoundly influence future practices—is the explicit decision to exclude grammar from measurement and evaluation processes.

Turkish language curricula, grammar learning outcomes, comparative analysis

EXAMINING CLASSROOM TEACHERS' PRACTICES OF DIFFERENTIATED INSTRUCTION

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This study aims to examine how classroom teachers implement differentiated instruction, the challenges they encounter in the process, and the impact of this approach on student diversity. Differentiated instruction is an approach that seeks to provide appropriate learning experiences for each student by considering individual differences. In this context, identifying and implementing effective instructional strategies tailored to students with diverse learning needs is crucial for understanding classroom dynamics. The study adopts a qualitative research design, specifically a case study approach. The research sample consists of six classroom teachers selected through purposive sampling. Data will be collected through semi-structured interviews and classroom observations. The collected data will be analyzed using descriptive analysis and content analysis methods. This research aims to explore classroom teachers' experiences and perceptions of differentiated instruction, as well as the challenges they face in the process. The expected findings will provide significant insights into the impact of differentiated instruction on student motivation and academic achievement. Additionally, the study will shed light on the strategies that teachers find most effective and the methods they use to overcome difficulties. The findings of this study are expected to serve as a valuable resource for teachers seeking to enhance their differentiated instruction practices and for policymakers shaping educational policies.

Differentiated instruction, classroom practices, teacher experiences, qualitative research

VOICING THE SILENCED EARTH AND WOMAN: SIMPSON'S "DIARY OF AN INTERESTING YEAR"

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Since the Industrial Revolution, humanity's escalating impact on the planet—fueled by rapid population growth and unsustainable consumption habits—has inflicted irreversible damage on nature and the environment. In societies dominated by patriarchal systems, the impact of environmental destruction is most profoundly felt by women, children, and the economically vulnerable lower strata of society. In this respect, ecofeminism questions the similar forms of oppression experienced by both nature and women. By analysing the exploitative relationship between women's bodies and the natural environment, it reveals that environmental destruction has a devastating effect not only on the ecosystems but also on gender equality. From this perspective, the struggle to protect the environment becomes a fight for the freedom and equality of both women and nature — an idea that has been powerfully expressed through literary works, where authors aim to draw attention to present dangers and looming ecological threats. One such author, Helen Simpson, unveils the chilling effects of environmental destruction in her short story "Diary of an Interesting Year," (2009) published in *The New Yorker*. In her futuristic short story, written in the form of a diary, Simpson illuminates the effects of environmental destruction and climate change by linking them to the internal conflicts of the female protagonist and the broader societal transformations she faces. In this context, this study seeks to discuss Simpson's story through an Ecofeminist framework, analysing how patriarchal and capitalist structures contribute to the exploitation of both women and nature in the context of environmental degradation and climate change.

Ecofeminism, environmental destruction, gender inequality, climate change, patriarchy

PERCEPTIONS OF SCHOOL CLIMATE AS A PREDICTOR OF LIFE SATISFACTION AMONG UNIVERSITY STUDENTS

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The aim of the study is to examine the relationship between university students' perceptions of school climate and their life satisfaction. In this context, the research will seek answers to the questions of the levels of university students' perceptions of school climate and their life satisfaction, whether the participants' perceptions of school climate and their life satisfaction show a significant difference according to the variables of gender, whether they have chosen their department willingly and whether they have chosen their university willingly, and whether there is any significant relationship between these two variables. The research was designed with the correlational survey model, which is a quantitative research method. The study group consisted of 194 students studying at a state university in Turkey. The "School Climate Scale for University Students" developed by Terzi (2015) to measure students' perceptions of school climate and the "Life Satisfaction Scale" adapted by Dağlı and Baysal (2016) to measure their life satisfaction were used as data collection tools in the research. In addition, a personal information form was prepared by the researchers to determine the demographic information of the participants. The construct validity of the scales was tested with confirmatory factor analysis (CFA) and Cronbach alpha coefficients were calculated for reliability. In the analysis of the data, descriptive statistics such as arithmetic mean and standard deviation, t test, Pearson correlation and regression analysis were used. As a result of the research, it was determined that both participants' perceptions of school climate and life satisfaction were at a moderate level. It was found that university students' perceptions of school climate and life satisfaction did not show a significant difference according to variables such as gender and whether they choose their department willingly, but they showed a significant difference according to variable such as whether they choose their university willingly. While a low-level positive significant relationship was detected between the two variables, it was reported that university students' perceptions of school climate were a significant predictor of their life satisfaction.

School climate, life satisfaction university students

COMPARISON OF 2018 AND 2024 MIDDLE SCHOOL MATHEMATICS CURRICULA FROM THE PERSPECTIVE OF STATISTICAL PROCESS STAGES

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The aim of this study is to compare the 2018 and 2024 Middle School Mathematics Curricula implemented in Turkey from the perspective of statistical process stages. Document analysis method, one of the qualitative research methods, was used in the study. In this process, these documents were analyzed in line with the GAISE (Guidelines for Assessment and Instruction in Statistics Education) report, which includes principles for teaching and assessment in statistics education. This report includes the stages of the statistical process (identifying the problem situation, data collection, data analysis, and interpreting the results) and three levels (levels A, B, and C) defined for these stages from basic to advanced. As a result of the analysis, it was determined that in 2018 Middle School Mathematics Curriculum, the achievements related to the Data Processing learning area were not distributed in a balanced manner in terms of statistical research processes and that the achievements at level A, which is the basic level, were predominantly included. In 2024 Middle School Mathematics Curriculum, when the process components of the learning outcomes related to the statistical research process theme were examined, it was determined that there was a more balanced distribution in terms of statistical process stages and the levels defined for these stages.

Statistical process, GAISE report, mathematics curriculum

PERFORMANCE ANALYSIS OF THE SONG “BUGÜN AYIN IŞIĞI” BY EROL CÖKE, A VIOLINIST FROM THE CENTRAL ANATOLIA REGION

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Although it is not certain, the violin began to be performed in Ottoman lands in the 18th century, and during the process of westernization movements, it replaced the rebab, kemençe and sinekeman, which were the basic string instruments of Turkish music, and gained great importance. During this process, the violin, which was also known by the local people, was also performed in regional music with a regional style. Central Anatolia is one of these regions. Erol Cöke, one of the violin players who lived in the Central Anatolia region, skillfully performed the melodies of the region in his own style and was appreciated by the people. When the literature is examined, it is seen that no study has been conducted on Erol Cöke's violin performance style. It is important to examine the skillful performances of local performers and determine their characteristics in terms of the instrument literature and recording the regional performance style. In this context, this study aims to determine the performance characteristics of the piece called "Bugün Ayın Işığı" performed by Erol Cöke, one of the violin players of the Central Anatolia region. This research is a case study within the discipline of qualitative research. Within the scope of the research, firstly, a source scan was conducted and both written sources and video and audio recordings on the internet were examined. Then, the obtained data were analyzed with the descriptive analysis method. The score of the determined piece was written using the Finale notation program and the technical and nuance features of the performance were shown on the note. As a result of the analysis, it was determined that Erol Cöke used the performance techniques of legato playing, detache playing, yakın trill, sliding and multiplication performance techniques that take their value from the previous note while performing the piece, and that he generally preferred medium force in the expression of the piece.

Erol Cöke, violin performance, performance analysis

POSTFEMINISM AND WOMEN'S RIGHTS MOVEMENT IN TURKIYE

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Starting right from the 19th century, women's rights movement in Türkiye has had various phases sometimes coinciding with, but sometimes diverging from its contemporaries while developing its own unique characteristics. Having elitist roots, the emergence of the women's rights movement in Türkiye dates back to the Ottoman modernization era especially as being visible in the literary works of some upper class women of the society. This early phase of the movement mostly tried to challenge the socially disadvantaged situation of women in Ottoman society. Early republican era witnessed the claims of equal rights especially the political ones. During the decades between the 1930s and 1980s, the women's rights movement in Türkiye entered an era of silence and discontinuity. However, starting from the 1980s, a new kind of women's rights activism being parallel to the global tendencies and aligned with the cultural rights demands started to be visible. Today's feminism, mostly regarded as postfeminism in literature is a kind of popular trend which is mostly criticized as being a consumer product that does not truly include the women's rights advocacy. Based on a qualitative research on the products of popular culture, this study searches postfeminism in Türkiye as a current trend and tries to describes its characteristics.

Feminism, postfeminism, women's rights movement in Türkiye, popular culture

EXAMINATION OF DIFFERENTIAL ITEM FUNCTIONING IN PIRLS 2021: SOCIOECONOMIC BIAS IN READING COMPREHENSION ITEMS

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This study examines whether the PIRLS 2021 reading comprehension test items exhibit Differential Item Functioning (DIF) based on students' home socioeconomic status (SES). The sample consists of students from Turkey, Ireland, and South Africa who participated in the PIRLS 2021 field trial, with 27 common items administered across these countries. DIF was detected using three methods: Mantel-Haenszel (MH), Logistic Regression (LR), and Lord's Chi-square test. SES was dichotomized into high and low categories. The results revealed significant differences across methods. The MH method detected fewer items with DIF, while Lord's Chi-square identified more items, often classifying them as large DIF. Logistic Regression distinguished between uniform and non-uniform DIF, revealing patterns that MH and Lord's methods missed. These findings emphasize the need for multiple methods in DIF analysis to avoid incomplete or biased results. The presence of DIF in several items suggests that reading comprehension tasks may reflect socioeconomic bias, potentially disadvantaging students from lower SES backgrounds.

Differential item functioning (DIF), socioeconomic status (SES), reading comprehension, international assessment

TEACHERS' EXPERIENCES OF SMART EDUCATION SYSTEMS: A CASE STUDY

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The integration of technology with education is one of the most important developments that has changed the dynamics of learning processes. In recent years, the role of digital technologies and artificial intelligence in education has increased, allowing teaching methods to become more personalized, flexible and data-driven. In particular, “smart education systems” (Smart Learning Systems) reshape the experiences of both students and teachers by making learning processes more interactive and adaptive. These systems, supported by advanced technologies such as artificial intelligence and big data analytics, have the potential to personalize learning environments, increase classroom interaction and optimize teachers' guidance roles. Smart education systems can offer significant opportunities to teaching processes by combining digital technologies and artificial intelligence. This study aims to examine teachers' perceptions of smart education systems (SES) and the effects of these systems on educational processes in the classroom. 10 primary school teachers participated in the study. Data were collected through in-depth interviews conducted on teachers' views on SES, the role of the system in education, and integration processes in the classroom. The findings of the study revealed that teachers generally had a positive attitude towards SES, but the lack of technical infrastructure and low levels of digital literacy in classroom applications constituted significant obstacles. It was determined that SES made students' learning processes more personalized and interactive, but teachers needed additional training and support mechanisms to use these technologies effectively. The results of this study emphasize the importance of programs that increase teachers' digital competence and a strong technical infrastructure in order to overcome the obstacles to technology integration in education. It is recommended that future research focus on how to overcome these obstacles and make SES more efficient.

Smart Education Systems, artificial intelligence, technology in education, teacher perceptions, digital competence

THE CONCEPTUAL EVOLUTION OF SMART CITY

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The literature on smart city emerged and grew starting from the early 1990s. However, there is a growing academic interest in smart city research and accordingly, a dramatic increase in the number of relevant publications since the beginning of the 2010s. This interest and the upward trend helped to build a literature on smart city focusing not only the definitions but also the components, models, frameworks and indicators related to the smart city projections. This study tries to indicate the change in these components, models, frameworks and indicators in the smart city literature over the years giving an analysis of various definitions of the smart city concept with the help of the content analysis technique. While exploring both the technological and the socio-political components, the research helps to reach a better understanding of the smart city approach contributing to the development of a conceptual consistency.

Smart city, holistic approach, technological components, socio-political components

DETERMINATION OF CLASSROOM TEACHERS' SELF-EFFICACY PERCEPTIONS ON DIFFERENTIATED INSTRUCTION

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Differentiated instruction is an approach that aims to make the learning process more effective and inclusive by taking into account the individual differences of students. The main purpose of the study is to reveal how classroom teachers' self-efficacy levels shape their classroom teaching strategies. In this context, through interviews with teachers selected through convenience sampling, experiences related to the planning, implementation and evaluation processes of differentiated instruction were examined in depth. In addition, the difficulties faced by teachers in this process and the solutions they developed were also analyzed comprehensively. The findings of the study were evaluated in the context of gender, seniority and education level variables and the reflections of these variables on self-efficacy perceptions and teaching practices were discussed. The study is expected to contribute to the development of classroom teachers' professional competencies and provide new insights into the literature on differentiated instruction. In addition, it is suggested that differentiated instructional strategies should be included more in teacher training programs.

Differentiated instruction, self-efficacy, classroom teachers

IN-DEPTH EXAMINATION OF MATHEMATICAL EXPERIENCES OF CHILDREN DIAGNOSED WITH DYSCALCULIA: A STUDY ON QUALITATIVE INTERVIEWS

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This study aimed to examine in depth the mathematical experiences of children between the ages of 8 and 12 diagnosed with dyscalculia. The research was conducted with a qualitative research design and semi-structured interviews were conducted with the participants. Based on the obtained data, four main themes were determined: Perception of Mathematical Difficulty, Emotional Responses and Academic Self-Confidence, Support Processes and Coping Strategies, and Learning Environment Experiences. Under the theme of Perception of Mathematical Difficulty, difficulties experienced by students in areas such as calculation, direction concept and numerical estimation skills were revealed. The theme of Emotional Responses and Academic Self-Confidence showed that children experienced anxiety, worry and loss of self-confidence related to mathematics. The theme of Support Processes and Coping Strategies emphasizes the importance of individual support children receive from their teachers and their own coping strategies. Learning Environment Experiences revealed that teaching methods and learning materials in the classroom positively or negatively affect students' mathematical experiences. These findings show that children diagnosed with dyscalculia need multifaceted support in their education processes. The study offers inferences suggesting that teachers' awareness levels should be increased, individualized teaching strategies should be developed, psychological support and guidance services should be strengthened, and early diagnosis systems should be expanded.

Dyscalculia, mathematical experiences, learning difficulties, education, psychological support, early diagnosis

UNDERSTANDING SELF-LEARNING THROUGH MIND MAPS: PERCEPTIONS OF RURAL PRIMARY SCHOOL STUDENTS

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Self-learning is defined as the process in which individuals actively plan, monitor, and evaluate their own learning. This skill constitutes a core component of lifelong learning competence and has become increasingly significant in today's rapidly changing knowledge societies. At the primary school level, developing an awareness of self-learning can contribute to fostering learners who are more responsible and autonomous in their approach to learning from an early age. The aim of this study is to explore the perceptions of self-learning among primary school students living in rural areas. The research was conducted using a qualitative design in two phases. In the first phase, 32 primary school students were asked to draw mind maps to illustrate their conceptualizations of self-learning. The students used their prior knowledge of mind mapping to visually represent their understanding of the concept. In the second phase, a subset of students was selected for face-to-face interviews, based on the content of their mind maps. These interviews enabled a more detailed analysis of students' awareness of their own learning processes, their sources of motivation, and the strategies they employ in learning. The focus on rural students stems from the fact that they often face limitations in terms of educational resources and support systems. These constraints make it even more critical for such students to develop self-learning skills. Understanding how rural students perceive and take responsibility for their own learning is thus considered valuable. The findings of this study suggest that educational policies and instructional strategies should be restructured in ways that better support the development of self-learning skills among students in rural contexts.

Self-learning, mind maps, primary school

AN ANALYSIS OF THE AWARENESS OF GAMES IN PIETER BRUEGEL'S "CHILDREN'S GAMES" PAINTING BY GENERATIONS X, Y, Z AND ALPHA

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This study aims to examine to what extent the traditional games depicted in Pieter Bruegel's 1560 painting *Children's Games* are known and remembered by generations X, Y, Z and Alpha in Türkiye. Bruegel's painting provides a rich panorama of children's culture in 16th century Europe by depicting nearly 90 games in detail. This research aims to reveal the transfer of game knowledge between generations by evaluating the games included in the painting in the context of cultural continuity and social memory. The participants of the study consist of a total of 200 individuals, 50 representing each generation, living in different cities of Türkiye. The age ranges were determined as Generation X (1965–1980), Generation Y (1981–1996), Generation Z (1997–2012) and Generation Alpha (2013 and later). An interview form containing visual representations of the games in Bruegel's painting was used as the data collection tool. Participants were asked to describe and name the games in the images and to indicate the extent to which they have experienced these games. Qualitative data was collected through open-ended questions, while quantitative data was collected through multiple-choice questions. As a result of the research, it is predicted that traditional game knowledge and experience show significant differences between generations; Generations X and Y have broader game memories, while Generations Z and Alpha are less familiar with these traditional games due to the influence of digital game culture. The data obtained will provide important clues for the continuity of cultural heritage and game-based pedagogical approaches.

Generations, game, children's game

INVESTIGATION OF PROSPECTIVE CLASSROOM TEACHERS' ATTITUDES TOWARDS THE USE OF AR TECHNOLOGY IN EDUCATION

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Augmented reality is based on the principle of synthesizing real and virtual information. The AR user interacts with both real and virtual objects in time. AR technology is used in many fields such as military, industry, medicine, advertising and entertainment. In addition, AR is also used in the field of education and this technology can be integrated into the learning, teaching and instructional design process. In this context, mobile phones and tablets, which are widely used in daily life and have equipment such as screens and cameras, are used. With the help of AR applications downloaded to these devices and real objects to match them, students can easily make various observations. With AR technology, time and space limitations on learning are eliminated. This technology should not be considered as a technique that replaces teaching with real materials, but rather as an alternative that strengthens the teaching process.

Teachers' knowledge, behaviors and attitudes about the subject are of great importance in the integration of AR technology in the classroom environment. As a matter of fact, it is the teachers who will guide the students in using AR technology in the lesson and carry out the process of implementing AR technology-based activities. Therefore, it is important to examine the attitudes of teachers and pre-service teachers towards AR technology. When the national literature is examined, it is seen that there are studies to determine pre-service teachers' attitudes towards AR technology with qualitative research methods.

In this study, it is aimed to examine the attitudes of prospective primary school teachers towards the use of AR technology in education. The research model is survey model from quantitative research methods. The study group of the research will consist of pre-service teachers who are studying in the classroom teaching department with the method of easily accessible case sampling. 'Augmented Reality Attitude Scale for Prospective Teachers' will be used as a data collection tool. The scale consists of 23 items and 4 sub-dimensions and is five-point Likert type. Permission to use the scale was obtained via e-mail with the responsible researcher. The data collection process is ongoing.

Augmented reality, attitude, primary education teacher

EDUCATION AND IDENTIFICATION OF GIFTED AND TALENTED STUDENTS IN TÜRKİYE

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This study examines in-school and out-of-school educational practices for gifted and talented students in Türkiye, with a focus on how these practices align with identification processes. Early identification and placement of gifted students into suitable learning environments are of strategic importance, as they support students' full potential and societal contributions. In-school practices include science high schools, fine arts high schools and faculties, sports high schools and faculties, private schools and Research, Development, Training and Implementation Centers (ARGEM), operating under the Ministry of National Education (MEB, 2017). These institutions offer differentiated curricula based on students' talent domains and provide structured support mechanisms through enriched academic pathways and specialized staff. Out-of-school practices involve more flexible, individualized programs. Notably, Science and Art Centers (BİLSEM) provide enrichment based on students' specific strengths (MEB, 2021). Additionally, some universities offer talent-oriented, interdisciplinary education programs designed to foster advanced cognitive engagement, creativity, and self-directed learning among gifted students. Identification processes in these settings rely on multifactorial systems. According to Sak (2014), relying solely on intelligence tests is insufficient; comprehensive identification should include performance-based evaluations, expert judgments, creative tasks and interest profiles. These approaches assess not only existing achievement but also growth potential in diverse domains. In conclusion, gifted education system in Türkiye is built upon multidimensional structures. Both in-school and out-of-school mechanisms play a significant role in developing gifted students. However, further empirical research is necessary to evaluate the effectiveness, consistency, and inclusiveness of these educational practices in long-term student development.

Gifted and talented students, educational programs, identification

IS THE STUDENT GIFTED OR NOT? WHAT FACTORS AFFECT THE DECISIONS OF PRE-SERVICE PRIMARY SCHOOL TEACHERS?

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In Türkiye, Science and Art Centres are the institutions where gifted students are diagnosed and benefit from an education programme. The beginning of the identification and placement process is that the primary school teacher nominates the student within the quota and supports this with an observation form. Therefore, the process is based on the teacher's knowledge, experience and objective thinking skills. In order to increase the effectiveness of teacher nomination processes, in-service and pre-service trainings are important. In the research designed for this importance, it was aimed to understand how and on what grounds pre-service teachers make their decisions on the guidance of gifted students through various student profiles. Case study design was preferred in the study. The participants consisted of a total of 70 pre-service teachers at the Faculty of Education of a state university. The Student Profiles Survey adapted into Turkish by Erdimez (2019) was used as a data collection tool. Out of 64 gifted student profiles, eight were selected to be used in this study. The data collection process was carried out by the researchers through face-to-face implementation. The researchers made the necessary explanations and they filled in the surveys independently. After descriptive and inductive analyses, three main findings were reached: (1) Perceptions of giftedness and expectations of giftedness affect nominations. (2) Achievement and ability in quantitative courses are considered more valuable than achievement and ability in verbal courses. (3) If the candidate has social-emotional problems during the nomination process, cognitive skills take a back seat.

Gifted students, teacher nomination, pre-service teachers, case study

EXAMINATION OF PRIMARY SCHOOL CURRICULA OF THE TURKIYE CENTURY EDUCATION MODEL IN TERMS OF LITERACY SKILLS

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Reading and writing are the concepts used to use writing symbols and to decipher the meaning with the same symbols. Literacy, on the other hand, is a means of understanding, sharing, interpreting and transferring the knowledge, skills and social norms in the society, which starts with vocalising and interpreting written symbols, to the next generations. Literacy is different from reading and writing. Today, literacy is an educational term that expresses many mental skills beyond being an action performed with writing symbols. Literacy has gained a wide scope depending on technology and culture and different literacy skills have emerged. The Turkish Century Education Model, which has been implemented by the Ministry of National Education since the 2024–2025 academic year, includes nine literacy skills: information literacy, digital literacy, financial literacy, visual literacy, cultural literacy, citizenship literacy, data literacy, sustainability literacy, and art literacy. In this study, qualitative approach was adopted as the research design in order to examine how literacy skills are distributed according to courses and classes. In this context, the primary school programmes prepared and changed within the scope of the Turkish Century Education Model were included in the research. The outcomes related to literacy skills in the programmes were transformed into codes and results were obtained about the distribution of literacy skills according to classes and courses. According to these results, the most achievements belong to visual literacy skill and visual literacy is followed by digital literacy skill. The course with the highest number of literacy skill outcomes on an annual course basis is the social studies course.

Literacy, education model, curriculum

ANALYSING 21ST CENTURY SKILLS IN TERMS OF TURKEY CENTURY EDUCATION MODEL

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In a developing and changing world, the skills that education policies expect from individuals have also changed and developed. 21st century skills have been classified, defined and named by many researchers, institutions and organisations. In order for individuals to be able to adapt to the changes that occur, to be able to select information from the masses of rapidly produced information and to use it in their daily lives, they need to have high-level skills and competences as well as basic skills. These skills and competences that individuals should have in the information society are called 21st century skills. In the Turkiye Century Education Model, which has been put into practice since the 2024-2025 academic year, seventeen field skills related to 21st century skills have been identified and included in the programmes. In this study, it is aimed to examine how 21st century skills are handled in the context of courses and classes in primary school programmes that have been changed and put into practice in line with the Education Model. Content analysis method, one of the qualitative research methods, will be used in the study. Within the scope of the research, the skills addressed in primary school programmes will be coded and results will be obtained about which 21st century skills are addressed predominantly in which class and lesson and which ones are given less space.

21st Century skills, education model, curriculum

SEMIOLOGICAL ANALYSIS OF KENAN HULUSI KORAY'S "MIRAS KEÇE" STORY

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Semiology is one of the fields of study of linguistics, the foundations of which were laid by F. de Saussure's concept of sign. This field, which allows interpreting how meaning is produced in texts and how the signifiers in the surface structure of the text find correspondence in the deep structure, is applied in many fields from painting to architecture. From this perspective, all kinds of linguistic, visual or cultural signs fall within the scope of semiology. In this study, Kenan Hulusi Koray's story "Miras Keçe" was examined in terms of semiology. Although the story progresses on the surface structure with the inheritance of an old felt and the devaluation of this heritage, in the deep structure, it tells the story of how traditional values lose their meaning in the face of modern life. When the work is examined according to Roland Barthes' semiotic levels; while "felt" is an ordinary object in the denotative level, it is the representative of spiritual values in the connotative level. The story reveals how the felt, which symbolizes traditional values, loses its function and becomes worthless in modern society. In this context, "Miras Keçe", despite its seemingly small narrative volume, has successfully constructed binary oppositions such as tradition and modernity, past and present, function and meaning. From this perspective, the story can be evaluated as a text that narrates the cultural change in society through symbols.

Semiotics, structuralist approach, linguistics, deep structure, surface structure

SYSTEMATIC REVIEW OF STUDIES ON MATHEMATICAL THINKING

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This study aims to map the articles on mathematical thinking published in the Web of Science database using the bibliometric analysis method and to investigate the research trends. As a result of the search made with the phrase "mathematical thinking" in the Web of Science database, 668 articles published in English in the field of mathematics education were included in the research. As a result of the research, it was determined that the number of studies on mathematical thinking increased regularly between the years determined. In addition, the most frequently used keywords in the studies examined were mathematics, noticing, mathematics education, student mathematical thinking, problem-solving, advanced mathematical thinking, teacher education, teacher knowledge, reasoning, evaluation, teacher candidate education, technology, mathematics teaching, fractions, task design, cognitive demand, and reflection. When analyzed by country, it has been noticed that the USA, Australia, and Turkey are the countries that produce the most articles. The bibliometric analysis of the articles on mathematical thinking revealed a four-cluster structure formed according to the relationships of the keywords reflecting the articles. These sets are recognition, development, advanced mathematical thinking, and technology. It is thought that this study on the dynamics of mathematical thinking will help researchers, teachers, and students have an idea about the areas that need research and make plans accordingly.

Bibliometric analysis, mathematical thinking, mathematics education

“P4C”: DEVELOPING INQUIRY AND REASONING SKILLS IN PRIMARY SCHOOL AGE

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Today's society is characterized by rapid change, easy access to information, yet a noticeable decline in critical thinking. Philosophy is the art of questioning and making sense of the fundamental questions of human life. This study presents the “Philosophy for Children Teaching Program” aimed at enhancing the critical thinking, inquiry, and social skills of 4th-grade primary school students. The program spans 40 lesson hours (10 weeks) and draws from Lipman's “Philosophy for Children” (P4C), Vygotsky's sociocultural learning, and Dewey's experience-based education approaches. Developed using a design-based research method, the program encompasses needs analysis, a theoretical framework, and design phases. It is structured around three core competencies (Thinking, Language-Communication, Social Skills) and five sub-competencies, covering 10 themes such as Logic, Human Rights, and Ethics. Each theme is supported by age-appropriate activities like “Logic Detectives” and “My Fictional World.” The goal is to enable students to recognize the current situation, generate rational solutions to problems, and develop ethical sensitivity. Trickey and Topping's (2004) meta-analysis confirms that philosophical discussions improve cognitive skills by 20%. The program aims not only to boost students' academic success but also to foster their development into conscious and compassionate individuals. Findings indicate that philosophical education at an early age enhances inquiry courage, creative thinking, and ethical awareness, providing deeper understanding compared to traditional education. This study proposes an innovative approach to education, encouraging children to view societal issues from multiple perspectives and lead meaningful lives. Assessment and evaluation in the program are conducted through thought journals, self-assessment cards, and teacher observation forms.

Philosophy for children, critical thinking, inquiry, primary education, P4C

USE OF VIBRATO TECHNIQUE IN KEMANE

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When the studies conducted on the usage characteristics of the vibrato technique on the kemane instrument are examined, it is seen that there are unclear statements on the technique; its construction style, the size of the oscillations, number of oscillations and notation. In this context, this study aims to obtain clear information on the construction style of the vibrato technique on the kemane, the size of the oscillations, the number of oscillations and the determination of the symbols required for notation and to present study suggestions on how this technique can be used in basic level education. This research is a case study within the discipline of qualitative research. Within the scope of the research, a source scan was first conducted and both written sources and video recordings of master performers on the internet were examined. The data obtained were then analyzed using the descriptive analysis method. In addition, the voice recordings of the master performers were loaded into a program called Sonic Visualiser, and the lower and upper frequencies of the oscillations seen here in graphic form were determined in hertz (hz). While using this program, the pitch contour Pyn plugin created by Matthias Maunc and Simon Dixon was also added to the program. Then, the obtained frequencies were converted to cents using the formula created by Mustafa Kemal Karaosmanoğlu using the Excel program. In this way, the oscillation size of the vibrato technique was calculated. Expert opinion was obtained regarding the suitability of the etudes created within the scope of the study for basic level kemane education. As a result, it was understood that there are two different ways of performing the vibrato technique in kemane performance. In the first of these, it was determined that the tip of the finger that presses the string while the wrist is moving up and down is moved in a circular manner on the keyboard without sliding, and in the other, the fingertip is slid up and down without exceeding a semitone. Finally, etudes were created on how the technique can be used in kemane education.

Kemane, slide vibrato, oscillation

A STUDY ON MICROPLASTIC POLLUTION AWARENESS

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Plastic is a polymer made from materials left over from the processing of crude oil, natural gas or organic materials such as cellulose. Plastic is derived from the Greek word plastikos, which means formable. In 1905, the age of plastic began when plastic was produced completely synthetically for the first time. It took its place in the industry as a cheap, useful, and durable material, and chemical companies made serious investments in the development of new derivatives. The fact that the plastics produced are often disposable and remain intact in nature for many years has led to the emergence of plastic pollution over time. Today, studies reveal that plastic pollution threatens life in micro dimensions and various measures are taken. Student education is important to prevent plastic pollution. For this reason, a survey study was conducted in the 2024–2025 academic year using the scale developed by Güleşir (2021) in order to measure the awareness of microplastic pollution of pre-service science teachers and science teachers receiving master's degree education studying at a state university in Anatolia. The sample consisted of 45 female and 15 male students. Accordingly, it was seen that the microplastic awareness of the participants in the study was high. When the data were examined in detail, it was determined that “awareness of the effect of microplastic awareness on living things”, which was examined in the second sub-dimension, created a statistically significant difference in favor of both women and those who took environmental courses. It was seen that there was no statistically significant difference in the level of awareness of microplastic pollution with the grade level (2, 3, 4, and master degree).

Pre-service science teacher, likert scale, microplastic pollution

PROGRAMMED MUSIC UNDERSTANDING IN THE ANTHROPOCENE AGE

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The study aims to examine the historical transformation of the concept of programmed music within a framework extending from the Romantic Period to the Anthropocene Age. While nature, a theme of programmed music in the Romantic Period, was shaped around individuality, emotionality and sublimity, it was developed with a narrative and descriptive language by the composers of the period. During this period, music glorified nature as an aesthetic object and aimed to establish an emotional bond with the listener. In the Anthropocene Age, it can be stated that a radical rethinking is required in musical practices by indicating that the impact of humans on the earth has reached the level of a geological force. In this study, the programmed music approaches of the Anthropocene Age composers, shaped by ecological concerns, are comparatively examined, starting from the nature descriptions of the Romantic Period. While the Anthropocene Age composers represent natural elements musically, they establish an ethical discourse that calls the listener to environmental awareness and responsibility. In this approach, programmed music moves away from Romantic narrative patterns and turns to a perspective that re-questions the relationship between nature and humans. Shaped around the questions of how subject-object relations in program music are redefined, how nature representations are processed, and how music becomes a tool of intellectual intervention in the Anthropocene, the study emphasizes the transformation and changes in the understanding of program music in the context of two periods through comparative analyses.

Programmed music, romantic period, anthropocene

MUSICAL FAMILIARITY FROM THE PERSPECTIVE OF MORPHIC RESONANCE

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The study aims to discuss the dimensions of musical memory, intuitive familiarity and collective musical consciousness in the context of musicology by considering Rupert Sheldrake's morphic resonance theory in theoretical terms. Morphic resonance suggests that structural patterns formed in the past create a kind of intuitive "echo" when similar forms are encountered. According to this theory, melodic, rhythmic or formal structures that have emerged before can shape today's musical perception with an effect beyond time and space. Within this framework, musical memory is evaluated not only as a collection of individual experiences but also as a collective perception environment shaped by the morphic fields formed by the musical forms of the past. Morphic resonance is particularly examined in relation to the feeling of melodic familiarity. The fact that listeners perceive a melody they have not heard before as familiar or give universal reactions to certain instrumental sounds cannot be explained solely by cultural learning or tonal system habits. This situation suggests that morphic fields formed by musical forms that have been repeated frequently in the past are still effective today. In this study, the interpretability of the theory of morphic resonance from a musicological perspective is questioned; at the same time, the explanatory possibilities and limitations of the concept are critically evaluated. The theoretical context is suggested as an alternative intellectual ground to make sense of the intuitive dimension of musical experience of the study, highlight the most significant findings, and briefly discuss the conclusions and implications.

Morphic resonance, musical familiarity, musical memory

A CHILD WITH HEARING LOSS IN DEAF FAMILY: AN ECOLOGICAL PERSPECTIVE

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Approximately 10% of children with hearing loss are born into families in which at least one parent is Deaf or hard of hearing. The language and communication development of these children may differ from those with hearing parents. While a rich linguistic environment is essential for all children, this process can be more complex for those raised in Deaf families. According to the Bioecological Systems Theory, an individual's development is shaped not only by their environment but also by broader social and cultural systems that surround this environment. In this context, language development is not solely dependent on the parents' ability to speak; but also, by cultural and societal influences (Bronfenbrenner, 2000).

Children with hearing loss growing up in Deaf culture may adopt sign language, spoken language, or bilingual/bicultural approaches. There is strong evidence that children supported through bilingual/bicultural approaches demonstrate more positive outcomes in various developmental domains. While parental communication preferences shape children's communicative, cognitive, and academic development, challenges remain in implementing these approaches effectively and ensuring early access to education in Türkiye.

This case study examines the developmental context of a child with hearing loss and Deaf parents within the framework of ecological systems theory. Data were collected through semi-structured interviews, observations in educational settings, documents, and a researcher's journal. The data were analyzed using content analysis in alignment with the conceptual framework of the theory. The findings will be presented by detailing the microsystemic, mesosystemic, exosystemic, and macrosystemic factors influencing the child's development.

Bilingual/bicultural approach, deaf culture, early intervention, children with hearing loss

INVESTIGATION OF EARLY LITERACY EXPERIENCES OF A CHILD WITH HEARING LOSS

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Reading and writing skills begin to develop from the first years of life. In other words, oral language, phonological awareness, word recognition, rapid automatic naming, and name writing skills are the basic early literacy skills that develop before formal literacy instruction begins. The development of these skills is important for academic success, especially reading and reading comprehension in the following years. Research shows that children with hearing loss go through similar early literacy development processes as their peers with normal hearing, but they experience delays in this process compared to their peers. Early literacy experiences at preschool level are shaped in two main contexts: school and home environment. The home environment, which is the social context in which children interact most frequently and naturally with spoken and written language, plays a decisive role in early literacy development. Considering that children with hearing loss need more environmental support in this process, the home environment is a much more critical context for these children. In this context, the aim of this study is to examine the early literacy experiences of a child with hearing loss in the home environment. The research was designed as a case study. The participants were the child with hearing loss and the family. data were collected through observations, interviews and documents. In this paper, as a result of the analysis of the data, the characteristics of the early literacy experiences of the child with hearing loss in the home environment will be discussed.

Early literacy, hearing loss, child with hearing loss

EXAMINING THE WRITING AWARENESS AND BASIC WRITING SKILLS OF FIRST GRADE PRIMARY SCHOOL STUDENTS

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The aim of the study is to examine the print awareness and basic writing skills of first grade primary school students according to the variables of pre-school education, gender, socioeconomic level and school starting age. This research was conducted according to the descriptive survey model. The study group of the research conducted in Ankara was determined by criterion sampling, one of the purposeful sampling methods. 116 first grade primary school students participated in the study and the Print Awareness and Basic Writing Skills tests in the EGBA–Early Literacy Development Assessment Tool were used to collect data. These tests were administered to each student individually in two sessions in two different time periods. The data were analysed with statistical analysis software in computer environment. According to the results of the study, 51% of the students in the study group received pre-school education; 49% did not receive pre-school education. It was determined that the students had high levels of print awareness and basic writing skills. It was understood that the writing awareness levels of the first grade primary school students participating in the study did not differ significantly according to their gender, but differed significantly according to their pre-school education status and this difference was in favour of the students who received pre-school education. In this direction, it can be stated that the print awareness of first grade students who received pre-school education is higher than the students who did not attend pre-school education. It was determined that print awareness levels differed significantly according to socioeconomic levels.

Early literacy, print awareness, basic writing skills

AN INVESTIGATION INTO PRIMARY SCHOOL TEACHERS' AWARENESS LEVELS REGARDING READING DIFFICULTIES

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Reading is a complex mental skill that integrates cognitive, linguistic, and perceptual processes. Students may encounter various challenges during the reading process. These difficulties include word or syllable repetition, the addition of syllables or words, and reading letter by letter. This study aims to examine the awareness levels of primary school teachers regarding reading difficulties. The study was conducted using a case study design, which is one of the qualitative research methods. The research group consisted of 44 volunteer primary school teachers working in Samsun during the fall semester of the 2022–2023 academic year. A semi-structured interview form, developed based on expert opinions, was used as a data collection tool. This form included six demographic questions and five open-ended questions. The data obtained were analyzed through content analysis using the Maxqda program. According to the research results, awareness levels regarding reading difficulties varied among teachers. The findings revealed that the majority of participants had limited knowledge about reading difficulties and lacked familiarity with methods, practices, and activities that could help address such challenges. One of the primary reasons for this is that most teachers had not received sufficient training on reading difficulties during their undergraduate studies or through in-service training programs. Additionally, a significant portion of the participants equated reading difficulties solely with dyslexia, indicating some conceptual misunderstandings in this area.

Primary school teacher, reading disability, reading disability awareness

INDIVIDUAL AND SOCIAL PROBLEMS AS DESTRUCTIVE ELEMENTS IN THE NOVEL “KARLI DAĞDAKI ATEŞ”

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Refik Halid Karay, one of the prolific authors of Turkish literature, has written works on a wide range of themes and published literary pieces on nearly every subject. In his writings, Karay presents slices of daily life from people of all walks of life and skillfully portrays the sociocultural characteristics of individuals living in various regions, both in his fictional works and journalistic writings. Thanks to his background as a journalist, Karay was able to delve into the fine details of society and explore the relationship between the individual and society in depth. One of the novels where he performs such an analysis is *Karlı Dağdaki*. In this novel, against the backdrop of a love story, the author critiques the social structure and value system of the period. Karay addresses numerous social issues in this work. For instance, he explains the low social status and roles of women within a traditional societal framework. The novel also explores class conflicts brought about by the dominance of the bourgeoisie over rural people, as well as the contrast between natural life and modern/civilized life. Centered on the love story of Yusuf and Binnur—deemed inappropriate by social norms—the novel emphasizes individual differences and how people are evaluated based on lifestyles shaped by their respective habitus. Through the relationship between Yusuf and Binnur, individual and societal problems are conveyed using psychological and sociological references. This study will analyze Refik Halid Karay’s *Karlı Dağdaki Ateş* from a sociological perspective, within the framework of Pierre Bourdieu’s concept of habitus.

Karlı Dağdaki Ateş, individual, society, social criticism, habitus

THE EFFECTS OF THE P4C APPROACH ON THE DEVELOPMENT OF GIFTED STUDENTS: A SYSTEMATIC REVIEW

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The aim of this study is to systematically examine the effects of the Philosophy for Children (P4C) approach on the development of gifted students. Within the scope of the research, open-access articles published in Turkish and English between 2015 and 2024 were reviewed, and six studies meeting the inclusion criteria were analyzed using content analysis. The findings revealed that the P4C approach has been primarily investigated in relation to its effects on academic skills such as language development, critical thinking, and problem-solving in gifted students. Furthermore, it was determined that P4C practices also support social-emotional competencies, including empathy, self-awareness, and social adaptation. Additionally, positive increases were observed in students' intrinsic motivation towards learning and in-class interactions. Based on the analyzed data, it was concluded that P4C is a strong pedagogical approach that contributes significantly to the holistic development of gifted individuals. Suggestions for future research are also presented.

Philosophy for Children (P4C), gifted students, systematic review

PRIMARY SCHOOL TEACHERS' OPINIONS AND EXPECTATIONS REGARDING STEM EDUCATION: A PHENOMENOLOGICAL STUDY

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STEM (Science, Technology, Engineering, and Mathematics) is an educational approach that starts from basic education and extends to higher education in which science, technology, engineering and mathematics are taught through interdisciplinary studies (Akgündüz et al., 2015). An increase in employment in the country can be achieved with high-quality STEM education, therefore, implementers need to integrate the STEM approach into the learning environment in the most effective way (Bybee, 2010; Stohlmann et al., 2012). Teachers have important responsibilities in effectively integrating STEM education into learning environments. Primary school teachers' opinions on STEM play an important role in determining the quality of this education. Based on this, the aim of the research is to reveal the opinions and expectations of primary school teachers regarding STEM and STEM-based course activities. The study was conducted in a phenomenological design in accordance with the qualitative research approach. Phenomenological design is frequently used in subjects that are aware of but have not been developed in depth (Merriam, 2009). The study focused on the individual experiences of primary school teachers in STEM education and how they interpreted these experiences. The participants of the study consisted of 20 primary school teachers working in Ordu province in the 2024-2025 academic year. A semi-structured interview form developed by the researchers was used as the data collection tool in the study. The data obtained were analyzed with content analysis. The findings, conclusions and recommendations obtained from the study will be shared during the oral presentation.

STEM education, teacher views, phenomenological research

AN EXPLORATION OF CONVERGENT AND DIVERGENT THINKING SKILLS AMONG PRE-SERVICE PRIMARY SCHOOL TEACHERS

ELİF BÜŞRA UZUN, ERZINCAN BINALI YILDIRIM UNIVERSITY, ERZINCAN, TURKIYE

PINAR BULUT, GAZI UNIVERSITY, ANKARA, TURKIYE

In the 21st century, education systems aim not only to transfer knowledge but also to equip individuals with higher-order cognitive skills such as critical thinking, problem-solving, and creativity. Within this context, convergent and divergent thinking skills are considered fundamental mental processes that need to be cultivated in pre-service teachers. Convergent thinking is defined as a logical and systematic process focused on arriving at a single correct answer, and it is particularly prominent in tasks involving analysis, evaluation, and decision-making. In contrast, divergent thinking is a creative cognitive process that emphasizes flexibility and originality, aiming to generate multiple and unique solutions rather than a single correct one. It plays a crucial role in creative problem-solving, idea generation, and thinking beyond conventional boundaries. Given the importance of both thinking styles in daily life and professional practice, it can be argued that classroom teachers—who play a vital role in nurturing children's creativity, especially at the primary level—should possess and model these skills. Therefore, identifying the convergent and divergent thinking of pre-service teachers may provide valuable insights. Thus this study aims to examine the convergent and divergent thinking skills of pre-service primary school teachers. Designed as a descriptive study, it involves participants from two state universities enrolled in primary teacher education programs. To assess their thinking skills, the "Alternate Uses Test" and the "Ideational Fluency Test" were employed. As data analysis is still underway, the findings and conclusions will be presented at the congress, along with recommendations based on the results. STEM education, teacher views, phenomenological research.

Divergent thinking, convergent thinking, pre-service teachers

BRAIN DRAIN AND EDUCATION: PRE-SERVICE TEACHERS' PERCEPTIONS, MOTIVATIONS, AND BARRIERS

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This study explores the perceptions, motivations, and perceived barriers related to brain drain among pre-service teachers studying at a small-scale public university in Turkey. Designed as a qualitative research, the study utilizes semi-structured interviews and employs content analysis to interpret the data. The analysis revealed three major themes: (1) Perceptions, (2) Motivations, and (3) Barriers.

Most participants perceive living abroad as safer, freer, and more predictable. They associate staying in Turkey with political pressures, uncertainty about the future, and lower living standards. Motivational factors identified include higher income opportunities, professional development, and improved quality of life. On the other hand, barriers such as language proficiency, family ties, lack of access to reliable information, and challenges of cultural adaptation were found to complicate migration decisions.

The findings suggest that pre-service teachers seek more qualified personal and professional lives on a global scale, yet the current structural conditions in Turkey do not adequately support these aspirations. The study emphasizes that educational policies should move beyond merely preventing brain drain and focus on developing comprehensive strategies to reverse it.

Brain drain, pre-service teachers, motivation, perception, barriers

INVESTIGATING TECHNOLOGY-BASED CONTENT IN THE MATHEMATICS CURRICULUM OF THE CENTURY OF TÜRKİYE EDUCATION MODEL

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This study aims to examine the technology-oriented content within the mathematics curricula (primary, middle, secondary) developed under the Century of Türkiye Education Model and to analyze how this content is structured by grade level and theme. The study employs the qualitative research method of document analysis. The mathematics curricula published in 2024 by the Ministry of National Education were systematically examined and analyzed based on predefined themes. In the primary curriculum, students are introduced to basic digital tools, encouraged to participate in online activities and supported in producing simple digital content, with digital materials used as learning aids. The middle school curriculum emphasizes data collection, modeling and graphing using digital tools; it also supports online research and digital content creation while incorporating interdisciplinary activities. At the secondary level, digital technologies are used intensively for advanced modeling, algorithm development, statistical research, presentations and reporting, alongside a structured focus on data security, critical digital literacy and interdisciplinary digital projects. Findings indicate that while digital tools in primary education support basic competencies, topics like digital safety, ethics and content creation are underrepresented. In middle school, productivity improves, yet there is a need for broader approaches to algorithmic thinking and digital ethics. In secondary education, although digital competencies are more developed, artificial intelligence and data security require deeper integration. Based on these results, the study recommends enhancing digital safety and ethics activities at the primary level, strengthening coding and critical evaluation at the middle level and developing AI, algorithm and data-oriented interdisciplinary projects at the secondary level.

Mathematics curriculum, technology, The Century of Türkiye Education Model

AN EXAMINATION OF INTERNATIONAL STUDENTS' PERSPECTIVES ON THE CHALLENGES ENCOUNTERED IN THE PROCESS OF LEARNING TURKISH

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This study aims to explore the challenges faced by international students in Turkey during their Turkish language learning process and their strategies for coping with these difficulties. The research was conducted using a case study approach, one of the qualitative research designs. Data were collected through face-to-face interviews with international students enrolled in the Turkish Language Teaching Application and Research Center (TÖMER) at Ordu University, using a semi-structured interview form developed by the researcher. The collected data were analyzed using content analysis. The results indicated that the students experienced the most difficulties in areas such as grammar rules, pronunciation, colloquial language use, cultural differences, and social adaptation. A majority of the participants reported developing individual strategies to overcome these challenges and emphasized the effectiveness of supportive learning environments in the teaching process. Based on the findings, recommendations were made to make Turkish language teaching processes more responsive to the students' needs and to diversify guidance and support services for international students.

International students, Turkish as a foreign language, language learning difficulties

SELF-EFFICACY PERCEPTIONS OF PRE-SERVICE PRIMARY SCHOOL TEACHERS REGARDING INCLUSIVE EDUCATION

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In this study, the self-efficacy perceptions of prospective primary school teachers regarding inclusive education and the impact of these perceptions on their ability to develop instructional strategies and adapt to student diversity were examined. Inclusive education is approached as a holistic framework that aims to ensure the equitable participation of all students in the educational process, regardless of their physical, mental, social, or cultural differences. Within this context, the capacity of teacher candidates to design effective and flexible teaching strategies tailored to diverse learner profiles was evaluated. The research employed a descriptive survey model, and data were collected from undergraduate students enrolled in the primary education department of a faculty of education at a university located in Ordu, Turkey. As a data collection tool, the "Self-Efficacy Perceptions Scale towards Inclusive Education," developed and validated by Şimşek (2019), was utilized. Findings indicate that the majority of prospective teachers exhibit a positive attitude toward inclusive education and perceive themselves as competent in this area. Furthermore, candidates with higher levels of self-efficacy were found to be more capable of developing effective instructional strategies within inclusive teaching processes. Based on these findings, it is recommended that teacher education programs be restructured to better support inclusive practices, emphasizing both theoretical knowledge and practical skills development for teacher candidates.

Inclusive education, self-efficacy, prospective teachers, instructional strategies, student diversity

INVESTIGATION OF PRE-SERVICE PRIMARY SCHOOL TEACHERS' VIEWS ON THE PROCESS OF PREPARING FLIPPED LEARNING COURSE PLANS FOR TEACHING FRACTIONS USING ARTIFICIAL INTELLIGENCE

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This study aims to reveal the views of pre-service primary school teachers on the process of preparing a flipped learning course plan for teaching fractions using artificial intelligence. Phenomenology, one of the qualitative research designs, was used in the study. The study group of the research consists of 30 classroom teacher candidates. A structured form was used as a data collection tool. The applications of the research lasted for two weeks. In the first week of the research, pre-service classroom teachers were informed about the flipped learning model, the stages of the course in accordance with the flipped learning model and the principles of preparing course plans in accordance with this model. In addition, virtual classroom creation tools and artificial intelligence tools that can be used while preparing course plans suitable for the flipped learning model were introduced, and sample flipped course plans prepared for the objectives of the primary school mathematics curriculum were shown. In the second week of the study, pre-service primary school teachers prepared and presented flipped learning course plans for teaching the fraction learning outcomes in the primary school mathematics curriculum by using artificial intelligence tools. At the end of the application, written data were obtained from the participants through a structured form. The data obtained in the study were analysed using content analysis. The data obtained as a result of the research were thematised in terms of the difficult aspects and easy aspects of preparing a flipped learning course plan for fraction teaching; the conveniences and difficulties provided by using artificial intelligence in this process; and the benefits of using the flipped learning model in fraction teaching in terms of teachers and students.

Artificial intelligence, flipped learning model, fractions, mathematics

THE EFFECT OF GASTRO-CULTURAL ATTRACTIVENESS ON DESTINATION IMAGE AND REVISIT INTENTION

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This study aims to determine the effect of gastro-culture attractiveness on the destination image and revisit intention. The population of the research consists of tourists visiting Afyonkarahisar. The data in the study were collected using the survey technique with the convenience sampling method. Data were collected in April 2025 through face-to-face and online environments, and 404 data points were analysed. In the research, gastro-culture, cognitive image, emotional image, and revisit intention scales were used. In the research, the Smart PLS statistical program was used to test the hypotheses, and the structural equation model was used in the analysis of the data. In this context, it was concluded that the gastro-culture attractiveness of the tourists participating in the research positively affects both the cognitive and emotional destination image and the intention to revisit. In addition, it has been determined that the cognitive and emotional destination image of tourists positively affects the intention to revisit.

Gastro-Culture, destination image, revisit intention, gastronomy, Afyonkarahisar

SUSTAINABILITY CONSIDERATIONS FOR UNICEF-ECE 2024 CHILDREN'S BOOKS

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The early years have a significant impact on children's social, emotional, physical, and cognitive development from ages 0 to 8. Children use the experiences they have from their surroundings to develop their creativity, solve issues, empathize, and make sense of the world throughout this time. Children's books are valuable resources for promoting young children's development. Examining early childhood children's books in light of sustainability is the aim of this study. The study was carried out using a qualitative research design and an examination of documents. 34 children's books from UNICEF-ECE 2024 preschool curriculum are being investigated in this context. The research's data was analyzed using descriptive and content analysis, and themes and sub-themes were developed within this framework. Ecological sustainability, social sustainability, and ecological sustainability are the main themes of the study. The subthemes are energy resources, climate awareness and climate change, knowing, loving and protecting living beings, loving and protecting nature/natural environment, environmental cleaning, endangered animals and recycling (ecological sustainability); energy resources, protecting resources and recycling (economic sustainability), values (self-awareness, love, respect, cooperation, belonging to a group, emotions, respect for differences, labor, loyalty) and social roles (social sustainability). In this context, it can be said that the concept of sustainability is included in the Unicef-ECE preschool curriculum with three basic dimensions of sustainability; the most emphasized area is ecological one.

Ecological, social, economic, sustainability, early childhood education

STORIES TOLD BY TEACHER CANDIDATES ABOUT SIENTIFIC EVENTS

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Stories are narratives in which fact and fiction are intertwined. They are also used as teaching tools in education. Woodhouse (2011) states that teaching is a storytelling process. Stories are used in science teaching (Bayer, Hettinger, 2019, Rowcliffe, 2004, Martin, Miller, 1988). In this study, stories were utilized in “The Researcher Teacher” course. “The Researcher Teacher” is a first year course in the primary school teaching program in Mehmet Akif Ersoy University Faculty of Education. The aim of the course is to help teacher candidates recognize the characteristics of an researcher teacher. Stories are the most important evidence of the human journey of curiosity. What is learned, what is wondered, is tried to be explained in stories with extraordinary situations. And of course, there is a scientific explanation for every situation. Mohan (2024), a storyteller and a scinetist, describe some scientific subjects by fairytales in her book named “Why?” We used the fairytales in her book as a lesson material for teaching some sceintific events and concepts. The aim of this research is to enable prospective primary school teachers to plan, prepare and implement the process of teaching scientific subjects through fairy tales. The method of the research is action research. Practices were carried out within the scope of the “Researcher Teacher” course. The study group consisted of first year primary school teacher candidates. 22 students participated in the study, 4 of them were male and 18 of them were female. A storytelling training program was designed. Storytelling training was prepared using creative drama method. Storytelling was planned by utilizing Ramsden, Hollingsworth's (2004) book. A 4-week storytelling training was given by the researcher. In the last week, a sample fairytale was told by the first researcher. Information was given about the activities to be done. It was discussed how to combine fairy tales with scientific topics. Students were divided into groups of two, each group chose a fairytale. They worked on their fairytale and prepared the activities they planned. Then one week later they shared their fairtales in the classroom in a 20-minute period. The fairytale consisted of preparation, i.e. warm-up, fairytale telling and scientific activity. The storytelling was recorded on video. After the activities were completed, the students prepared a report describing the process. In the report, they stated how they prepared and their opinions about the activity. Students' video recordings, researcher notes and students'reports were analyzed. Video recordings were evaluated with the rubric developed by the researchers. The candidates were excited because they were first year students. Some of them wanted to read the story. They tried to make eye contact while telling the story. They mostly told it as they read it and their own additions were limited. They played games in warm-up activities and organized various activities while explaining the scientific event.

Storytelling, teacher candidates, the researcher teacher

PRIMARY SCHOOL 4TH GRADE STUDENTS' USE OF DIGITAL TOOLS IN TEACHING

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Technology is increasingly present in our lives, and the field of education is also affected by these developments. Introducing primary school students to digital tools can impact both their academic achievement and their digital literacy skills. The aim of this research is to examine how year 4 primary school students use digital tools in the teaching process. The research model is phenomenology, a qualitative research approach. The participants in the research will be determined using the convenience sampling method. The participants are year 4 students at a state primary school in Gaziantep, where the researcher works as a primary school teacher. A semi-structured interview form will be used as the data collection tool. Descriptive analysis will be used in the analysis of the data. Findings will be presented according to the analyses obtained. It is expected that the research will conclude that digital tools contribute to the teaching process of year 4 primary school students, but teachers and families need to be conscious of their use in order to use them effectively.

Digital tools, primary school 4th grade students, teaching

COMPARISON OF MIDDLE SCHOOL MATHEMATICS CURRICULA: TÜRKİYE VS. CZECHIA

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NURLANA MEHDİYEVA, ONDOKUZ MAYIS, SAMSUN, TÜRKİYE

In recent years, due to the rapid and remarkable advancements in technology, significant transformations have occurred across nearly all domains, including education and instruction. In light of these developments, it is observed that countries, aiming to enhance their competitiveness in the international arena and gain an advantage over others, are revising their educational curricula in accordance with contemporary requirements. In this context, mathematics curricula are also periodically revised to ensure the acquisition of knowledge and skills that align with current needs. For Turkey, which aspires to become a full member of the European Union (EU), comparing its curriculum with that of a EU member country can provide valuable insights for future curriculum alignment by revealing similarities and differences. The aim of this study is to compare the lower secondary mathematics curricula of Turkey and the Czech Republic in terms of content and objectives. A review of the literature indicates that similar comparative studies have been conducted between various countries (e.g., Borji & Farsani, 2023; Choe & Choe, 1997; Lui & Leung, 2013). This study employs a qualitative research design, specifically a comparative case study approach (Stake, 2000). Accordingly, the mathematics curricula and related documents of both countries were subjected to qualitative content analysis and descriptive analysis. The analysis yielded several key findings. While the Czech basic education curriculum structures the educational area of Mathematics and Its Applications around four main themes, the Turkish lower secondary mathematics curriculum comprises seven main themes. In terms of objectives, the Czech curriculum emphasizes the development of ten key competencies, whereas the Turkish curriculum focuses on the enhancement of five domain-specific skills. In conclusion, both curricula exhibit similarities and differences, which may be attributed to the cultural, historical, and economic contexts of the respective education systems.

Comparison, mathematics curriculum, middle school

TRACES OF GEOGRAPHY IN THE MUNICIPAL LOGOS OF ORDU PROVINCE: AN ANALYSIS OF PHYSICAL AND HUMAN GEOGRAPHICAL ELEMENTS

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This study aims to analyze the representation of geographical elements in the logos of municipalities in Ordu Province. In response to the risk of cities losing their distinctive identities amid modernization and globalization processes, the study investigates how and to what extent local natural and human elements are reflected in municipal logos. This study aims to analyze the representation of geographical elements in the logos of municipalities in Ordu Province. In response to the risk of cities losing their distinctive identities amid modernization and globalization processes, the study investigates how and to what extent local natural and human elements are reflected in municipal logos. The research employs a qualitative content analysis method. Official logos of 20 municipalities (19 district municipalities and the metropolitan municipality) were examined, and the figures within these logos were evaluated in terms of physical and human geographical features. Interviews with municipal officials and field observations were conducted to enhance the reliability of the analysis. The study identified a total of 97 figures, of which 66 were related to physical geography and 31 to human geography. Hazelnut, mountain, river, and sun motifs emerged as the most frequently used elements. However, in some logos, the absence of locally distinctive features was noted. Overall, the findings reveal that municipal logos in Ordu Province play an important role in reflecting the geographical identity of the cities.

Municipal Logos, geographical representations, physical and human geography elements, urban identity and branding, Ordu

FAMILY-CENTERED EARLY EDUCATION PROGRAMS FOR CHILDREN WITH HEARING LOSS IN TURKIYE: A CRITICAL EVALUATION

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Hearing loss can lead to delays in linguistic, social-emotional and cognitive development. However, when early intervention services are accessed in a timely manner, these delays can be minimized. Early intervention for children with hearing loss (CHL) consists of diagnosis, medical/audiological intervention, and family-centered early education (FCEE). Globally, efforts have been made to standardize early intervention practices and establish guidelines for the delivery of services to CHL. In Türkiye, although diagnosis and medical/audiological interventions for parents of CHL are conducted at a level close to international standards, there is no widespread family education program that incorporates FCEE principles and is supported by a formal legal framework. This gap presents challenges in ensuring consistency in the delivery of FCEE services. The aim of this study was to critically evaluate how FCEE practices were implemented across Türkiye and to examine their alignment with established standards. To this end, studies conducted with families of CHL in Türkiye were reviewed, and FCEE standards were reassessed. A systematic review method was employed. The inclusion criteria was as follows: (a) studies must focus on the 0–3 age group, (b) they must involve parents of CHL, (c) they must be conducted in Türkiye, and (d) they must be based on empirical data. The data analysis process is ongoing. The findings are expected to highlight the need for further research in this field and to serve as a starting point for the development and widespread implementation of systematic, accessible, and high-quality family education programs in Türkiye.

Hearing loss, early intervention, family education, family-centered early education

AN INVESTIGATION OF PRE-SERVICE TEACHERS' ATTITUDES TOWARDS ENVIRONMENT

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The escalation of environmental problems to critical levels on a global scale has made the development of individuals' environmental attitudes at an early age a significant educational objective. Pre-service teachers play a pivotal role in fostering environmental awareness among future generations. Accordingly, identifying pre-service teachers' attitudes toward the environment is a fundamental requirement for developing educational programs aimed at enhancing the effectiveness of environmental education. From this perspective, the aim of the present study is to examine pre-service teachers' attitudes toward the environment. In line with this aim, the study was designed as a cross-sectional survey and implemented with 173 pre-service pre-school teachers. Based on the results of the quantitative analysis, it was determined that gender is a significant factor influencing the level of environmental attitudes, with a tendency favoring female pre-service teachers. However, it is noteworthy that prior participation in any environmental education programs and membership in environmental clubs were found to have no significant effect on environmental attitude levels. Additionally, the age of pre-service teachers was identified as an influential factor, with environmental attitudes improving as age increases. In light of these findings, considering the complex nature of the attitude construct and the importance of environmental education, it may be suggested that Future research should investigate additional personal, contextual, and pedagogical factors that may contribute to the development of environmental attitudes among pre-service teachers, in order to better inform the design of effective environmental education interventions.

Environment, attitude, teacher education

"LOSS OF VALUES AND CRITIQUE OF MODERNISM IN ŞÜKRÜ ERBAŞ'S POETRY"

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BUŞRA ATAKER GÜNEŞ, MARDIN ARTUKLU UNIVERSITY, MARDIN, TURKIYE

In the face of modern life practices, the individual—suppressed, controlled, and stripped of traditional values—experiences isolation both in their social life and within themselves. Modernism distances the individual from their own reality and confines them within a rigid set of rules. Cities, as the primary spaces of modern life, become uncanny places that intensify the individual's loneliness, anxiety, and sense of alienation. Surrounded by concrete and steel, and enclosed by towering skyscrapers, the individual's relationship with nature and all that is natural weakens and nearly breaks. This rupture is not only physical but also brings about a deep psychological alienation and existential solitude. With modernization, the individual grows lonelier and estranged from their essence and reality. As they try to adapt to the chaotic and destructive atmosphere of the city, they become alienated from both themselves and their surroundings through mechanized daily routines. The psychological dilemmas of individuals alienated from themselves and from society are central thematic concerns in literary works. Contemporary Turkish poet Şükrü Erbaş explores the loneliness, pain, and inner conflicts of modern individuals in his poetry, highlighting the tragedies of people from various social backgrounds. Addressing the loss of values experienced by urban dwellers through a variety of themes, Şükrü Erbaş centers his poetry on the psychological and physical pressures that urbanization and modern life impose on individuals. By portraying the monotonous and standardized lifestyle of the modern urban individual, Erbaş delivers a profound critique of modern existence. This study will examine, from a sociological perspective, the psychological turmoil and loneliness of urban individuals in Erbaş's poetry, who have lost their pure and sincere emotions and transformed into entirely different personas under the influence of modern life.

Şükrü Erbaş, Turkish poetry, modern life, loss of values, alienation

A GAMIFICATION-BASED DESIGN THAT ENCOURAGES ENGAGEMENT IN ONLINE LEARNING ENVIRONMENTS

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This study focuses on a gamification-based design to increase student engagement in an online learning environment and indirectly improve academic success. Although online learning overcomes physical space and time limitations, it can negatively affect learning performance due to low student engagement. It is stated in the literature that engagement is related to students' interactions with the learning content, frequency of participation in activities, and time spent online. In this context, gamification's potential to attract attention, increase motivation, and encourage engagement stands out as an important solution for online learning environments.

The gamification design developed in this study aims to encourage students' behavioral and cognitive participation, such as system logins, test success, discussion posts, document review, and video watching. Students' behavior scores will lead them to badges with levels (novice, amateur, master, champion, star, legend, etc.) for different attributes (activity, learning, testing, communication, etc.). Some special levels (e.g., master, legend) will earn students a tangible badge-keychain with a unique serial number. These serial numbers will provide students with personalized learning experiences by providing access to locked content.

The design process followed Marczewski's Gamification Design Model. At the beginning of the design, the problem, success, and users were defined. Marczewski's player types were used to determine user profiles. Fogg's Behavior Model and Eyal's Hook Model were adopted as guiding frameworks in the design of the player journey. An interactive action-feedback loop was created by determining behaviours, game mechanics (point, leaderboard, badge, locked content, etc.), emotions, and motivational elements. This process is carried out with the LevelUp-Gamification module integrated into the Moodle system. This design aims to increase student motivation and develop engagement in online learning.

Online learning, gamification, student engagement, motivation

METHODS AND APPLICATIONS IN TURKISH SPEECH RECOGNITION AND SPEECH-BASED EMOTION CLASSIFICATION

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In recent years, the increasing interaction between humans and computers has highlighted the need not only to understand the content of speech but also to analyze its emotional aspects, driven by advancements in natural language processing and machine learning. For morphologically rich languages like Turkish, which present unique challenges, research in this field has become even more critical. This study examines the main application areas, methodologies, and performance metrics of Turkish speech recognition and emotion classification research conducted between 2020 and 2025. These studies focus on applications in human-computer interaction, call centers, and healthcare. In speech recognition systems, traditional methods such as Hidden Markov Models and Dynamic Time Warping and deep learning-based approaches including CNNs, RNNs, and Transformers are compared. The agglutinative structure of Turkish, its phonetic diversity, and the limited availability of open-access datasets emerge as major challenges. For emotion classification, the extraction of audio features such as pitch, energy, and MFCCs and the use of classifiers such as SVMs, LSTMs, and Multilayer Perceptrons are emphasized. Studies on Turkish speakers show that cultural and linguistic contexts influence emotional expression. To address data scarcity, data augmentation and transfer learning techniques, including BERT and Wav2Vec, have proven effective. Hybrid models combining feature-based methods and deep learning have achieved accuracy rates up to 89%. Performance is typically reported using metrics such as accuracy, UAR, or F1-score. In conclusion, recent studies confirm that deep learning methods significantly enhance performance in both speech and emotion recognition tasks for the Turkish language.

Speech recognition, emotion analysis, deep learning, Turkish NLP, acoustic features

SHARENTING: VIRTUAL ENVIRONMENT LONELINESS AND PERCEIVED SOCIAL SUPPORT IN PREDICTING SOCIAL MEDIA ADDICTION IN PARENTS

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The purpose of this study was to examine the relationship between perceived social support, virtual environment loneliness, and social media addiction of parents who share their children's photos on social media. The study sample comprised 234 parents who have sharenting behavior. Data were collected from these participants using the Multidimensional Scale of Perceived Social Support (MSPSS), Social Media Addiction Scale – Adult Form, Virtual Environment Loneliness Scale (VELS), and a demographic information form. The dependent variable is social media addiction, and the independent variables are virtual environment loneliness (virtual socializing–virtual sharing–virtual loneliness) and perceived social support. The relational screening model, one of the quantitative research methods, was used in the study. After the assumption tests were performed, Pearson Moment correlation coefficient and multiple linear regression analysis were performed. Statistical analyses were performed using SPSS 22.0 program. When the Pearson Moment correlation coefficients were examined, it was seen that the independent variables of virtual sharing and virtual socialization had a significant relationship. In multiple regression analysis, virtual sharing and virtual socialization variables together explain 31% of the total variance in social media addiction ($R = .554$, $R^2 = .31$, $p < .001$). According to the standardized regression coefficient (β), the relative importance order of predictor variables on social media addiction is virtual sharing and virtual socialization. As a result, as virtual sharing and virtual socialization scores increase, social media addiction scores in parents also increase.

Perceived social support, virtual environment loneliness, social media addiction, sharenting, parents

WHO IS MORE LIKELY TO HAVE HIGHER MARITAL SATISFACTION, AND WHO HAS A GREATER TENDENCY TOWARD DIVORCE? THE ROLE OF SELF-DIFFERENTIATION AND EXPERIENTIAL AVOIDANCE

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The purpose was to examine the associations between experiential avoidance, self-differentiation (DoS), marital satisfaction, and marital instability (divorce proneness) from an integrative perspective. The present study formulated a main hypothesis: Experiential avoidance and marital satisfaction will mediate the structural path from DoS to divorce proneness. Individuals with greater DoS will report lower experiential avoidance, higher marital satisfaction, and lower marital instability (divorce proneness). DoS refers to an individual's ability to differentiate his/her cognitions from emotions (intrapsychic dimension) and keep balance between togetherness and separateness within intimate relationships (interpersonal dimension). Experiential avoidance refers to an unwillingness to experience challenging emotions, cognition, imaginations, etc. Marital instability refers to their actions toward dissolution. A total of 70 males (30%) and 160 females (70%) participated in the study. The age of the participants was 36.63 years (SD = 6.68). In terms of marital duration, the majority were between 6 and 10 years (27.8%), 11 and 15 years (25.7%), and 1 and 5 years (22.6%). The majority have two children (40.4%) or one child (34.3%). We preferred purposive sampling (being married). We used the Differentiation of Self-Inventory Short Form (DSI-SF), the Acceptance and Action Questionnaire-II (AAQ-II), the Relationship Assessment Scale (RAS), and the Marital Instability Index (MII). A moderate model fit confirmed our hypothesis that the path from DoS ($\beta = -0.07$, $p < 0.010$, [CI = -0.10, -0.04]) to divorce proneness/marital instability (via experiential avoidance + marital satisfaction) was significant. In sum, when our participants had higher scores of DoS, they tended to report lower experiential avoidance attitudes and greater marital satisfaction with lower risk of marital instability (divorce proneness).

Marital satisfaction, divorce proneness, self-differentiation, marital instability

INVESTIGATION OF ELEMENTARY SCHOOL STUDENTS' SELF-EFFICACY PERCEPTIONS OF READING COMPREHENSION AND CRITICAL READING SKILLS

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Critical reading is a skill that requires students to think more deeply about a text in order to understand and analyze it; to read between the lines and beyond the lines instead of focusing on reading only the lines. The purpose of this study is to examine the relationship between the self-efficacy perception of fourth-grade primary school students regarding reading comprehension and critical reading skills. The relational screening method was preferred in the study. 281 primary school fourth grade students participated in the study conducted in Kırıkkale city center. Two different data collection tools were used to collect the data of the study. (1) Critical Reading Skills Scale; (2) Self-Efficacy Perception Scale for Reading Comprehension. It took an average of fifty minutes for a student to answer both scales. The obtained data were analyzed with a computer-aided statistics program. The results of the research show that there is a positive and low level significant relationship between fourth grade primary school students' self-efficacy perceptions about reading comprehension and their critical reading skills. It was determined that the self-efficacy levels of the students participating in the study differed in favour of girls. Students' self-efficacy for reading differed in favour of those who read books every day. In the study, it was concluded that the critical reading levels of the students differed in favour of female students in terms of gender and in favour of students who received pre-school education in terms of whether they received pre-school education or not.

Reading comprehension, critical reading, self-efficacy, reading instruction

LEARNING EXPERIENCE DESIGN IN EDUCATIONAL TECHNOLOGIES FOR PRIMARY EDUCATION

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In recent years, the quality and diversity of digital educational materials have significantly increased, necessitating these materials to go beyond being mere tools for information delivery. Particularly, the evolving learning needs of primary school students—who are growing up in a digital environment—along with changes in their attention, motivation, and interaction patterns, reveal the inadequacy of traditional material design approaches. In this context, developing a learner-centered approach to digital educational material design at the primary school level has become critical. This study conceptually examines the design process of digital educational materials from the perspective of Learning Experience Design (LXD). The LXD approach integrates cognitive sciences, user experience (UX), and pedagogical principles, emphasizing the needs, contexts, and interactions of primary school students with digital materials. Within this framework, the study discusses how experience-based design principles can be integrated into digital material development processes through a theoretical lens, focusing on key concepts such as empathy, personalization, meaningfulness, and interactivity. Consequently, it is emphasized that in order to provide effective and lasting learning experiences for primary school students, not only the content but the entire learning process must be designed holistically and with an experience-centered approach.

Learning experience design, experience-based design, instructional design

BIBLIOMETRIC ANALYSIS OF POSTGRADUATE THESES ON DATA LITERACY IN TURKEY

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As the amount of data increases in the information age, the concept of data literacy, which is defined as the ability to read, understand and use data, comes to the fore. It has become important to increase the individual's ability to read, understand, evaluate and use data and information in different ways. Today, most of the research on defining data literacy competences and developing initiatives to support them are carried out by higher education. In this study, theses on data literacy will be analysed. In the study, bibliometric analyses of the theses identified by using the screening method, one of the qualitative research methods, were made and interpreted. The theses were reached by scanning the keywords 'Data Literacy' and 'Data Literacy' from the National Thesis Centre Web page. After scanning the theses, 15 master's theses, 6 doctoral theses and 21 theses in total were identified. As a result of the data analysis, it was concluded that the relevant postgraduate theses were carried out in 15 different universities and Gazi University (3) and Hacettepe University (3) were the universities where the study topic was the most common. It was determined that most of the theses were concentrated in the Institute of Educational Sciences (11) on the basis of institute, in the Department of Educational Sciences (9) on the basis of main science branch, in the Department of Educational Administration (3), and in the Department of Educational Administration and Supervision (3) on the basis of science branch. In addition, it was determined that most of the theses were prepared by women (17) and under the supervision of Prof. Dr. (9). It is aimed to contribute to the literature by compiling the data related to the bibliometric analyses of the theses on data literacy, which has become a subject of interest in the world and Turkey in recent years.

Data literacy, postgraduate theses, document analysis, bibliometric analysis

CIRCUITS OF LEARNING: A THEMATIC EXPLORATION OF PHYSICAL COMPUTING IN SCIENCE EDUCATION

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This study aims to analyze the objectives, interventions, outcomes, and recommendations of various studies focused on physical computing applications in science education. The literature review identified 49 articles, conference papers, book chapters, and review studies published between 2017 and 2025 in the Scopus and Web of Science (WoS) databases. The selected studies will be assessed based on specific inclusion and exclusion criteria, and those included in the analysis will undergo thematic analysis in relation to the research questions.

In the analysis, the studies will be categorized according to their stated purposes for integrating physical computing into science education, the pedagogical methods and technological tools employed, the reported impacts on teaching and learning processes, and the instructional recommendations proposed. By identifying emerging patterns and trends, this study seeks to provide a comprehensive overview of the current research landscape in the field.

It is anticipated that the findings will contribute to both the theoretical discourse and practical implementation of technology-enhanced science education. Furthermore, the study is expected to offer insights for future research in teacher education, curriculum design, and the design of effective learning environments.

Science education, physical computing, thematic analysis

A STUDY ON EASTERN BLACK SEA TUNES COMPILED BY ANKARA STATE CONSERVATORY

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With the foundation of the Republic, importance was given to the recording and compilation of Turkish folk music, and compilation studies were carried out by many individuals and institutions using various methods. One of the most important institutions that carried out compilation studies during this period was the Ankara State Conservatory between 1937 and 1952. In this study, the compilation files of 553 melodies, 151 in 1937, 297 in 1943 and 105 in 1950, were obtained during the compilation studies carried out by the Ankara State Conservatory in the Eastern Black Sea region (Artvin, Rize, Trabzon, Giresun, Ordu). Various types of tunes/tunes were encountered, primarily kolbastı-metelik tunes, karsilama tunes, horan/horon tunes, yol tunes, aşık tunes, çoban tunes, uzun tunes, oturak tunes, kina tunes, seferberlik tunes, fingil tunes and efilo tunes. These tunes/genres encountered at the time of the compilations were first classified on a provincial basis, then the genres used jointly within themselves or between cultural regions were identified and the genres that are still performed today and those that are not listed. Document analysis and literature review methods were used in the study.

Ankara State Conservatory, compilation, Eastern Blacksea

THE MAKAM STRUCTURE IN THE “KARSILAMA HAVALARI” OF ORDU-GIRESUN REGION

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In Turkish folklore, “karsilama”, which is used to name games played mutually and with partners, also has characteristic features in terms of the melodies that accompany during the game. In this research, which was conducted based on the TRT Turkish folk music repertoire and notes published in various books, articles and notifications, all notes with and without lyrics belonging to the Eastern Black Sea region were scanned; first of all, the melodies notated under the name of “karsilama” and then other melodies performed while karsilama were identified. Accordingly, it was seen that the melodies both compiled under the name of karsilama and used to accompany karsilama games in the region were largely obtained from the Ordu and Giresun regions. Karsilama tunes are generally seen in the coastal areas but lose their density in the middle and high altitudes. These tunes, which are mostly performed in the region with instruments such as “Klarinet-Davul”, zil-zurna, kemençe and bağlama; While it has a 9/8 tempo feature and stands out as 2+2+2+3 and 2+3+2+2 in terms of usul, it is mostly performed in maqams such as hicaz, hüseyinî, çargah and segah in terms of maqam.

Karşılama, maqam, Turkish Folk Music

AN EVALUATION ON THE RESIDUAL ELEMENTS IN THE VOCABULARY OF THE DIALECTS OF ORTA KARADENİZ

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Dialectology is the field that examines the branches of a main language as dialects, accents, and regional dialects depending on time and place. Dialects emerge through deep divergences within the language, accents through the threshold of mutual intelligibility within dialects, and regional dialects through small linguistic differences in accents. The standard language of Türkiye Turkish, which has taken a complete form through administrative boundaries, includes its own regional dialects within its structure. The dialects of the Central Black Sea regions of Samsun, Ordu, Amasya, Çorum, and Tokat are classified within the Western group, one of the main groups of Turkish, in the general classification plan (Karahana, 2014). Many linguistic units in Turkish dialects, from vocabulary to affixes and phonetic elements, retain features from the older stages of the language. Such remnants in a language are considered archaic elements. The definition, scope, and characteristics of archaism are described by Demirci (2022) as the tendency to use words, phrases, or syntactic structures belonging to the ancient periods of the language, as linguistic units belonging to the ancient period. Even if profound changes occur in the language, archaic elements can be actively used in its modern variants (Demirci, 2022, p. 26). In the dialects of the Orta Karadeniz region, the remnant of the emphatic particle *ok/ök* from the Old Turkish Period is actively used by speakers, as seen in the following example: [5 evliyesi, evliye buvazı dëllerdi. hâletin gine evliye buvazı dëller uriye şindik. bî tiken dikildi. (OİYA 9/5 p. 175)] In addition, the demonstrative particle *ma*, which was used in *Dîvânu Lugâti't-Türk* to mean “right there, here you go,” continues to exist in the regional dialects of Türkiye Turkish: [2 ğardaş. şindi bēş ğardaşın dört denesi öte dünyâda ğaldım. şünküm yoksuzluğ varıdı bizim (ALAA 1/2 p. 122)] Gülensoy (1988), in his study, argues that the -n consonant in examples such as *dediy_kin* (he/she said that), *çıkadıy_kın* (they are taking out that), and the -m consonants in *süpürüncem*, *sonam* are not inorganic, but rather are remnants of the reinforcing suffixes -ğına / -gine and -ma / -me from the Old Turkish period (Gülensoy, 1988, p. 69). [27 soñan evlendim. aļļah doļuz dene çocuğ verdi aļtı dene ğız üç dene oļan. aļļah a şükr_oļsun aļļah razı (ALAA 1/27 p. 123)]. The regional dialects of Orta Karadeniz contain elements in their vocabulary that include phonological and morphological features which can be associated with the old periods of Turkish. In addition, the mentioned dialects resemble each other in terms of residual elements and the similar semantic uses of these elements.

Dialectology, Orta Karadeniz regions, residual elements, *ma/me* demonstrative particle.

SUSTAINING AND ENHANCING HEALTHY LIFESTYLE BEHAVIOUR IN STUDENTS WITH SPECIAL NEEDS AND THEIR TEACHERS IN UNEXPECTED CRISIS EVENTS

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This study aimed to develop and sustain the healthy lifestyle behaviours, the knowledge, skills, and resources of the children with special needs and their teachers during unexpected crisis situations. This study involved students with special needs and their teachers from a total of 209 participants from Turkey (73 teachers, 136 students), 22 from Macedonia (14 teachers, 8 students), and 29 from Italy (20 teachers, 9 students). Initially, participants' general characteristics, healthy lifestyle behaviours, attitudes towards healthy nutrition, depression, physical activity, and anxiety levels were assessed. After providing nutrition, exercise, and stress management training, these variables were re-evaluated. Data were collected using a researcher-prepared questionnaire and various scales, including the Healthy Lifestyle Behaviour Scale, Attitude Scale Towards Healthy Nutrition, Beck Depression Scale, International Physical Activity Questionnaire, and Anxiety Level Scale. The average age of the students was 15.07 ± 2.11 years, with 67.60% having mental disabilities, 11.00% Down syndrome, 11.00% autism, and 11.90% physical disabilities. The Covid-19 pandemic's stay-at-home measures negatively impacted 40.70% of teachers and 42.80% of students, leading to issues such as loneliness, boredom, inactivity, and weight gain. At the study's conclusion, teachers' healthy lifestyle

behaviour scores decreased ($p < 0.001$), while no significant change was observed in students ($p > 0.05$). Attitudes towards healthy nutrition improved significantly in students ($p < 0.001$). Students' physical activity levels increased significantly ($p < 0.05$), but no significant change was noted in teachers ($p > 0.05$). Depression scores decreased in all participants ($p < 0.05$), while anxiety scores showed a non-significant reduction ($p > 0.05$). The training programs were partially effective, and success rates could improve with repeated sessions.

Exercise, nutrition, children with special needs, stress management

ASSESSMENT AND BEHAVIORAL TREATMENT OF ELOPEMENT OF INDIVIDUALS WITH AUTISM AND DEVELOPMENTAL DISORDERS

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Elopement is a frequently occurring challenging behavior among individuals with autism spectrum disorder (ASD) and other developmental disabilities. Such behavior can significantly hinder learning opportunities, restrict access to residential and community activities. Moreover, elopement poses the risk of injuries or death in more severe cases. This systematic literature review identified a number of peer-reviewed studies which were published between 2009 and 2024 that examined behavioral interventions aimed at reducing elopement. These studies were analyzed based on (a) participant characteristics and demographics, (b) assessment methodologies, (c) intervention strategies, and (d) treatment outcomes. The results of these analyses, functional analysis methodology, the most commonly applied interventions, and in which settings these interventions were applied will be discussed. Finally, the practical implications derived from these findings will be discussed, along with recommendations for future research directions.

Autism, elopement, behavioral interventions, behavioral assessment

SUBVERTING HETERONORMATIVITY AND ECOLOGICAL EXPLOITATION: AN ECO-FEMINIST READING OF ANGELA CARTER’S “THE COURTSHIP OF MR. LYON”

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Traditional European fairy tales have long served to normalize heteronormative and patriarchal hierarchies by depicting women as passive, virtuous figures whose value is determined by their purity and obedience. Angela Carter’s revisionist fairy tale *The Courtship of Mr. Lyon* interrogates this ideological foundation by exposing the transactional logic that transforms Beauty into a form of patriarchal capital, while simultaneously aligning her objectification with the exploitation of the natural world. Drawing on feminist, and ecofeminist theoretical frameworks, this article contends that Carter reconfigures the canonical *Beauty and the Beast* narrative to reveal the commodification of female identity under patriarchal capitalism, dramatize the parallel subjugation of ecosystems within a masculinist logic of mastery, and propose a fluid model of subjectivity that resists the binaries of human/animal, culture/nature, and masculine/feminine. Through strategic use of irony, hyperbole, and vivid winter imagery, Carter destabilizes the conventional “redemptive woman cures bestial man” trope, repositioning Beauty as an agent capable of renegotiating structures of power in relation both to the Beast and to her environment. By reading the story in dialogue with Gayle Rubin’s “traffic in women” thesis, Lacanian theories of the symbolic order, and Carolyn Merchant’s critique of the scientific conquest of nature, this analysis demonstrates that Carter’s text advances an ecofeminist ethic that advocates for a reciprocal, sustainable relationship between genders and between humanity and the more-than-human world.

Angela Carter; *The Courtship of Mr. Lyon*; eco-feminism; heteronormativity; patriarchy; commodification; *Beauty and the Beast*; gender roles; nature

A CASE STUDY ON TURKIC LANGUAGE AWARENESS OF PRE-SERVICE TURKISH TEACHERS

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The objective of this study is to examine the awareness of pre-service Turkish language teachers regarding the knowledge and historical development of Turkic languages. The present study examined awareness of the Turkic language within the framework of basic information about the historical development of the Turkic language, its structural and social functions, prominent names and works. The participants of this study, which was conducted using a case study approach, were 15 pre-service Turkish language teachers who were enrolled in the Turkish language teaching undergraduate programme at fourth grade level. The data obtained from the structured interview forms and written tasks were evaluated by content analysis. The findings indicate that the students demonstrated an ability to draw upon their existing knowledge of the historical development of the Turkic language. They exhibited a greater tendency to utilise grammar-based expressions in their explanations concerning the Turkic language. Additionally, the students exhibited a capacity to retain prior knowledge of notable figures and works within the Turkic language domain. However, they faced challenges in updating this knowledge. Furthermore, the students experienced difficulties in differentiating between different periods and concepts during the transfer of information related to the history of the Turkic language. It is hypothesised that the results obtained will contribute to the arrangement of the curricula of Turkish language teacher training programmes in a way to strengthen Turkic language awareness and will be guiding in studies to monitor the change in Turkic language awareness of pre-service Turkish teachers during their undergraduate education.

Language awareness, Turkic language awareness, pre-service Turkish language teacher

THE ECO-SCHOOL APPROACH IN EARLY CHILDHOOD EDUCATION: A QUALITATIVE ANALYSIS BASED ON TEACHER EXPERIENCES

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This study aims to evaluate the effects of the Eco-School approach within the context of early childhood education through the experiences of teachers. The research was conducted with nine preschool teachers working at Şehit Ümit İnce Kindergarten in Ordu, Türkiye. A qualitative research design was adopted, and data were collected using a semi-structured interview form consisting of five open-ended questions focusing on environmental education practices, student outcomes, instructional changes, encountered challenges, and suggestions. The data were analyzed using content analysis. Findings revealed that the teachers perceived the Eco-School program as effective in fostering environmental awareness, developing recycling habits, and strengthening children's connection with nature. However, common challenges identified included the lack of materials, limited parental involvement, and concerns about the sustainability of the program. Participants emphasized positive outcomes such as increased student engagement with nature and the development of a sense of responsibility. In conclusion, while the Eco-School practices significantly contribute to environmental education in early childhood settings, their effectiveness depends on systematic implementation, adequate support, and increased stakeholder collaboration.

Eco-School, early childhood education, environmental education, teacher perspectives, qualitative analysis

CLASSROOM MANAGEMENT IN PRIMARY AND SECONDARY EDUCATION: A SCALE DEVELOPMENT STUDY

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This study aimed to develop a valid and reliable measurement tool in the field of classroom management. Initially, a 40-item pool was generated based on a comprehensive literature review. After expert evaluations for content validity, 38 items were retained, and data were collected from 489 teachers. Following the examination of item means, skewness, and kurtosis, three items were removed. Exploratory factor analyses (EFA) with and without Varimax rotation revealed that 35 items loaded onto three factors. A three-stage item reduction process based on factor loadings, cross-loadings, and conceptual consistency resulted in a final scale of 19 items distributed across two dimensions: "Student Engagement and Social-Emotional Support" (12 items) and "Digital Pedagogy and Ethical Management" (7 items). The Kaiser-Meyer-Olkin (KMO) measure was .969, and Bartlett's Test of Sphericity was significant ($\chi^2 = 7008.043$; $df = 171$; $p < .001$), indicating sampling adequacy. The two-factor structure explained 57.288% and 8.661% of the variance, respectively, with a total explained variance of 65.94%. To validate the scale's structure, confirmatory factor analysis (CFA) was conducted with an independent sample of 540 teachers. Although the chi-square value was significant ($CMIN = 428.107$, $df = 151$, $p < .001$), the chi-square/df ratio (2.835), RMSEA (.058), CFI (.959), and GFI (.921) indicated an acceptable to good model fit. Overall, findings demonstrate that the developed Classroom Management Scale is a valid and reliable instrument, capturing both student-centered practices and ethical-digital management competencies.

Classroom management scale, scale development, validity and reliability

LEFT BEHIND, YET HOLDING ON TO BELONGING: A CASE STUDY ON PSYCHOSOCIAL RISKS AND RESILIENCE IN THE CONTEXT OF SEASONAL AGRICULTURAL MIGRATION

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This case study examines the social, emotional, and educational development experiences of five-year-old Ahmet, who participates in seasonal agricultural migration, from a multidimensional perspective. The aim of the study is to make visible the individual experiences of children exposed to structural inequalities created by migration and to examine the effects of these experiences in depth. Conducted as a comprehensive single-case study, the research analyzed the environmental risks, family losses, and educational disruptions Ahmet encountered, using Bentovim's Child Protection Assessment and Analysis Framework as a basis. Qualitative data obtained from natural observations, unstructured interviews, and child-centered creative activities were used in the data collection process. The findings show that Ahmet was exposed to inadequate health and housing conditions, emotional deprivation, and social exclusion, but protective factors such as individual support efforts and the strong emotional bond he formed with his sibling increased his psychological resilience. The results of the study point to the importance of individualized support mechanisms in the education and social integration processes of children experiencing seasonal agricultural migration. This study contributes to the development of applicable solutions for reducing social inequalities by discussing the multidimensional challenges faced by children in the context of seasonal agricultural work in light of the literature.

Seasonal agricultural migration, early childhood education, case study, access to education, social exclusion

AN ANALYSIS OF QUESTION SENTENCES IN AUDIOBOOKS OF EARLY CHILDHOOD EDUCATION PROGRAMS: A COGNITIVE CATEGORIZATION BASED ON THE REVISED BLOOM'S TAXONOMY

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Early childhood is a critical period during which the foundations of cognitive and linguistic development are established. The educational materials used at this stage provide significant opportunities to support the development of children's thinking skills. The question sentences included in the audio storybooks developed within the scope of Türkiye's Early Childhood Education Program stand out for their potential to promote cognitive development. This study aims to examine these question sentences through the framework of the Revised Bloom's Taxonomy and assess the extent to which they foster higher-order thinking skills. Utilizing a qualitative case study design, the research examined selected books through document review and descriptive analysis techniques. The questions were categorized according to the cognitive levels of the Revised Bloom's Taxonomy (2001): Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Special attention was given to questions targeting higher-order cognitive processes, particularly those requiring analysis and evaluation. The findings indicate that most of the questions are focused in the lower-order categories, such as remembering and understanding, while questions stimulating higher-order thinking are relatively limited. This suggests that the materials examined may be insufficient in fostering advanced cognitive skills such as critical thinking and problem-solving. The study emphasizes the importance of incorporating a broader range of cognitively challenging questions in early childhood educational materials to support the holistic development of children's cognitive abilities.

Early childhood, cognitive development, Revised Bloom's Taxonomy, higher-order thinking skills

HOW DOES READING OCCUR IN THE BRAIN?

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Reading is one of the most complex cognitive functions of the human brain, involving the coordinated operation of multiple brain regions. This process encompasses a multi-layered cognitive activity, beginning with the perception of visual stimuli and extending to comprehension and interpretation. During reading, four primary brain regions are activated: the occipital lobe (visual processing), the angular gyrus (letter-sound correspondence), Wernicke's area (semantic processing), and Broca's area (language production and syntactic processing). The reading process begins with the visual recognition of words. Written symbols that fall on the retina are processed in the visual cortex and converted into letters. Then, a connection is made between these letters and phonemes. This connection is related to phonological awareness, which is particularly critical during early stages of reading acquisition. The letter-sound correspondence occurs in the left temporo-parietal region. Subsequently, the meanings of words, their contextual relationships, and sentence-level structures are processed by the left temporal lobe and Wernicke's area. Finally, the information is interpreted and integrated at a higher level in Broca's area. Phonological awareness, vocabulary, working memory capacity, and attention are individual cognitive factors that significantly affect the reading process. Moreover, thanks to brain plasticity, reading is a developmentally acquired skill rather than an innate ability. Specific learning disabilities such as dyslexia may emerge due to functional disruptions in the connections between these brain regions. In conclusion, reading is a dynamic and learnable process that functions within a highly interconnected brain network. Considering these neuroscientific foundations in educational practices plays a crucial role in effectively developing reading skills.

Reading, brain, neuroscience, phonological awareness, wernicke's area, broca's area

THE EFFECT OF TEACHING MATHEMATICS WITH ETHNOMODELING ON STUDENTS' FIELD MEASUREMENT ACADEMIC PERFORMANCE

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This study aims to examine the effects of teaching geometry with ethnomodeling activities on the academic performance of 6th grade students in area measurement. Ethnomathematics addresses mathematics in a cultural context and enables students to learn mathematics based on their own experiences, societies and daily lives, while ethnomodeling examines how students develop local mathematical knowledge. The participants of this study, in which a quasi-experimental design with a pre-test-post-test control group was used, were students studying at the 6th grade level of a state middle school. While teaching was done with ethnomodeling in the experimental group, traditional teaching methods were applied in the control group. Modeling activities are problems related to ethnomathematics addressing the historical, natural and cultural heritages of the Cukurova region, and these problems were prepared by taking into account modeling principles such as modeling, reality, self-assessment, documenting the structure, effective prototyping and generalizability. The data will be analyzed according to the SOLO taxonomy using the academic performance test. The students' success levels will be classified according to the categories of "pre-structure", "one-way structure", "multi-way structure", "relational structure" and "abstracted structure". The study aims to contribute to the development of teaching strategies by revealing the potential of new learning and teaching approaches, such as the modeling learning model, on mathematics education for educators and policy makers.

Ethnomodeling, field measurement, middle school students

THE EFFECT OF CARTOON-ADAPTED READING TEXTS ON THE READING FLUENCY OF A STUDENT WITH AUTISM SPECTRUM DISORDER AND LEARNING DISABILITY

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Students diagnosed with conditions such as autism spectrum disorder and learning disabilities often encounter substantial difficulties in developing fluent reading skills. In this context, the use of motivating and engaging instructional materials becomes crucial in supporting their reading development. This study aims to examine the effect of reading texts adapted with cartoon characters on the reading fluency of a student diagnosed with autism spectrum disorder and a learning disability.

The research was conducted using a single-subject experimental design with an ABAB (reversal) model. The participant was a 12-year-old sixth-grade student formally diagnosed with autism spectrum disorder and a learning disability. During the A phases of the intervention, traditional reading texts were used, while during the B phases, reading texts adapted with cartoon characters that aligned with the student's interests were implemented.

Data were collected during each session using Akyol's (2010) Error Analysis Inventory, which recorded the student's reading time and types of reading errors. The collected data were analyzed using graphical analysis techniques. The findings revealed that the use of adapted texts led to a reduction in reading errors, an increase in reading accuracy, and a significant improvement in reading fluency, as reflected in shorter reading times. Following the B phases, the student's reading level progressed from the "frustration level" to the "independent reading level."

These results underscore the importance of tailoring instructional materials to students' interests, particularly when working with individuals who experience persistent reading difficulties. Future research is recommended to investigate the long-term effects and generalizability of cartoon-adapted reading materials across broader age groups and various types of learning difficulties.

Autism spectrum disorder, learning disability, reading fluency, cartoon characters, single-subject experimental design

PUBLIC PERCEPTIONS OF SYRIAN REFUGEES: THE INFLUENCE OF AGE AND GENDER ON SOCIAL ATTITUDES

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Focusing on how public attitudes toward Syrian refugees vary across age and gender, this research explores the influence of intergenerational value shifts and gendered social roles on perception formation. Social distance, cultural tolerance, and willingness to coexist serve as key indicators to assess these demographic differences. Data were collected through an online survey conducted in 11 provinces across Turkey, resulting in a sample of 1,666 participants. A 19-item, five-point Likert scale was used to measure attitudinal tendencies. Given the non-normal distribution of the data, the Kruskal–Wallis H test was employed to examine differences across age groups, while the Mann–Whitney U test was used for gender-based comparisons. Findings indicate that younger individuals tend to exhibit more inclusive attitudes and lower levels of social distance, while older respondents show more cautious and exclusionary tendencies. Women appear to approach cultural differences with greater tolerance, whereas men report higher levels of perceived threat and security concerns. These results suggest that attitudes toward refugees are shaped through complex layers of demographic, social, and cultural dynamics rather than purely individual beliefs. The analysis underscores the importance of designing social cohesion policies that account for demographic diversity, particularly the intersecting roles of age and gender in shaping exclusionary or inclusive public outlooks.

Syrian refugees, public perception, demographic variables

CITIZENSHIP AND ACTION IN THE CONTEXT OF THE CRISIS OF THE PUBLIC SPHERE: A THEORETICAL ANALYSIS WITHIN HANNAH ARENDT'S POLITICAL PHILOSOPHY

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This study aims to provide a theoretical analysis of the relationship between citizenship and action in the context of the crisis of the public sphere, within the framework of Hannah Arendt's political philosophy. In modern society, the decline of the public sphere undermines the individual's political visibility and capacity for freedom, rendering the notion of citizenship increasingly dysfunctional. Based on Arendt's seminal works *The Human Condition* and *On Revolution*, the analysis emphasizes that the public sphere is not merely a physical space, but a vital stage for freedom and collective action. According to Arendt, citizenship is achieved through the visibility of individuals in this shared space; therefore, the loss of the public sphere implies the erosion of political freedom and democratic agency. The findings indicate that the public sphere has gradually lost its function due to economic instrumentalization, social encroachment, and the blurring of boundaries between private and public domains. In conclusion, Arendt's conception of the public sphere should be re-evaluated in light of contemporary crises of political representation and reconsidered within the framework of normative political theory, particularly around the principles of freedom, participation, and action.

Hannah arendt, public sphere, citizenship, political action

PILOT STUDY OF THE TURKISH ADAPTATION OF THE ADOLESCENT INTERNET ADAPTABILITY SCALE

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With the increasing integration of the internet into adolescents' daily lives, understanding how they adapt to digital environments has become essential. Adolescents face challenges such as internet addiction, cyberbullying, and privacy concerns. The concept of "Internet Adaptation"—the ability to manage the opportunities and risks of the digital world in a healthy and productive manner—has recently gained attention. However, there is a limited number of studies and measurement tools addressing this issue. This study aims to adapt the Internet Adaptation Scale for Adolescents (IASA), developed by Wang et al., into Turkish to assess adolescents' digital adjustment skills within the Turkish cultural context. The adaptation process followed four key stages: translation, back-translation, expert review, and pilot testing. The Davis technique was employed to evaluate item clarity and cultural relevance. The expert evaluations yielded a content validity index (CVI) of .83. To assess construct validity, Confirmatory Factor Analysis (CFA) was conducted with data collected from 215 university students (132 females, 83 males), aged 19–25. Internal consistency was measured using Cronbach's alpha. The linguistic validity process, conducted using the Davis technique, resulted in a Content Validity Index (CVI) of .83 based on expert evaluations. Confirmatory Factor Analysis (CFA) was conducted to assess construct validity. The fit indices obtained for the eight-factor structure of the scale ($\chi^2/df = 2.1$; CFI = .95; TLI = .92; RMSEA = .056; SRMR = .051) met the reference values reported in the literature. The Cronbach's alpha coefficient calculated for the entire scale was .85. The analysis results indicate that the fit indices for the eight-factor model are within acceptable limits. The internal consistency coefficient obtained also suggests a high level of reliability for the scale. The current research sample consisted solely of university students. To enhance sample representativeness and reach a broader population, it is planned to extend the study to adolescents at the secondary and high school levels. This will enable further validation and reliability testing of the scale across different groups. Therefore, it is recommended that the data collection process for the Turkish adaptation of the scale continue. Once the adaptation process is completed, the scale is expected to offer a comprehensive assessment of adolescents' ability to navigate the digital world effectively and safely and contribute to a deeper understanding of the underlying psychological mechanisms of such behaviours.

Adolescents, internet adaptation ability, scale adaptation

THE RELATIONSHIP BETWEEN ATTITUDES TOWARD INSTAMOMS, PARENTAL PERFECTIONISM, AND PERCEIVED SOCIAL SUPPORT

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Instamoms share their knowledge and experiences regarding child care, child-rearing, and motherhood with their followers via social media. A review of the literature reveals that studies on instamoms are limited in number and have been predominantly qualitative. Within this framework, the present study aimed to examine the relationship between attitudes toward instamoms, parental perfectionism, and perceived social support. In addition to a Demographic Information Form, the data collection instruments comprised the Attitudes Toward Instamoms Scale, the Parental Perfectionism Scale, and the Perceived Social Support Scale. A total of 188 mothers, each having at least one child under the age of 18, participated in the study. Participants ranged in age from 20 to 52 years; 74 of them followed instamoms, whereas 114 did not. The results indicated a significant positive correlation between attitudes toward instamoms and parental perfectionism, while no significant relationship was found between attitudes toward instamoms and perceived social support. Furthermore, attitudes toward instamoms did not differ significantly according to the number of children. The findings suggest that being followed by other mothers on social media is associated with individuals' perfectionism perceptions. The desire to be the perfect mother directs individuals toward following instamoms. Although instamoms offer mothers an optimistic and positive perspective, they may also lead individuals to feel inadequate in areas such as child care. In this context, parenting and motherhood training programs could be provided to mothers and expectant mothers. Public awareness campaigns might address the possibility that instamom content increases perfectionistic pressure on parents. The present study's results are limited to the data obtained from 188 participants; to enhance generalizability, it is planned to increase the sample size and collect new data.

Instamom, parental perfectionism, social support

CAREER COUNSELING IN THE AGE OF ARTIFICIAL INTELLIGENCE

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Today's labor market is undergoing a rapid and profound transformation driven by digital technologies. This transformation influences individuals' career trajectories as well as the paradigms and practices of career counseling. This study aims to analyze, from a theoretical perspective, the new opportunities, potentials, and challenges that career counseling faces in the digital era. Within the scope of the research, the impact of technological innovations such as online career platforms, AI-powered personalized guidance systems, labor market forecasts derived from big data analytics, and virtual reality-based career exploration tools on career counseling processes is examined. These technologies enable individuals to explore a broader range of career alternatives, access up-to-date occupational information instantly, benefit from personalized counseling services, and develop more effective job search strategies. In particular, AI-supported tools analyze individuals' interests, abilities, and values to suggest suitable career paths, while virtual reality applications support decision-making processes through realistic occupational simulations. However, these technological advancements also raise complex and critical issues, including the deepening of the digital divide, concerns over privacy and security of personal data, the potential for algorithmic bias, and the ethical use of artificial intelligence. In this context, the role of career counselors is evolving from being mere information providers to guiding individuals in becoming digitally literate actors who can critically evaluate digital resources, actively engage in technology-assisted processes, and construct meaningful careers. This study highlights the importance of a human-centered digital career counseling model that not only leverages technological innovations but also upholds ethical principles and promotes equitable practices.

Career counseling, artificial intelligence, virtual reality

TEACHERS' PERSPECTIVES ON STUDENTS WITH INTELLECTUAL DISABILITIES AND RESOURCE ROOM EDUCATION IN SECONDARY SCHOOLS

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This study aims to explore the reflections of resource room education provided to students with intellectual disabilities on classroom practices in secondary schools. The research focuses on the perceptions of subject teachers regarding the content and effectiveness of resource room instruction, the influence of this support on students' academic and social participation in integration settings, and the nature of collaboration between resource room teachers and subject teachers.

In addition, the study seeks to understand how students with intellectual disabilities perceive the resource room education they receive, how they utilize the knowledge and skills acquired during these sessions in their regular classes, and their views on the collaborative processes between their teachers. Designed as a qualitative study, data will be collected through semi-structured interviews with subject teachers and students, and through document analysis of student work samples. Participants will include students with intellectual disabilities enrolled in integration-based secondary schools and their teachers.

Preliminary insights suggest that students are often placed in resource room programs without their active involvement, which may lead to decreased motivation. Furthermore, students report being excluded from classroom activities during resource room sessions, negatively affecting peer relationships. Teachers, on the other hand, seem to engage in limited collaboration, and resource room instruction is often reduced to basic skills training rather than being integrated with the general curriculum. This study is expected to provide valuable insights into how resource room practices can be structured to foster inclusive and collaborative approaches across integration-based educational settings.

Resource room education, intellectual disabilities, integration, collaboration

AN INVESTIGATION OF PRE-SERVICE PRE-SCHOOL TEACHERS' BELIEFS REGARDING ENVIRONMENTAL EDUCATION

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The increasing prevalence of environmental problems highlights the necessity of fostering environmental awareness from an early age. As early childhood is a critical period during which individuals' attitudes toward the environment are shaped, the integration of environmental education into this stage holds significant importance. The effective integration of environmental education in the future is directly related to pre-service teachers' beliefs about environmental education. From this perspective, the aim of the present study is to examine pre-service preschool teachers' beliefs regarding the integration of environmental education into early childhood education. In line with this aim, the study was designed as a cross-sectional survey and is being conducted with 139 pre-service teachers enrolled in the Department of Early Childhood Education at the Faculty of Education of a public university during the spring semester of the 2024–2025 academic year. Based on the results of the quantitative analysis, it was found that pre-service teachers' beliefs toward environmental education did not differ significantly according to gender, type of residential area (rural or urban), or prior participation in environmental education programs. Furthermore, no significant differences were observed in their beliefs based on their year of study. These findings suggest that future research should explore additional factors that may influence pre-service teachers' beliefs toward environmental education beyond demographic and educational background variables.

Early childhood, environment, belief, teacher education

AN EXAMINATION OF PRE-SERVICE SCIENCE TEACHERS' TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE AND SELF-DIRECTED LEARNING SKILLS WITH TECHNOLOGY

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Technological Pedagogical Content Knowledge (TPACK) is a very comprehensive concept that expresses individuals' integration of technology, pedagogy, and content knowledge into teaching processes by bringing them together effectively. Teachers' competencies in technology integration offer students the opportunity to work more independently, motivated, and goal-oriented in technology-supported learning environments. This kind of learning environment allows students to better manage their learning processes and take responsibility, while at the same time increasing their motivation and enabling them to have a more in-depth learning experience. In addition, thanks to the use of technology, students' progress at their own learning pace, allowing them to better respond to their individual learning needs. This study aims to determine the level of technological pedagogical content knowledge and self-directed learning with the technology of pre-service science teachers. The survey method, one of the descriptive research methods, was used in the study. The technological pedagogical content knowledge scale and technology and self-directed learning scales were used as data collection tools in the study. The research consists of a total of 79 pre-service teachers studying in the science teaching department of a state university. After applying appropriate statistical analyses to the data obtained in the research, the variables of grade level and grade point average did not create a statistically significant difference in pre-service teachers' self-directed learning with technology and technological pedagogical content knowledge skills, while the frequency of pre-service teachers' use of instructional technology created a statistically significant difference in the positive direction.

TPACK, technology, self-directed learning, science, pre-service teacher

AN EXAMINATION OF PRE-SERVICE SCIENCE TEACHERS' VIEWS ON GENERATIVE ARTIFICIAL INTELLIGENCE

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With the rapid advancement of contemporary technology, artificial intelligence presents the potential for substantial transformations within the educational sector, as it becomes increasingly prevalent across various fields, including healthcare, agriculture, medicine, and industry. These advancements enhance the effectiveness and efficiency of learning and teaching processes, enabling personalized learning experiences, monitoring and analysing student performance, and alleviating the workload of educators by automating numerous tasks. In the context of science education, where abstract concepts are prevalent and instruction can be challenging, artificial intelligence offers significant advantages, such as making learning more tangible, supporting instruction with sophisticated visuals, and tailoring educational experiences to align with each student's learning pace and style, while also reducing the educator's workload and optimizing workforce utilization. In this regard, the perspectives of science teacher candidates currently pursuing their undergraduate studies on generative artificial intelligence are crucial for anticipating potential research endeavors in this domain. This study examines the views of science teacher candidates enrolled in undergraduate programs regarding generative artificial intelligence, employing the phenomenology model, a qualitative research method. The research sample comprises 26 students from the science teaching department at Ordu University. A semi-structured interview form, designed specifically for this study, was utilized as a data collection instrument. The themes and codes derived from the collected data were organized and tabulated along with their frequencies. A comprehensive analysis of the research findings reveals that participants expressed both positive and negative opinions regarding generative artificial intelligence. While they acknowledged the significant contributions this technology could make to education, they also articulated considerable concerns surrounding its implementation.

Science education, generative artificial intelligence, preservice teacher

NATURAL DISASTER LITERACY IN EDUCATION: A THEMATIC LITERATURE ANALYSIS

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A variety of measures are implemented at the social level in response to natural disasters occurring worldwide and within our own country. These measures are accompanied by the organization of various training programs. Furthermore, individuals must possess adequate disaster literacy skills to enable them to make informed decisions and respond effectively in emergencies. The research conducted within the domain of natural disaster literacy is of paramount importance in determining and enhancing the literacy levels of individuals. The present study is an examination of studies on natural disaster literacy in education conducted between 2018 and 2024. The present study was conducted using the thematic literature review method to investigate articles and postgraduate publications on natural disaster literacy in education. Within the scope of the inclusion and exclusion criteria, a total of 11 studies were analysed. The research findings indicate that studies conducted within the scope of natural disaster literacy are predominantly quantitative, with the primary objective being to ascertain the current literacy level. The analysed studies collect data from various regions of Turkey. Furthermore, the research groups in the analysed studies are sampled with the participation of pre-service teachers and teachers from different departments. The extant research findings indicate a clear necessity to provide support, to pre-service teachers, in literacy concerning natural disasters. The field of educational research has only recently begun to examine natural disaster literacy as a topic, and it has been determined that the existing body of literature on this subject is limited. However, there has been a significant increase in the number of studies conducted in recent years.

Natural disaster literacy, education, thematic analysis

DARK TOURISM SITES IN HIGH SCHOOL HISTORY CURRICULA

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Contemporary history education aims not only to provide students with knowledge but also to foster the development of historical empathy, the understanding of collective memory, and the acquisition of spatial awareness. In achieving these goals, the role of out-of-school learning environments has recently been examined more extensively. As an out-of-school learning environment, dark tourism sites offer significant potential for imparting historical knowledge and skills in history teaching. However, the potential of dark tourism in history education has not been adequately explored in Türkiye. The present research aims to evaluate dark tourism sites that could be utilized to teach high school history in Türkiye. To this end, through document analysis, the curricula of Contemporary Turkish and World History, History, and Turkish Revolution History and Kemalism courses (2018 and 2024) will be examined within the framework of dark tourism sites identified by Dere, Hatipoğlu, and Hatipoğlu (2025) based on the Türkiye Cultural Portal. The analysis will reveal the relationship between the learning outcomes in the curricula and the dark tourism sites. It is expected that the research will make a contemporary contribution to integrating dark tourism sites into history education in Türkiye.

Dark tourism, high school history education, curricula, tourism geography, out-of-school learning environments

COMMUNICATION ISSUES FACED BY DISADVANTAGED INDIVIDUALS WHEN ACCESSING PUBLIC SERVICES

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This study explores the communication barriers faced by disadvantaged individuals in accessing public services in İstanbul, specifically targeting groups such as people with disabilities, refugees, the elderly, and women. It identifies key challenges like language barriers, physical inaccessibility, lack of assistive technologies, cultural misunderstandings, and digital exclusion, which hinder their ability to fully engage with public institutions.

The research highlights the need for inclusive communication practices, including multilingual services, accessible formats, and cultural sensitivity training for public service employees. It stresses that without these measures, disadvantaged groups remain excluded, which contributes to social inequality and limited access to essential services.

Through interviews the study gathers insights into the real-world impact of these communication barriers, emphasizing that digital exclusion affects the elderly, language barriers affect refugees, and cultural stigma affects women experiencing gender-based violence. It concludes that public institutions must invest in accessible infrastructure, assistive technologies, and inclusive communication strategies to ensure equal access to services. The study also suggests that providing clear information about available services and implementing alternative service delivery methods for digitally excluded individuals will contribute to a more inclusive society.

In conclusion, overcoming communication barriers is essential for achieving social justice and equality in public service delivery, ensuring that all citizens, regardless of their background or circumstances, have equal access to necessary services.

Communication, disadvantaged, public service

TEACHING SCIENCE: PROSPECTIVE TEACHERS AS STORYTELLERS

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This study aims to equip prospective primary school teachers with the skills to design and implement science instruction through the use of stories and fairy tales. Conducted as action research within the scope of the “Researcher Teacher” course, the study involved 22 first-year prospective teachers (4 male, 18 female). A four-week training program grounded in creative drama methods and based on the framework of Ramsden and Hollingsworth (2004) was developed and delivered by the researcher. Participants, working in pairs, selected fairy tales and designed educational activities integrating scientific concepts. These were presented in 20-minute classroom sessions consisting of a warm-up, storytelling, and a science-related activity. The sessions were video recorded for analysis. After the presentations, prospective teachers submitted reflective reports on their preparation and experience. Data sources, including video recordings, researcher observations, and student reflections, were analyzed qualitatively. Findings indicated that participants predominantly read directly from the text, struggled to maintain eye contact, and showed limited improvisational storytelling. The results highlight a need for further training in expressive and audience-engaging storytelling techniques to more effectively integrate narrative elements with science education.

Storytelling, science teaching, creative drama, prospective primary school teachers

REFLECTIONS OF FIELD-BASED DIFFERENCES ON ACADEMIC ACHIEVEMENTS AND COURSE PERCEPTION IN INFORMATION TECHNOLOGIES COURSE

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This study examines the academic achievement and course perception levels of higher education students from different academic disciplines in the context of the Information Technologies course. In the study, correlational survey and causal-comparative design were used together. The participants of the study consisted of 90 undergraduate students studying at a state university in Türkiye. 53 of the participants were mathematics department students, and 37 were social studies department students. Existing classes were used in the study. In both classes, training was carried out face-to-face in a computer laboratory with the same instructor and the same content for 15 weeks within the framework of the curriculum. At the end of the training, students' academic achievement was measured with a multiple-choice test developed by the instructor, and course perception was measured with the Course Evaluation Scale.

Independent sample t-test, Pearson correlation coefficient and multiple regression analysis were applied in the analysis of the data. The findings showed that the academic achievement scores of mathematics students was significantly higher than that of social science students scores. While there was no significant relationship between course perception and academic achievement in mathematics students, it was determined that there was a significant and positive relationship for social science students. In addition, in the regression analysis, the perception of the instructor was found to be a significant predictor of academic achievement in social science students.

The results show that discipline-based differences can have an impact on academic achievement and course perception, and that these differences should be taken into account in instructional design. The research offers suggestions for designing common courses in a more inclusive and discipline-based way that are sensitive to differences.

Discipline-based education, academic achievement, course perception, information technologies

THE RELATIONSHIP BETWEEN THE PERCEPTION OF CORPORATE SOCIAL RESPONSIBILITY AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR: A RESEARCH ON ARTVİN ÇORUH UNIVERSITY HOPA FACULTY OF ECONOMICS AND ADMINISTRATIVE SCIENCES' STUDENTS¹

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The aim of this study is to test whether corporate social responsibility affects organizational citizenship behaviour. From the perspective of Artvin Çoruh University Hopa Faculty of Economics and Administrative Sciences' students who constitute the sample; impact of corporate social responsibility on organizational citizenship behaviour has been examined. Additionally distribution of independent and dependent variables according to demographic characteristics have been detected. First of all corporate social responsibility and organizational citizenship behaviour concepts are explained within the scope of the conceptual framework. Following this, researches conducted on the subject in Türkiye and their results are mentioned. In the last section, an application carried out in Artvin Çoruh University Hopa Faculty of Economics and Administrative Sciences is included and its results are discussed.

The main result of the study is that students perceive corporate social responsibility practices as positive. And it can be told that students show organizational citizenship behaviours. Between corporate social responsibility and organizational citizenship behaviour; generally positive and linear relationships have been found. In other words; the higher level of students' perception of corporate social responsibility, the higher organizational citizenship behaviours are being shown by them. Moreover meaningful distributions of both independent and dependent variables according to demographic characteristics of age, class which they study and family income status have been detected.

Corporate social responsibility, organizational citizenship behaviour, university students

This study has been conducted by benefiting from the master's thesis titled "The Relationship Between The Perception Of Corporate Social Responsibility And Organizational Citizenship Behavior: A Research On Artvin Çoruh University Hopa Faculty of Economics And Administrative Sciences' Students" completed by Hazal Uzunkaya under the supervision of Assistant Professor Yılmaz BAYAR at Avrasya University Institute of Social Sciences.

A THEORETICAL EVALUATION ON THE ROLE OF TOURIST GUIDES IN THE CULTURAL DIPLOMACY PROCESS

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In today's international relations, cultural values and interactions between peoples play a decisive role, complementing traditional political and economic power dynamics. The diversification of communication channels due to globalization has brought cultural diplomacy to the center of international relations. This study aims to evaluate the roles of tourist guides in the context of the increasing importance of cultural diplomacy within a theoretical framework. Traditionally seen as information transmitters, tourist guides are now positioned as cultural representatives and diplomatic intermediaries. Existing theoretical and empirical studies were analyzed using the literature review method. The findings reveal that tourist guides are critical actors in cultural identity construction, perception management and promotion of cultural heritage at the international level. Tourist guides, who communicate directly with international visitors, make significant contributions to the accurate representation of national culture, overcoming cultural biases, reinforcing a positive cultural image and promoting intercultural understanding. Moreover, through accurate information flow and effective cultural narratives, they pave the way for the strengthening of cultural and economic relations between countries and the formation of diplomatic cooperation. In this context, tourist guides are considered as both communication tools and effective practitioners of cultural diplomacy.

Cultural diplomacy, public diplomacy, tourist guiding, intercultural communication

RELATIONSHIP AND EVALUATION OF STATIC POSTURE AND QUALITY OF LIFE OF TURKISH MUSIC DEPARTMENT STUDENTS PLAYING BAĞLAMA INSTRUMENT

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Musculoskeletal problems can occur in individuals who play musical instruments due to prolonged use. In general, overuse can lead to tension injuries in the joints, muscle structure, and tendons, or postural disorders may arise due to the way the instrument is held and body positioning. Based on this, this study aims to examine and evaluate the relationship between certain parameters, considering that the mandatory body positions adopted by bağlama (a Turkish string instrument) students while performing, their instrument-holding techniques, and static postural changes due to overuse may negatively affect their quality of life. The study included 16 students from Ordu University, Faculty of Music and Performing Arts, Department of Turkish Music, whose primary instrument was the bağlama, with an average age of (22.62 ± 2.55) and at least four years of regular and continuous playing experience. For data collection, posture assessment was conducted using photography and the APECS mobile application, while the World Health Organization Quality of Life Scale (WHOQOL-BREF TEST) was used to determine quality of life. Data analysis was performed using the SPSS program, with mean standard deviation, p-values, and spearman correlation analysis for relational assessments. The findings of the study revealed that participants' posture values deviated by 0° , and a significant negative correlation was found between their quality of life and posture values ($p < 0.05$). In conclusion, the study determined that the participants had postural issues, such as the head and shoulders being positioned forward compared to the normal angle, as well as angular problems in the hip, knee, and foot regions. It was concluded that this situation negatively affected their quality of life.

Turkish Folk Music Department, bağlama instrument, posture, quality of life

DETERMINING THE STATUS OF BOOK CENTERS IN PRESCHOOL CLASSROOMS AND EXAMINING TEACHERS' VIEWS ON BOOK CENTERS

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In the preschool period, supporting children's language development, literacy skills, and social communication skills is directly related to the effective use of book centers. The effective use of book centers not only strengthens children's language skills but also supports their thinking and expression abilities. Therefore, the organization of book centers, their content, the diversity of materials, and how teachers utilize these centers play a major role in children's development. This study aims to determine the current status of book centers in preschool classrooms and examine teachers' views about book centers. In addition to revealing the general state of these centers, the research will determine teachers' views on the functionality of book centers, their utilization, material selection, and appropriateness. The study will be conducted with 20 preschool teachers working in Ordu province, using a case study design, which is a qualitative research method. Data will be collected through semi-structured interviews with teachers and will be evaluated using content analysis. As a result of the research, the status of book centers in preschool classrooms and teachers' views about these centers will be determined. The findings will be discussed in light of the literature, and various recommendations will be presented to relevant groups.

Preschool period, book center, teacher opinions

AN ANALYSIS OF ERRORS IN THE WRITTEN TEXTS OF STUDENTS LEARNING TURKISH AS A FOREIGN LANGUAGE AND SUGGESTED SOLUTIONS (A2 LEVEL)

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This study aims to analyze the written expression errors of A2 level students learning Turkish as a foreign language using the "error analysis method." The frequency of each error type was also identified. A qualitative research design was used, and the data were collected through document analysis. The study group consists of students in the preparatory class at Marmara University TÖMER during the 2022–2023 academic year. Students' texts written in the writing section of the end-of-course exam were evaluated using the descriptive survey method. The identified errors were categorized as follows: incorrect spelling of words, wrong word usage, incorrect or missing suffixes, vowel harmony errors, incorrect use of case suffixes, omission of necessary words, unnecessary use of suffixes or words, tense suffix errors, incorrect use of auxiliary verbs, and omission or overuse of prepositions and conjunctions. These errors were analyzed in the context of demographic features and negative language transfer, and suggestions were offered to help correct them.

Teaching Turkish as a foreign language, error analysis, written expression

A THEMATIC ANALYSIS OF SOCIAL ENTREPRENEURSHIP DISCOURSES

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Social entrepreneurship, which focuses on social benefit and transformation, has gained significant importance in recent years both in academic literature and in practice. However, the lack of conceptual clarity, application models, and legal status of social enterprises makes this a field that requires further study by multiple disciplines. This study aims to examine the contexts in which social entrepreneurship is discussed in TEDx talks through discourse analysis, with a particular focus on the shared values and narratives of social entrepreneurship.

The research seeks to answer key questions such as: What themes are emphasized in TEDx talks on social entrepreneurship? What meanings do experts attribute to social entrepreneurship activities? In what kinds of social structures and contexts is social entrepreneurship most frequently addressed? And what role do social enterprises play in processes of social change?

By analyzing a wide range of TEDx talks, the study allows for an in-depth examination of the concept. Addressing the subject in a global context, the study aims to uncover the relationships and interactions among the values, norms, and motivations embedded in the discourse of social entrepreneurship, thereby contributing to greater conceptual clarity in the field. Moreover, the study aims to open up new areas of discussion that can serve as contextual guides for researchers working in the field of social entrepreneurship. Through discourse-based analysis, it also seeks to offer a comprehensive conceptual framework for more systematically examining discursive patterns in the field.

Social entrepreneurship, social transformation, discourse analysis, meaning construction

THEMATIC CONTENT ANALYSIS OF POSTGRADUATE THESES ON THE USE OF ARTIFICIAL INTELLIGENCE IN SCIENCE EDUCATION

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In today's world, the rapid acceleration of technological developments significantly influences societies and brings modern technologies to the forefront of education. Among these, artificial intelligence (AI) is becoming increasingly prevalent. AI is now being integrated into a wide range of educational disciplines—from early childhood to higher education, from computer science to language instruction, and from mathematics to science—gaining growing significance in educational practices. With its ability to personalize learning processes, provide innovative teaching methods, and monitor and analyze student performance, AI offers remarkable opportunities for transformation in education, benefiting both students and educators. The main purpose of this study is to examine postgraduate theses related to the use of artificial intelligence in science education by analyzing their demographic characteristics (such as year of publication, university, institute, keywords, etc.) and methodological trends (including research type, methods, sample size and type, data collection tools, and data analysis techniques). Additionally, the study aims to provide a comprehensive overview of how AI technologies are used for educational purposes—focusing on the types of AI technologies used, their intended purposes, the type of educational support provided, the variables examined, and the duration of implementation. The data will be collected from the National Thesis Center of the Council of Higher Education (YÖK) without a year limitation. The keywords "artificial intelligence" and "science education" will be used in the search process. The data obtained will be analyzed using content and bibliometric analysis methods. Relationships and trends will be visualized through the VOSviewer software and presented in tables and figures.

Science education, artificial intelligence, bibliometric analysis

AI-SUPPORTED LEARNING ENVIRONMENTS' IMPACT ON STUDENT ACHIEVEMENT AND MOTIVATION: A SYSTEMATIC CONTENT ANALYSIS

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This study examines how AI-enhanced learning environments affect student achievement and motivation by presenting a systematic content analysis of 104 peer-reviewed journal articles published between 2020 and 2025. Following PRISMA guidelines, relevant studies were identified through comprehensive searches of Web of Science, Scopus, Google Scholar, and dblp. The analysis focused on three dimensions: types of AI technologies used, their effects on academic achievement, and their effects on student motivation. The results show that adaptive learning systems, chatbots, automated feedback mechanisms, and analytics-based interventions are the most widely used AI technologies, providing positive effects on both student achievement and motivation. However, the magnitude and consistency of these effects vary across educational contexts and implementation strategies. The review identifies gaps in the literature (particularly regarding under-researched educational levels and pedagogical approaches) and discusses implications for future research and the design of AI-enhanced instructional applications.

AI-supported learning environments, student achievement, student motivation, automated feedback, learning analytics

POLITICAL CONSTRUCTION OF ARTIFICIAL INTELLIGENCE: THE PROBLEM OF DOMINATION FROM THE PERSPECTIVE OF BIOPOLITICS AND GOVERNMENTALITY

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Artificial Intelligence technologies are becoming increasingly widespread today, and while they are making our lives easier in various ways, they are also the subject of significant concerns about their political implications. This study aims to address the potential domination effects of artificial intelligence on individual freedom within the framework of Michel Foucault's concepts of biopolitics and governmentality. Artificial Intelligence is transforming the everyday lives of individuals with the possibilities it offers in various areas of life, but it is also becoming a political tool that is reshaping power and subject relations.

This study evaluates the relationship between technology and power in a conceptual framework, while explaining the problem of political domination in relation to artificial intelligence. Within the limits of the political, the study analyses the transformation of life in the context of the reciprocal effects of the struggle between power and subject. Through qualitative case studies, concrete examples of how artificial intelligence functions as a biopolitical instrument are presented.

Most current studies focus on the ethical and technical dimensions of artificial intelligence, but they do not sufficiently interrogate the political contexts of the technology. This lack makes it difficult to understand the subjectivity of individuals and the impact of artificial intelligence on power structures. The study aims to fill this gap and provide an in-depth analysis of the biopolitical implications of artificial intelligence technologies.

Biopolitics, governmentality, domination, power, artificial intelligence

A QUALITATIVE STUDY ON THE USE OF ILLUSTRATION AS A TOOL OF CULTURAL REPRESENTATION IN COMMEMORATIVE STAMP DESIGNS

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Throughout history, the stamp has been a versatile communication design product that is not only an element of a postal system but also conveys information through its graphic language, possesses collection value, and represents the cultural identity of its era. This function of representation is more pronounced in special series of stamps prepared to commemorate or promote a specific person, event, or subject, defined as commemorative stamps. In commemorative stamp designs, illustration stands out as a representation tool that shapes cultural memory and constructs visual identity. The aim of this research is to examine how illustration functions as a cultural representation tool in commemorative stamp designs and to analyse how cultural narratives are visualised through this form of visual expression. The research is a document analysis study conducted based on a qualitative research design. The role of illustration in cultural representation is discussed within the framework of Stuart Hall's theory of representation and signification; the review is limited to commemorative stamps printed by the Turkish Post Office (PTT) since 2014. The findings of the research indicate that the illustrations used in commemorative stamps do not solely serve the purpose of visual ornamentation; rather, they are positioned as functional and strategic tools in the construction of cultural narratives through graphic language. Every colour, composition arrangement, form, or figure used in illustrative representations produces meaning as part of a specific visual discourse. Therefore, in this aspect, illustration is not only an aesthetic form of visual expression but is also evaluated as part of cultural signification practices, in Hall's terms. In this respect, the study contributes to the visual communication design discipline by revealing, through concrete examples, the role of stamp design, a micro-scale graphic application practice, in the production of meaning regarding cultural representation.

Stamp design, illustration, cultural representation, graphic design, visual communication design

WEB TOOLS IN THE TURKISH LANGUAGE INSTRUCTION PROCESS IN PRIMARY SCHOOLS

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Primary school Turkish language education is a process designed to equip students with essential language skills and encourage the accurate and effective use of the language. This encompasses grammar, reading, writing, listening, and speaking skills, ultimately aiding in the development of children's communication abilities. In contemporary education, web tools offer diverse avenues for students to enhance their language skills. Interactive content, games, online quizzes, and language development applications, in particular, contribute to making Turkish lessons more engaging. Through web tools, students can cultivate their language skills not only within the classroom but also in the digital sphere. They can access various online resources to expand their Turkish vocabulary, strengthen their written expression, improve reading comprehension, and learn grammatical rules. With the increasing prevalence of digital technologies in education, the trends in research concerning the impact of web tools on Turkish language teaching and language skills have become a subject of interest. Identifying the distinct, shared, and similar aspects of studies conducted on this topic contributes to a comprehensive understanding. This study aims to analyze articles related to web tools utilized in primary school Turkish language education. To this end, articles indexed in Google Scholar and TR Directory were searched using the keywords "Primary School," "Turkish," and "Web Tools." The identified articles were analyzed based on their objectives, methodologies, and findings, leading to a discussion on the current state of web tool usage in Turkish language education.

Primary school, Turkish language instruction/teaching, web tools

AN ANALYSIS OF PROVINCIAL ILLUSTRATIONS PREPARED BY THE MINISTRY OF INTERIOR OF THE REPUBLIC OF TURKIYE FOR GOVERNORSHIPS IN TERMS OF VISUAL COMMUNICATION DESIGN

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Widely used as a language of visual expression in the field of graphic arts, illustration is also regarded as a powerful medium for shaping conceptual content. Through its functions such as supporting a text, visualising ideas, and reinforcing the intended message, illustration possesses a distinctive expressive potential, setting it apart from photography and painting. The visual culture of the digital age has transformed not only individual modes of perception but also the communication strategies of institutions. In particular, visuals used on web-based platforms have become instruments of institutional identity, diversifying according to the interests and perceptual tendencies of target audiences. In this context, illustration has emerged as one of the most effective tools of visual communication due to its aesthetic value and narrative strength. This study aims to examine the promotional illustrations featured on the official website of the Ministry of Interior of the Republic of Türkiye, specifically within the section dedicated to provincial governorships. These illustrations aim to reflect the cultural elements unique to each province. The main objective of the research is to analyse the extent to which these illustrations fulfil their intended visual representation and communication functions. Accordingly, a total of 14 provinces from Türkiye's seven geographical regions were selected as the sample group—comprising the most and least populous provinces from each region. The study was structured within a qualitative research framework, employing both document analysis and visual analysis methods. The findings reveal that despite the visual coherence of the illustration series, there are limitations in the representation of local identity and cultural diversity. This situation clearly demonstrates the need for more inclusive and representationally effective visual strategies in design projects intended for public communication. By offering a guiding analysis on the representation of cultural diversity in public illustration design, this study contributes to the field of visual communication.

Illustration, cultural representation, public design, graphic design, visual communication design

SOCIAL STUDIES TEACHERS' PERSPECTIVES ON THE USE OF ARTIFICIAL INTELLIGENCE TOOLS IN EDUCATIONAL PROCESSES

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This qualitative inquiry is designed to explore the attitudes of social studies teachers toward the use of artificial intelligence (AI) functionalities in educational settings. Information was obtained based on semi-structured interviews with 12 teachers who were employed in different locations in Türkiye. The respondents were purposively sampled and the results of their responses were analyzed thematically. Data suggests that most of the educators hold a favorable and pragmatic view on AI tools in their practice (e.g., in the preparation of lessons, creation of learning materials, and measurement of performance). Popular tools used are ChatGPT and Canva AI. The extent to which these training activities were used was mixed, based on respondents' professional experience and access to technical support. Although AI tools were found to improve the efficiency, variety of content, and teacher motivation, some pedagogical and ethical concerns were also raised. They are student reliance on “ready” content, erosion of critical thinking, questions of originality and plagiarism and the trustworthiness of information generated by AI. Educators emphasized the importance of intentional and directed use of AI in the classroom. In addition, they suggested that pre-service teacher training practices ought to incorporate creative scenario-based applications, ethics training, and classroom applications. In short, the research reveals the necessity of supporting teachers with essential digital literacies and pedagogic capabilities to enable the purposeful and ethical inclusion of AI tools within school settings.

Social studies education, artificial intelligence tools, teacher perspectives

YOUTH CITIZENS AND THEIR SOFT SKILLS IN THE CONTEXT OF UNIVERSITY ENTRANCE EXAM

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Soft skills are the intrapersonal and interpersonal skills necessary for personal development and social participation (Kechagias, 2011). These are essential components needed by citizens in a rapidly changing and highly interconnected world. In this study, three intrinsic skills have been selected for young people that are fundamental for success both at school and at work. Self-regulation is one of them. It has a central role in sustaining both academic and non-academic outcomes, and life satisfaction is one of these positive non-academic outcomes (Holliman et.al., 2021). Self-regulation is related to the self and requires a conscious awareness in the context of the self. In this study, it is hypothesised that there is a positive relationship between self-regulation, life satisfaction and mindfulness levels of young people preparing for the university entrance exam. In today's Turkey, the university entrance exam is regarded as one of the most important exams in life and affects both the current lives and future destinies of high school students. The sample consists of 180 students preparing for the university entrance exam in the library of a municipality in the capital of Turkey. Self-regulation (Arslan & Gelişli, 2015), life satisfaction (Köker, 1991) and mindfulness (Özyeşil et al., 2011) scales were used in the data collection process. The findings are discussed in the context of the university entrance process in Turkey and young citizens of the country. Suggestions for the perceived stress, motivation and academic achievement of young citizens in Turkey are presented.

Soft skills, young citizens, self-regulation, life satisfaction, mindful attention awareness

YOUTH CITIZENS AND THEIR SOFT SKILLS IN THE CONTEXT OF UNIVERSITY ENTRANCE EXAM

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With the increase in the use of screen-based devices and mobile applications, user experience and user interface design are needed more today. User interface and user experience are one of the most important elements of interaction design. Because the success of an application depends largely on its usability. For this reason, mobile applications increase the user's dependence on visual, auditory and tactile feedback for effective communication with interface design. While an application is being loaded, the user may experience problems with the application for various reasons. Therefore, feedback plays an important role in useful mobile application design. While users navigate the user interface, they experience a more functional and intuitive user experience by closing the gap between the user's actions and the application's response. It also provides feedback to users by providing clues about the results of their interactions. Thus, the application aims to develop according to the needs of the end user and provide maximum usability and customer satisfaction. This study examines the role, types and benefits of feedback in mobile application design. In addition, thanks to design approaches for application development, the focus has been on the adoption of user-centered design, and usability and feedback features have been examined.

Mobile interface, user interface, user experience, usability, feedback

THE POWER OF LETTERFORMS: AN EXAMINATION OF THE ROLE OF MONOGRAMS IN BRAND IDENTITY CONSTRUCTION

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Monograms are typographic design elements that unite letterforms in an aesthetic and symbolic composition to create a distinctive visual identity. Historically, they have appeared in royal crests, artist signatures, artisan marks, and the logos of luxury brands. This study aims to examine the role of monograms in brand identity construction across various dimensions, including sectoral distribution, temporal tendencies, and perceptual impacts. It also seeks to reassert the significance of typography in visual identity design, offering insights valuable for both academic research and professional design practice. The research is guided by three central questions: (1) How is monogram usage distributed across different sectors? (2) Do contemporary brands still prefer monogram-based logos? (3) Is there a meaningful relationship between the longevity of a brand and the use of monograms? This study employs document analysis and visual-historical examination of logos from global brands in industries such as fashion, finance, technology, and media. Findings indicate that monograms are particularly favored in prestige-oriented sectors and contribute to greater memorability and symbolic strength through visual continuity. While many newer brands tend to adopt abstract icons or simplified marks, modernized monograms continue to be employed as effective strategic tools. On the other hand, monogram usage appears to be declining on digital platforms due to increasing demands for agility and responsive design. The study's results are discussed in relation to existing literature on visual communication and brand identity, offering a nuanced understanding of how monograms continue to function at the intersection of tradition and contemporary branding strategies.

Monogram, brand identity, typography, logo design, visual communication

EMPLOYEE PERCEPTIONS OF SOCIAL SUSTAINABILITY: DOES ENGAGEMENT IN FOREIGN TRADE MAKE A DIFFERENCE?

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Issues such as environmental pollution, the rapid depletion of limited resources, product quality, employee rights, and social responsibility are gaining increasing importance in the business world. However, while many companies tend to focus primarily on the economic and environmental dimensions of sustainable development, the social dimension of sustainability is often neglected. Social sustainability can be defined as an approach that ensures the protection, promotion, and maintenance of values such as justice, balance, equality, well-being, health, and safety for future generations. In this context, social sustainability encompasses numerous elements, including human rights, the preservation of diversity, the enhancement of health and safety, and intergenerational equity (Widok, 2009). When considered within an ethical framework, the concept of social sustainability can be evaluated through the lens of the Cognitive Moral Development Theory (Kohlberg, 1975). The driving factors behind businesses' social sustainability efforts may include motivations based on rewards and punishments, tendencies toward social contracts, or inclinations toward universal moral principles. Customer pressure is recognized as a significant driving force in the adoption of the social aspects of sustainability throughout the supply chain (Najjar et al., 2020). Customers who value sustainability tend to emphasize the importance of appropriate working conditions and fair labour laws in the operations of supply chain partners. From this perspective, it is expected that businesses engaged in exports—particularly to developed countries and global corporations—will be more proactive regarding sustainability compared to others. In this regard, the aim of the present study is to examine whether the perceptions of employees regarding social sustainability practices differ between companies that engage in international trade and those that do not. To achieve this goal, employees will be asked to evaluate the practices of their organizations from their own perspective. The study will employ the “Social Sustainability Scale” developed by Mani et al. (2016) and will be conducted on a sample from the Marmara Region. The survey is expected to be completed by 200 employees working in both exporting and non-exporting firms. The data collected will be analysed using quantitative analysis methods.

Social sustainability, theory of cognitive moral development, international trade

REGIME SHIFTS IN NUCLEAR POWER PRODUCTION: A MARKOV SWITCHING APPROACH FOR HIGH-INCOME COUNTRIES

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Nuclear energy has emerged as a strategically vital component of the global energy mix, offering a low-carbon alternative amid the depletion and geographic concentration of fossil fuel reserves such as oil and natural gas. This study examines the nonlinear dynamics of per capita nuclear power generation in high-income countries over the period 1965–2022. Utilizing hidden Markov models, the analysis captures regime-dependent behavior without imposing parametric constraints. Model estimation is performed through a hybrid approach combining the Expectation–Maximization (EM) algorithm and nonlinear filtering techniques. The study explores key features including structural nonlinearity, the identification and classification of distinct regimes, and regime-specific heteroskedasticity. Furthermore, it analyzes predicted transition probabilities to evaluate the persistence and internal coherence of these regimes. The findings provide a nuanced understanding of the asymmetric and evolving nature of nuclear energy generation across advanced economies.

Nuclear energy, Markov Switching models, environmental economics, high-income economies

EQUIPPING ENTREPRENEURS FOR THE DIGITAL ERA: THE IMPACT OF DIGITAL LITERACY AND EDUCATION ON ENTREPRENEURIAL INTENTIONS

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Macro-level environmental factors in the business world also lead to changes in both the industrial environment and the micro-level environment of organizations. In particular, technological changes in the field of digital transformation and artificial intelligence, the adaptation of legal frameworks to these advancements, policy support such as the inclusion of digital transformation in development plans, economic benefits of AI applications, and social trends toward digitalization and intelligence are key macro-environmental factors that are rapidly forcing businesses to adapt.

For organizations aiming for sustainable success, it is essential to adapt to these changes and gain a competitive advantage. To reach these goals, the human resource of organizations must possess the necessary infrastructure. Especially in start-up entrepreneurship and corporate intrapreneurship activities, having young entrepreneurs with essential digital competencies is a critical prerequisite for taking initiative. The human capital of the digital age must possess appropriate digital competencies, receive quality entrepreneurship education, and be sufficiently motivated to take initiative.

In this context, this study quantitatively examines the relationship between Generation Z's perceptions of the entrepreneurship education they have received, their levels of digital literacy, and their tendencies toward digital entrepreneurship. Data was collected from 299 participants studying in Faculties of Economics and Administrative Sciences. The findings show a correlation between having a digital literacy background and satisfaction with entrepreneurship education, as well as digital entrepreneurship tendencies. Furthermore, a statistically significant difference in digital entrepreneurship tendencies is observed between participants who have received entrepreneurship education and those who have not.

Entrepreneurship, digital literacy, entrepreneurship education, entrepreneurial intention, digital competency

TYPING AS A DESIGN ELEMENT

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Undoubtedly, one of the most important means of expression we have as beings capable of thinking and communicating is writing. The main function of writing in its evolution from signs and symbols to today's alphabet systems has been to convey information. It was almost the end of the 19th century that writing, as a visual element, entered the agenda of the fields of art and design. Until that period, writing was seen only as a communication channel that fulfills the task of transmitting information. The diversification of printing techniques together with the developments in the industrial field has made the use of writing as a visual element as well as its basic function widespread. Some of the modern art and design movements have made the possibilities of using writing in an art or design product a part of both an experimental and planned process and have added it to their visual repertoire over time. Since the end of the 19th century, typefaces have become an important visual element of modern art and design movements, going beyond their function of transmitting information only printed on books. Writing has now evolved into a visual expression tool that has a story of its own and represents certain emotional or thought states by taking different forms. This research examines the use of writing as a design element in various art and design fields. The examination in question will undoubtedly serve to deepen the understanding of the possibilities of using writing as an art and design element. Various art and design fields such as painting, sculpture, graphic design, fashion design, industrial design and architecture were included in the scope of the research.

Typing, art, design

AWARENESS SCALE FOR THE SAFE USE OF INFORMATION TECHNOLOGIES FOR MIDDLE SCHOOL STUDENTS

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The aim of this study is to develop a valid and reliable scale to measure middle school students' awareness regarding the safe use of information technologies. The research is designed using the survey model, one of the quantitative research methods. The study group consists of 1,000 middle school students enrolled in public schools under the Ministry of National Education (MoNE). In the scale development process, a preliminary form consisting of 60 items was created based on the relevant literature and documents, and this form was reviewed by experts. The revised item pool was administered to 600 middle school students. The data collected from this administration were analyzed using Exploratory Factor Analysis (EFA), and the main scale form was constructed. The finalized scale form is currently being applied to a different sample of 400 middle school students. The data obtained from this phase will be analyzed using Confirmatory Factor Analysis (CFA) to test the construct validity. Additionally, Cronbach's Alpha reliability coefficient will be calculated to determine the internal consistency of the scale.

Safe use of information technologies, digital safety awareness, scale development